

# OCF Resource Type Specification

VERSION 1.0.0 | June 2017



**OPEN** CONNECTIVITY  
FOUNDATION™

**CONTACT** [admin@openconnectivity.org](mailto:admin@openconnectivity.org)

Copyright Open Connectivity Foundation, Inc. © 2016-2017.  
All Rights Reserved.

## Legal Disclaimer

NOTHING CONTAINED IN THIS DOCUMENT SHALL BE DEEMED AS GRANTING YOU ANY KIND OF LICENSE IN ITS CONTENT, EITHER EXPRESSLY OR IMPLIEDLY, OR TO ANY INTELLECTUAL PROPERTY OWNED OR CONTROLLED BY ANY OF THE AUTHORS OR DEVELOPERS OF THIS DOCUMENT. THE INFORMATION CONTAINED HEREIN IS PROVIDED ON AN "AS IS" BASIS, AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE AUTHORS AND DEVELOPERS OF THIS SPECIFICATION HEREBY DISCLAIM ALL OTHER WARRANTIES AND CONDITIONS, EITHER EXPRESS OR IMPLIED, STATUTORY OR AT COMMON LAW, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. OPEN CONNECTIVITY FOUNDATION, INC. FURTHER DISCLAIMS ANY AND ALL WARRANTIES OF NON-INFRINGEMENT, ACCURACY OR LACK OF VIRUSES.

The OCF logo is a trademark of Open Connectivity Foundation, Inc. in the United States or other countries. \*Other names and brands may be claimed as the property of others.

Copyright © 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.

Copying or other form of reproduction and/or distribution of these works are strictly prohibited.

## CONTENTS

1	Scope .....	29
2	Normative references .....	29
3	Terms, definitions, symbols and abbreviations .....	29
3.1	Terms and definitions .....	29
3.2	Symbols and abbreviations .....	30
4	Document conventions and organization .....	30
4.1	Conventions .....	30
4.2	Notation.....	30
4.3	Data types .....	31
5	Baseline Model Constructs .....	31
5.1	URI.....	31
5.2	Interfaces .....	32
5.3	RAML definition .....	32
5.4	Property definition .....	33
5.4.1	Common Properties.....	33
5.4.2	Resource Properties.....	33
5.4.3	Basic Resource Schema .....	34
5.4.4	CRUDN Operation Response Codes .....	34
5.5	Example Resource Definitions .....	35
5.6	Observable Resource Types.....	38
5.6.1	Overview .....	38
5.6.2	Conditional Notification .....	38
5.7	Composite Resource Types.....	41
5.8	Specification Version .....	43
6	Resource Type definitions .....	43
6.1	Introduction .....	43
6.2	Air Flow .....	47
6.2.1	Introduction .....	47
6.2.2	Example URI .....	47
6.2.3	Resource Type .....	47
6.2.4	RAML Definition .....	47
6.2.5	Property Definition .....	51
6.2.6	CRUDN behavior.....	52
6.3	Air Flow Control.....	52
6.3.1	Introduction .....	52
6.3.2	Example URI .....	52
6.3.3	Resource Type .....	52
6.3.4	RAML Definition .....	52
6.3.5	Property Definition .....	56

63	6.3.6	CRUDN behavior .....	56
64	6.4	Battery .....	56
65	6.4.1	Introduction .....	56
66	6.4.2	Example URI .....	56
67	6.4.3	Resource Type .....	56
68	6.4.4	RAML Definition .....	56
69	6.4.5	Property Definition .....	57
70	6.4.6	CRUDN behavior .....	57
71	6.5	Binary Switch .....	57
72	6.5.1	Introduction .....	57
73	6.5.2	Example URI .....	57
74	6.5.3	Resource Type .....	57
75	6.5.4	RAML Definition .....	57
76	6.5.5	Property Definition .....	59
77	6.5.6	CRUDN behavior .....	60
78	6.6	Brightness .....	60
79	6.6.1	Introduction .....	60
80	6.6.2	Example URI .....	60
81	6.6.3	Resource Type .....	60
82	6.6.4	RAML Definition .....	60
83	6.6.5	Property Definition .....	62
84	6.6.6	CRUDN behavior .....	62
85	6.7	Colour Chroma .....	63
86	6.7.1	Introduction .....	63
87	6.7.2	Example URI .....	63
88	6.7.3	Resource Type .....	63
89	6.7.4	RAML Definition .....	63
90	6.7.5	Property Definition .....	66
91	6.7.6	CRUDN behavior .....	66
92	6.8	Colour RGB .....	66
93	6.8.1	Introduction .....	66
94	6.8.2	Example URI .....	67
95	6.8.3	Resource Type .....	67
96	6.8.4	RAML Definition .....	67
97	6.8.5	Property Definition .....	69
98	6.8.6	CRUDN behavior .....	69
99	6.9	Dimming .....	69
100	6.9.1	Introduction .....	69
101	6.9.2	Example URI .....	69
102	6.9.3	Resource Type .....	69
103	6.9.4	RAML Definition .....	70
104	6.9.5	Property Definition .....	72
105	6.9.6	CRUDN behavior .....	73
106	6.10	Door .....	73

107	6.10.1	Introduction .....	73
108	6.10.2	Example URI .....	73
109	6.10.3	Resource Type .....	73
110	6.10.4	RAML Definition .....	73
111	6.10.5	Property Definition .....	75
112	6.10.6	CRUDN behavior .....	76
113	6.11	Energy Consumption .....	76
114	6.11.1	Introduction .....	76
115	6.11.2	Example URI .....	76
116	6.11.3	Resource Type .....	76
117	6.11.4	RAML Definition .....	76
118	6.11.5	Property Definition .....	77
119	6.11.6	CRUDN behavior .....	77
120	6.12	Energy Usage .....	77
121	6.12.1	Introduction .....	77
122	6.12.2	Example URI .....	77
123	6.12.3	Resource Type .....	77
124	6.12.4	RAML Definition .....	77
125	6.12.5	CRUDN behavior .....	79
126	6.13	Humidity .....	79
127	6.13.1	Introduction .....	79
128	6.13.2	Example URI .....	79
129	6.13.3	Resource Type .....	79
130	6.13.4	RAML Definition .....	79
131	6.13.5	Property Definition .....	81
132	6.13.6	CRUDN behavior .....	81
133	6.14	Ice Maker .....	81
134	6.14.1	Introduction .....	81
135	6.14.2	Example URI .....	81
136	6.14.3	Resource Type .....	82
137	6.14.4	RAML Definition .....	82
138	6.14.5	Property Definition .....	84
139	6.14.6	CRUDN behavior .....	85
140	6.15	Lock .....	85
141	6.15.1	Introduction .....	85
142	6.15.2	Example URI .....	85
143	6.15.3	Resource Type .....	85
144	6.15.4	RAML Definition .....	85
145	6.15.5	Property Definition .....	88
146	6.15.6	CRUDN behavior .....	88
147	6.16	Lock Code .....	88
148	6.16.1	Introduction .....	88
149	6.16.2	Example URI .....	88
150	6.16.3	Resource Type .....	88

151	6.16.4	RAML Definition .....	88
152	6.16.5	Property Definition .....	90
153	6.16.6	CRUDN behavior .....	90
154	6.17	Mode .....	90
155	6.17.1	Introduction .....	90
156	6.17.2	Example URI .....	90
157	6.17.3	Resource Type .....	91
158	6.17.4	RAML Definition .....	91
159	6.17.5	Property Definition .....	94
160	6.17.6	CRUDN behavior .....	94
161	6.18	Open Level .....	94
162	6.18.1	Introduction .....	94
163	6.18.2	Example URI .....	94
164	6.18.3	Resource Type .....	94
165	6.18.4	RAML Definition .....	94
166	6.18.5	Property Definition .....	97
167	6.18.6	CRUDN behavior .....	98
168	6.19	Operational State .....	98
169	6.19.1	Introduction .....	98
170	6.19.2	Example URI .....	98
171	6.19.3	Resource Type .....	98
172	6.19.4	RAML Definition .....	98
173	6.19.5	Property Definition .....	102
174	6.19.6	CRUDN behavior .....	103
175	6.20	Ramp Time .....	103
176	6.20.1	Introduction .....	103
177	6.20.2	Example URI .....	103
178	6.20.3	Resource Type .....	103
179	6.20.4	RAML Definition .....	103
180	6.20.5	Property Definition .....	106
181	6.20.6	CRUDN behavior .....	106
182	6.21	Refrigeration .....	106
183	6.21.1	Introduction .....	106
184	6.21.2	Example URI .....	106
185	6.21.3	Resource Type .....	106
186	6.21.4	RAML Definition .....	106
187	6.21.5	Property Definition .....	109
188	6.21.6	CRUDN behavior .....	110
189	6.22	Temperature .....	110
190	6.22.1	Introduction .....	110
191	6.22.2	Example URI .....	110
192	6.22.3	Resource Type .....	110
193	6.22.4	RAML Definition .....	110
194	6.22.5	Property Definition .....	114

195	6.22.6	CRUDN behavior .....	114
196	6.23	Time Period .....	114
197	6.23.1	Introduction .....	114
198	6.23.2	Example URI .....	114
199	6.23.3	Resource Type .....	114
200	6.23.4	RAML Definition .....	114
201	6.23.5	Property Definition .....	117
202	6.23.6	CRUDN behavior .....	117
203	6.24	Activity Count .....	118
204	6.24.1	Introduction .....	118
205	6.24.2	Example URI .....	118
206	6.24.3	Resource Type .....	118
207	6.24.4	RAML Definition .....	118
208	6.24.5	Property Definition .....	120
209	6.24.6	CRUDN behavior .....	120
210	6.25	Atmospheric Pressure Sensor .....	120
211	6.25.1	Introduction .....	120
212	6.25.2	Example URI .....	120
213	6.25.3	Resource Type .....	120
214	6.25.4	RAML Definition .....	120
215	6.25.5	Property Definition .....	121
216	6.25.6	CRUDN behavior .....	121
217	6.26	Audio Controls .....	121
218	6.26.1	Introduction .....	121
219	6.26.2	Example URI .....	122
220	6.26.3	Resource Type .....	122
221	6.26.4	RAML Definition .....	122
222	6.26.5	Property Definition .....	124
223	6.26.6	CRUDN behavior .....	124
224	6.27	Auto Focus .....	124
225	6.27.1	Introduction .....	124
226	6.27.2	Example URI .....	124
227	6.27.3	Resource Type .....	124
228	6.27.4	RAML Definition .....	124
229	6.27.5	Property Definition .....	127
230	6.27.6	CRUDN behavior .....	127
231	6.28	Automatic Document Feeder .....	127
232	6.28.1	Introduction .....	127
233	6.28.2	Example URI .....	127
234	6.28.3	Resource Type .....	127
235	6.28.4	RAML Definition .....	127
236	6.28.5	Property Definition .....	128
237	6.28.6	CRUDN behavior .....	128
238	6.29	Button Switch .....	128

239	6.29.1	Introduction .....	128
240	6.29.2	Example URI .....	128
241	6.29.3	Resource Type .....	129
242	6.29.4	RAML Definition .....	129
243	6.29.5	Property Definition .....	130
244	6.29.6	CRUDN behavior .....	130
245	6.30	Carbon Dioxide Sensor .....	130
246	6.30.1	Introduction .....	130
247	6.30.2	Example URI .....	130
248	6.30.3	Resource Type .....	130
249	6.30.4	RAML Definition .....	130
250	6.30.5	Property Definition .....	131
251	6.30.6	CRUDN behavior .....	131
252	6.31	Carbon Monoxide Sensor .....	131
253	6.31.1	Introduction .....	131
254	6.31.2	Example URI .....	131
255	6.31.3	Resource Type .....	131
256	6.31.4	RAML Definition .....	131
257	6.31.5	Property Definition .....	132
258	6.31.6	CRUDN behavior .....	132
259	6.32	Auto White Balance .....	132
260	6.32.1	Introduction .....	132
261	6.32.2	Example URI .....	132
262	6.32.3	Resource Type .....	132
263	6.32.4	RAML Definition .....	132
264	6.32.5	Property Definition .....	135
265	6.32.6	CRUDN behavior .....	135
266	6.33	Colour Saturation .....	135
267	6.33.1	Introduction .....	135
268	6.33.2	Example URI .....	135
269	6.33.3	Resource Type .....	135
270	6.33.4	RAML Definition .....	135
271	6.33.5	Property Definition .....	137
272	6.33.6	CRUDN behavior .....	137
273	6.34	Contact Sensor .....	137
274	6.34.1	Introduction .....	137
275	6.34.2	Example URI .....	137
276	6.34.3	Resource Type .....	137
277	6.34.4	RAML Definition .....	138
278	6.34.5	Property Definition .....	138
279	6.34.6	CRUDN behavior .....	139
280	6.35	Demand Response Load Control (DRLC) .....	139
281	6.35.1	Introduction .....	139
282	6.35.2	Example URI .....	139



283	6.35.3	Resource Type .....	139
284	6.35.4	RAML Definition .....	139
285	6.35.5	Property Definition .....	142
286	6.35.6	CRUDN behavior .....	142
287	6.36	Energy Overload/Circuit Breaker .....	143
288	6.36.1	Introduction .....	143
289	6.36.2	Example URI .....	143
290	6.36.3	Resource Type .....	143
291	6.36.4	RAML Definition .....	143
292	6.36.5	Property Definition .....	144
293	6.36.6	CRUDN behavior .....	144
294	6.37	Generic Sensor .....	144
295	6.37.1	Introduction .....	144
296	6.37.2	Example URI .....	144
297	6.37.3	Resource Type .....	144
298	6.37.4	RAML Definition .....	144
299	6.37.5	Property Definition .....	145
300	6.37.6	CRUDN behavior .....	145
301	6.38	Glass Break Sensor .....	145
302	6.38.1	Introduction .....	145
303	6.38.2	Example URI .....	145
304	6.38.3	Resource Type .....	145
305	6.38.4	RAML Definition .....	145
306	6.38.5	Property Definition .....	146
307	6.38.6	CRUDN behavior .....	146
308	6.39	Heart Rate Zone .....	146
309	6.39.1	Introduction .....	146
310	6.39.2	Example URI .....	147
311	6.39.3	Resource Type .....	147
312	6.39.4	RAML Definition .....	147
313	6.39.5	Property Definition .....	148
314	6.39.6	CRUDN behavior .....	148
315	6.40	Illuminance Sensor .....	148
316	6.40.1	Introduction .....	148
317	6.40.2	Example URI .....	148
318	6.40.3	Resource Type .....	148
319	6.40.4	RAML Definition .....	148
320	6.40.5	Property Definition .....	149
321	6.40.6	CRUDN behavior .....	149
322	6.41	Magnetic Field Direction Sensor .....	149
323	6.41.1	Introduction .....	149
324	6.41.2	Example URI .....	149
325	6.41.3	Resource Type .....	149
326	6.41.4	RAML Definition .....	149

327	6.41.5	Property Definition .....	150
328	6.41.6	CRUDN behavior.....	150
329	6.42	Media .....	151
330	6.42.1	Introduction .....	151
331	6.42.2	Example URI .....	151
332	6.42.3	Resource Type .....	151
333	6.42.4	RAML Definition .....	151
334	6.42.5	Property Definition .....	152
335	6.42.6	CRUDN behavior.....	153
336	6.43	Media Source .....	153
337	6.43.1	Introduction .....	153
338	6.43.2	Example URI .....	153
339	6.43.3	Resource Type .....	153
340	6.43.4	RAML Definition .....	153
341	6.43.5	Property Definition .....	156
342	6.43.6	CRUDN behavior.....	156
343	6.44	Media Source List.....	156
344	6.44.1	Introduction .....	156
345	6.44.2	Example URI .....	156
346	6.44.3	Resource Type .....	156
347	6.44.4	RAML Definition .....	156
348	6.44.5	Property Definition .....	159
349	6.44.6	CRUDN behavior.....	159
350	6.44.7	Referenced JSON schemas.....	160
351	6.45	Media Source Input .....	160
352	6.45.1	Introduction .....	160
353	6.45.2	Example URI .....	160
354	6.45.3	Resource Type .....	160
355	6.45.4	RAML Definition .....	160
356	6.45.5	Property Definition .....	163
357	6.45.6	CRUDN behavior.....	163
358	6.46	Media Source Output.....	163
359	6.46.1	Introduction .....	163
360	6.46.2	Example URI .....	163
361	6.46.3	Resource Type .....	163
362	6.46.4	RAML Definition .....	163
363	6.46.5	Property Definition .....	166
364	6.46.6	CRUDN behavior.....	166
365	6.47	Motion Sensor .....	166
366	6.47.1	Introduction .....	166
367	6.47.2	Example URI .....	166
368	6.47.3	Resource Type .....	166
369	6.47.4	RAML Definition .....	166
370	6.47.5	Property Definition .....	167

371	6.47.6	CRUDN behavior .....	167
372	6.48	Night Mode .....	167
373	6.48.1	Introduction .....	167
374	6.48.2	Example URI .....	167
375	6.48.3	Resource Type .....	167
376	6.48.4	RAML Definition .....	167
377	6.48.5	Property Definition .....	169
378	6.48.6	CRUDN behavior .....	170
379	6.49	Presence Sensor .....	170
380	6.49.1	Introduction .....	170
381	6.49.2	Example URI .....	170
382	6.49.3	Resource Type .....	170
383	6.49.4	RAML Definition .....	170
384	6.49.5	Property Definition .....	171
385	6.49.6	CRUDN behavior .....	171
386	6.50	Pan Tilt Zoom Movement .....	171
387	6.50.1	Introduction .....	171
388	6.50.2	Example URI .....	171
389	6.50.3	Resource Type .....	171
390	6.50.4	RAML Definition .....	171
391	6.50.5	Property Definition .....	175
392	6.50.6	CRUDN behavior .....	176
393	6.51	Signal Strength .....	176
394	6.51.1	Introduction .....	176
395	6.51.2	Example URI .....	176
396	6.51.3	Resource Type .....	176
397	6.51.4	RAML Definition .....	176
398	6.51.5	Property Definition .....	177
399	6.51.6	CRUDN behavior .....	177
400	6.52	Speech Synthesis-TTS .....	177
401	6.52.1	Introduction .....	177
402	6.52.2	Example URI .....	177
403	6.52.3	Resource Type .....	177
404	6.52.4	RAML Definition .....	177
405	6.52.5	Property Definition .....	180
406	6.52.6	CRUDN behavior .....	181
407	6.53	Touch Sensor .....	181
408	6.53.1	Introduction .....	181
409	6.53.2	Example URI .....	181
410	6.53.3	Resource Type .....	181
411	6.53.4	RAML Definition .....	181
412	6.53.5	Property Definition .....	182
413	6.53.6	CRUDN behavior .....	182
414	6.54	UV Radiation .....	182

415	6.54.1	Introduction .....	182
416	6.54.2	Example URI .....	182
417	6.54.3	Resource Type .....	182
418	6.54.4	RAML Definition .....	182
419	6.54.5	Property Definition .....	183
420	6.54.6	CRUDN behavior .....	183
421	6.55	Water Sensor .....	183
422	6.55.1	Introduction .....	183
423	6.55.2	Example URI .....	183
424	6.55.3	Resource Type .....	183
425	6.55.4	RAML Definition .....	183
426	6.55.5	Property Definition .....	184
427	6.55.6	CRUDN behavior .....	184
428	6.56	Acceleration Sensor .....	185
429	6.56.1	Introduction .....	185
430	6.56.2	Example URI .....	185
431	6.56.3	Resource Type .....	185
432	6.56.4	RAML Definition .....	185
433	6.56.5	Property Definition .....	186
434	6.56.6	CRUDN behavior .....	186
435	6.57	Movement.....	186
436	6.57.1	Introduction .....	186
437	6.57.2	Example URI .....	186
438	6.57.3	Resource Type .....	186
439	6.57.4	RAML Definition .....	186
440	6.57.5	Property Definition .....	189
441	6.57.6	CRUDN behavior .....	189
442	6.58	Sleep Sensor.....	189
443	6.58.1	Introduction .....	189
444	6.58.2	Example URI .....	189
445	6.58.3	Resource Type .....	189
446	6.58.4	RAML Definition .....	189
447	6.58.5	Property Definition .....	190
448	6.58.6	CRUDN behavior .....	190
449	6.59	Smoke Sensor .....	190
450	6.59.1	Introduction .....	190
451	6.59.2	Example URI .....	190
452	6.59.3	Resource Type .....	191
453	6.59.4	RAML Definition .....	191
454	6.59.5	Property Definition .....	191
455	6.59.6	CRUDN behavior .....	192
456	6.60	Three Axis Sensor .....	192
457	6.60.1	Introduction .....	192
458	6.60.2	Example URI .....	192

459	6.60.3	Resource Type .....	192
460	6.60.4	RAML Definition .....	192
461	6.60.5	Property Definition .....	193
462	6.60.6	CRUDN behavior .....	193
463	6.61	Altimeter .....	193
464	6.61.1	Introduction .....	193
465	6.61.2	Example URI .....	193
466	6.61.3	Resource Type .....	193
467	6.61.4	RAML Definition .....	193
468	6.61.5	Property Definition .....	194
469	6.61.6	CRUDN behavior .....	194
470	6.62	Clock .....	195
471	6.62.1	Introduction .....	195
472	6.62.2	Example URI .....	195
473	6.62.3	Resource Type .....	195
474	6.62.4	RAML Definition .....	195
475	6.62.5	Property Definition .....	198
476	6.62.6	CRUDN behavior .....	198
477	6.63	Geolocation .....	198
478	6.63.1	Introduction .....	198
479	6.63.2	Example URI .....	198
480	6.63.3	Resource Type .....	198
481	6.63.4	RAML Definition .....	199
482	6.63.5	Property Definition .....	200
483	6.63.6	CRUDN behavior .....	201
484	6.64	Height .....	201
485	6.64.1	Introduction .....	201
486	6.64.2	Example URI .....	201
487	6.64.3	Resource Type .....	201
488	6.64.4	RAML Definition .....	201
489	6.64.5	Property Definition .....	204
490	6.64.6	CRUDN behavior .....	204
491	6.65	Weight .....	204
492	6.65.1	Introduction .....	204
493	6.65.2	Example URI .....	204
494	6.65.3	Resource Type .....	204
495	6.65.4	RAML Definition .....	204
496	6.65.5	Property Definition .....	205
497	6.65.6	CRUDN behavior .....	205
498	6.66	Air Quality .....	205
499	6.66.1	Introduction .....	205
500	6.66.2	Example URI .....	206
501	6.66.3	Resource Type .....	206
502	6.66.4	RAML Definition .....	206

503	6.66.5	Property Definition .....	207
504	6.66.6	CRUDN behavior.....	207
505	6.67	Air Quality Collection .....	207
506	6.67.1	Introduction .....	207
507	6.67.2	Example URI .....	208
508	6.67.3	Resource Type .....	208
509	6.67.4	RAML Definition .....	208
510	6.67.5	Property Definition .....	209
511	6.67.6	CRUDN behavior.....	210
512	6.67.7	Referenced JSON schemas.....	210
513	6.68	Consumable .....	211
514	6.68.1	Introduction .....	211
515	6.68.2	Example URI .....	211
516	6.68.3	Resource Type .....	211
517	6.68.4	RAML Definition .....	211
518	6.68.5	Property Definition .....	213
519	6.68.6	CRUDN behavior.....	213
520	6.69	Consumable Collection .....	213
521	6.69.1	Introduction .....	213
522	6.69.2	Example URI .....	213
523	6.69.3	Resource Type .....	213
524	6.69.4	RAML Definition .....	213
525	6.69.5	Property Definition .....	215
526	6.69.6	CRUDN behavior.....	216
527	6.69.7	Referenced JSON schemas.....	216
528	6.70	Delay Defrost .....	217
529	6.70.1	Introduction .....	217
530	6.70.2	Example URI .....	217
531	6.70.3	Resource Type .....	217
532	6.70.4	RAML Definition .....	217
533	6.70.5	Property Definition .....	221
534	6.70.6	CRUDN behavior.....	222
535	6.70.7	Referenced JSON schemas.....	222
536	6.71	Eco Mode .....	222
537	6.71.1	Introduction .....	222
538	6.71.2	Example URI .....	223
539	6.71.3	Resource Type .....	223
540	6.71.4	RAML Definition .....	223
541	6.71.5	Property Definition .....	225
542	6.71.6	CRUDN behavior.....	225
543	6.71.7	Referenced JSON schemas.....	225
544	6.72	Heating Zone.....	226
545	6.72.1	Introduction .....	226
546	6.72.2	Example URI .....	226

547	6.72.3	Resource Type .....	226
548	6.72.4	RAML Definition .....	226
549	6.72.5	Property Definition .....	227
550	6.72.6	CRUDN behavior .....	227
551	6.73	Heating Zone Collection .....	227
552	6.73.1	Introduction .....	227
553	6.73.2	Example URI .....	227
554	6.73.3	Resource Type .....	227
555	6.73.4	RAML Definition .....	228
556	6.73.5	Property Definition .....	229
557	6.73.6	CRUDN behavior .....	230
558	6.73.7	Referenced JSON schemas.....	230
559	6.74	Selectable Levels .....	231
560	6.74.1	Introduction .....	231
561	6.74.2	Example URI .....	231
562	6.74.3	Resource Type .....	231
563	6.74.4	RAML Definition .....	231
564	6.74.5	Property Definition .....	235
565	6.74.6	CRUDN behavior .....	235
566	6.75	Value Conditional .....	235
567	6.75.1	Introduction .....	235
568	6.75.2	Example URI .....	235
569	6.75.3	Resource Type .....	235
570	6.75.4	RAML Definition .....	235
571	6.75.5	Property Definition .....	238
572	6.75.6	CRUDN behavior .....	238
573	Annex A	Base Resource .....	239
574	A.1	Base Resource Schema .....	239
575	A.1.1	Introduction .....	239
576	A.1.2	Example URI .....	239
577	A.1.3	Resource Type .....	239
578	A.1.4	RAML Definition .....	239
579	A.1.5	Property Definition .....	242
580	A.1.6	CRUDN behavior .....	243
581	A.1.7	Referenced JSON schemas.....	243
582	A.1.8	oic.core.json.....	243
583	Annex B	Swagger 2.0 .....	245
584	B.1	Acceleration Sensor .....	245
585	B.1.1	Introduction .....	245
586	B.1.2	Example URI .....	245
587	B.1.3	Resource Type .....	245
588	B.1.4	Swagger2.0 Definition .....	245
589	B.1.5	Property Definition .....	247
590	B.1.6	CRUDN behaviour .....	248

591	B.2	Activity Count .....	248
592	B.2.1	Introduction .....	248
593	B.2.2	Example URI .....	248
594	B.2.3	Resource Type .....	248
595	B.2.4	Swagger2.0 Definition .....	248
596	B.2.5	Property Definition .....	251
597	B.2.6	CRUDN behaviour .....	252
598	B.3	Air Flow .....	252
599	B.3.1	Introduction .....	252
600	B.3.2	Example URI .....	252
601	B.3.3	Resource Type .....	252
602	B.3.4	Swagger2.0 Definition .....	252
603	B.3.5	Property Definition .....	256
604	B.3.6	CRUDN behaviour .....	257
605	B.4	Air Flow Control .....	257
606	B.4.1	Introduction .....	257
607	B.4.2	Example URI .....	257
608	B.4.3	Resource Type .....	257
609	B.4.4	Swagger2.0 Definition .....	257
610	B.4.5	Property Definition .....	265
611	B.4.6	CRUDN behaviour .....	266
612	B.5	Air Quality .....	266
613	B.5.1	Introduction .....	266
614	B.5.2	Example URI .....	267
615	B.5.3	Resource Type .....	267
616	B.5.4	Swagger2.0 Definition .....	267
617	B.5.5	Property Definition .....	270
618	B.5.6	CRUDN behaviour .....	270
619	B.6	Air Quality Collection .....	271
620	B.6.1	Introduction .....	271
621	B.6.2	Example URI .....	271
622	B.6.3	Resource Type .....	271
623	B.6.4	Swagger2.0 Definition .....	271
624	B.6.5	Property Definition .....	278
625	B.6.6	CRUDN behaviour .....	280
626	B.7	Altimeter .....	280
627	B.7.1	Introduction .....	280
628	B.7.2	Example URI .....	280
629	B.7.3	Resource Type .....	280
630	B.7.4	Swagger2.0 Definition .....	280
631	B.7.5	Property Definition .....	283
632	B.7.6	CRUDN behaviour .....	283
633	B.8	Atmospheric Pressure Sensor .....	284
634	B.8.1	Introduction .....	284



635	B.8.2	Example URI .....	284
636	B.8.3	Resource Type .....	284
637	B.8.4	Swagger2.0 Definition .....	284
638	B.8.5	Property Definition .....	286
639	B.8.6	CRUDN behaviour .....	287
640	B.9	Audio Controls .....	287
641	B.9.1	Introduction .....	287
642	B.9.2	Example URI .....	287
643	B.9.3	Resource Type .....	287
644	B.9.4	Swagger2.0 Definition .....	287
645	B.9.5	Property Definition .....	290
646	B.9.6	CRUDN behaviour .....	291
647	B.10	Auto Focus .....	291
648	B.10.1	Introduction .....	291
649	B.10.2	Example URI .....	291
650	B.10.3	Resource Type .....	291
651	B.10.4	Swagger2.0 Definition .....	291
652	B.10.5	Property Definition .....	294
653	B.10.6	CRUDN behaviour .....	295
654	B.11	Automatic Document Feeder .....	295
655	B.11.1	Introduction .....	295
656	B.11.2	Example URI .....	295
657	B.11.3	Resource Type .....	295
658	B.11.4	Swagger2.0 Definition .....	295
659	B.11.5	Property Definition .....	298
660	B.11.6	CRUDN behaviour .....	298
661	B.12	Base Resource Schema .....	299
662	B.12.1	Introduction .....	299
663	B.12.2	Example URI .....	299
664	B.12.3	Resource Type .....	299
665	B.12.4	Swagger2.0 Definition .....	299
666	B.12.5	Property Definition .....	302
667	B.12.6	CRUDN behaviour .....	302
668	B.13	Battery .....	302
669	B.13.1	Introduction .....	302
670	B.13.2	Example URI .....	303
671	B.13.3	Resource Type .....	303
672	B.13.4	Swagger2.0 Definition .....	303
673	B.13.5	Property Definition .....	308
674	B.13.6	CRUDN behaviour .....	309
675	B.14	Binary Switch .....	309
676	B.14.1	Introduction .....	309
677	B.14.2	Example URI .....	309
678	B.14.3	Resource Type .....	309

679	B.14.4	Swagger2.0 Definition .....	309
680	B.14.5	Property Definition .....	312
681	B.14.6	CRUDN behaviour .....	312
682	B.15	Brightness .....	313
683	B.15.1	Introduction .....	313
684	B.15.2	Example URI .....	313
685	B.15.3	Resource Type .....	313
686	B.15.4	Swagger2.0 Definition .....	313
687	B.15.5	Property Definition .....	316
688	B.15.6	CRUDN behaviour .....	316
689	B.16	Button Switch .....	317
690	B.16.1	Introduction .....	317
691	B.16.2	Example URI .....	317
692	B.16.3	Resource Type .....	317
693	B.16.4	Swagger2.0 Definition .....	317
694	B.16.5	Property Definition .....	319
695	B.16.6	CRUDN behaviour .....	319
696	B.17	Carbon Dioxide Sensor .....	320
697	B.17.1	Introduction .....	320
698	B.17.2	Example URI .....	320
699	B.17.3	Resource Type .....	320
700	B.17.4	Swagger2.0 Definition .....	320
701	B.17.5	Property Definition .....	322
702	B.17.6	CRUDN behaviour .....	322
703	B.18	Carbon Monoxide Sensor .....	323
704	B.18.1	Introduction .....	323
705	B.18.2	Example URI .....	323
706	B.18.3	Resource Type .....	323
707	B.18.4	Swagger2.0 Definition .....	323
708	B.18.5	Property Definition .....	325
709	B.18.6	CRUDN behaviour .....	325
710	B.19	Clock .....	326
711	B.19.1	Introduction .....	326
712	B.19.2	Example URI .....	326
713	B.19.3	Resource Type .....	326
714	B.19.4	Swagger2.0 Definition .....	326
715	B.19.5	Property Definition .....	329
716	B.19.6	CRUDN behaviour .....	330
717	B.20	Auto White Balance .....	330
718	B.20.1	Introduction .....	330
719	B.20.2	Example URI .....	330
720	B.20.3	Resource Type .....	330
721	B.20.4	Swagger2.0 Definition .....	330
722	B.20.5	Property Definition .....	333

723	B.20.6	CRUDN behaviour .....	333
724	B.21	Colour Saturation .....	334
725	B.21.1	Introduction .....	334
726	B.21.2	Example URI .....	334
727	B.21.3	Resource Type .....	334
728	B.21.4	Swagger2.0 Definition .....	334
729	B.21.5	Property Definition .....	337
730	B.21.6	CRUDN behaviour .....	337
731	B.22	Colour Chroma .....	337
732	B.22.1	Introduction .....	337
733	B.22.2	Example URI .....	338
734	B.22.3	Resource Type .....	338
735	B.22.4	Swagger2.0 Definition .....	338
736	B.22.5	Property Definition .....	341
737	B.22.6	CRUDN behaviour .....	342
738	B.23	Colour RGB .....	342
739	B.23.1	Introduction .....	342
740	B.23.2	Example URI .....	343
741	B.23.3	Resource Type .....	343
742	B.23.4	Swagger2.0 Definition .....	343
743	B.23.5	Property Definition .....	346
744	B.23.6	CRUDN behaviour .....	346
745	B.24	Consumable .....	346
746	B.24.1	Introduction .....	346
747	B.24.2	Example URI .....	347
748	B.24.3	Resource Type .....	347
749	B.24.4	Swagger2.0 Definition .....	347
750	B.24.5	Property Definition .....	350
751	B.24.6	CRUDN behaviour .....	350
752	B.25	Consumables.....	350
753	B.25.1	Introduction .....	350
754	B.25.2	Example URI .....	351
755	B.25.3	Resource Type .....	351
756	B.25.4	Swagger2.0 Definition .....	351
757	B.25.5	Property Definition .....	358
758	B.25.6	CRUDN behaviour .....	360
759	B.26	Contact Sensor.....	360
760	B.26.1	Introduction .....	360
761	B.26.2	Example URI .....	361
762	B.26.3	Resource Type .....	361
763	B.26.4	Swagger2.0 Definition .....	361
764	B.26.5	Property Definition .....	363
765	B.26.6	CRUDN behaviour.....	363
766	B.27	Delay Defrost .....	363

767	B.27.1	Introduction .....	363
768	B.27.2	Example URI .....	364
769	B.27.3	Resource Type .....	364
770	B.27.4	Swagger2.0 Definition .....	364
771	B.27.5	Property Definition .....	367
772	B.27.6	CRUDN behaviour .....	368
773	B.28	Dimming .....	368
774	B.28.1	Introduction .....	368
775	B.28.2	Example URI .....	368
776	B.28.3	Resource Type .....	368
777	B.28.4	Swagger2.0 Definition .....	369
778	B.28.5	Property Definition .....	372
779	B.28.6	CRUDN behaviour .....	372
780	B.29	Door .....	372
781	B.29.1	Introduction .....	372
782	B.29.2	Example URI .....	373
783	B.29.3	Resource Type .....	373
784	B.29.4	Swagger2.0 Definition .....	373
785	B.29.5	Property Definition .....	377
786	B.29.6	CRUDN behaviour .....	379
787	B.30	Demand Response Load Control (DRLC) .....	379
788	B.30.1	Introduction .....	379
789	B.30.2	Example URI .....	379
790	B.30.3	Resource Type .....	379
791	B.30.4	Swagger2.0 Definition .....	379
792	B.30.5	Property Definition .....	383
793	B.30.6	CRUDN behaviour .....	383
794	B.31	Eco Mode .....	383
795	B.31.1	Introduction .....	383
796	B.31.2	Example URI .....	384
797	B.31.3	Resource Type .....	384
798	B.31.4	Swagger2.0 Definition .....	384
799	B.31.5	Property Definition .....	389
800	B.31.6	CRUDN behaviour .....	390
801	B.32	Energy Consumption .....	390
802	B.32.1	Introduction .....	390
803	B.32.2	Example URI .....	390
804	B.32.3	Resource Type .....	390
805	B.32.4	Swagger2.0 Definition .....	390
806	B.32.5	Property Definition .....	393
807	B.32.6	CRUDN behaviour .....	393
808	B.33	Energy Overload/Circuit Breaker .....	393
809	B.33.1	Introduction .....	393
810	B.33.2	Example URI .....	393

811	B.33.3	Resource Type .....	394
812	B.33.4	Swagger2.0 Definition .....	394
813	B.33.5	Property Definition .....	396
814	B.33.6	CRUDN behaviour .....	396
815	B.34	Energy Usage .....	396
816	B.34.1	Introduction .....	396
817	B.34.2	Example URI .....	396
818	B.34.3	Resource Type .....	397
819	B.34.4	Swagger2.0 Definition .....	397
820	B.34.5	Property Definition .....	401
821	B.34.6	CRUDN behaviour .....	402
822	B.35	Generic Sensor .....	402
823	B.35.1	Introduction .....	402
824	B.35.2	Example URI .....	402
825	B.35.3	Resource Type .....	402
826	B.35.4	Swagger2.0 Definition .....	402
827	B.35.5	Property Definition .....	405
828	B.35.6	CRUDN behaviour .....	405
829	B.36	Geolocation .....	405
830	B.36.1	Introduction .....	405
831	B.36.2	Example URI .....	405
832	B.36.3	Resource Type .....	405
833	B.36.4	Swagger2.0 Definition .....	405
834	B.36.5	Property Definition .....	409
835	B.36.6	CRUDN behaviour .....	410
836	B.37	Glass Break Sensor .....	410
837	B.37.1	Introduction .....	410
838	B.37.2	Example URI .....	410
839	B.37.3	Resource Type .....	410
840	B.37.4	Swagger2.0 Definition .....	410
841	B.37.5	Property Definition .....	412
842	B.37.6	CRUDN behaviour .....	413
843	B.38	Heart Rate Zone .....	413
844	B.38.1	Introduction .....	413
845	B.38.2	Example URI .....	413
846	B.38.3	Resource Type .....	413
847	B.38.4	Swagger2.0 Definition .....	413
848	B.38.5	Property Definition .....	416
849	B.38.6	CRUDN behaviour .....	416
850	B.39	Heating Zone .....	416
851	B.39.1	Introduction .....	416
852	B.39.2	Example URI .....	416
853	B.39.3	Resource Type .....	417
854	B.39.4	Swagger2.0 Definition .....	417

855	B.39.5	Property Definition .....	419
856	B.39.6	CRUDN behaviour.....	420
857	B.40	Heating Zone Collection .....	420
858	B.40.1	Introduction .....	420
859	B.40.2	Example URI .....	420
860	B.40.3	Resource Type .....	420
861	B.40.4	Swagger2.0 Definition .....	420
862	B.40.5	Property Definition .....	428
863	B.40.6	CRUDN behaviour.....	430
864	B.41	Height .....	430
865	B.41.1	Introduction .....	430
866	B.41.2	Example URI .....	430
867	B.41.3	Resource Type .....	430
868	B.41.4	Swagger2.0 Definition .....	430
869	B.41.5	Property Definition .....	433
870	B.41.6	CRUDN behaviour.....	433
871	B.42	Humidity .....	434
872	B.42.1	Introduction .....	434
873	B.42.2	Example URI .....	434
874	B.42.3	Resource Type .....	434
875	B.42.4	Swagger2.0 Definition .....	434
876	B.42.5	Property Definition .....	438
877	B.42.6	CRUDN behaviour.....	439
878	B.43	Ice Maker .....	440
879	B.43.1	Introduction .....	440
880	B.43.2	Example URI .....	440
881	B.43.3	Resource Type .....	440
882	B.43.4	Swagger2.0 Definition .....	440
883	B.43.5	Property Definition .....	445
884	B.43.6	CRUDN behaviour.....	446
885	B.44	Illuminance Sensor .....	446
886	B.44.1	Introduction .....	446
887	B.44.2	Example URI .....	446
888	B.44.3	Resource Type .....	446
889	B.44.4	Swagger2.0 Definition .....	446
890	B.44.5	Property Definition .....	448
891	B.44.6	CRUDN behaviour.....	449
892	B.45	Lock Code .....	449
893	B.45.1	Introduction .....	449
894	B.45.2	Example URI .....	449
895	B.45.3	Resource Type .....	449
896	B.45.4	Swagger2.0 Definition .....	449
897	B.45.5	Property Definition .....	452
898	B.45.6	CRUDN behaviour.....	453

899	B.46	Lock .....	453
900	B.46.1	Introduction .....	453
901	B.46.2	Example URI .....	453
902	B.46.3	Resource Type .....	453
903	B.46.4	Swagger2.0 Definition .....	453
904	B.46.5	Property Definition .....	456
905	B.46.6	CRUDN behaviour .....	457
906	B.47	Magnetic Field Direction Sensor .....	457
907	B.47.1	Introduction .....	457
908	B.47.2	Example URI .....	457
909	B.47.3	Resource Type .....	457
910	B.47.4	Swagger2.0 Definition .....	457
911	B.47.5	Property Definition .....	459
912	B.47.6	CRUDN behaviour .....	460
913	B.48	Media .....	460
914	B.48.1	Introduction .....	460
915	B.48.2	Example URI .....	460
916	B.48.3	Resource Type .....	460
917	B.48.4	Swagger2.0 Definition .....	460
918	B.48.5	Property Definition .....	463
919	B.48.6	CRUDN behaviour .....	464
920	B.49	Media Source .....	464
921	B.49.1	Introduction .....	464
922	B.49.2	Example URI .....	464
923	B.49.3	Resource Type .....	464
924	B.49.4	Swagger2.0 Definition .....	464
925	B.49.5	Property Definition .....	468
926	B.49.6	CRUDN behaviour .....	469
927	B.50	Media Source List .....	469
928	B.50.1	Introduction .....	469
929	B.50.2	Example URI .....	469
930	B.50.3	Resource Type .....	469
931	B.50.4	Swagger2.0 Definition .....	469
932	B.50.5	Property Definition .....	473
933	B.50.6	CRUDN behaviour .....	473
934	B.51	Media Source Input .....	473
935	B.51.1	Introduction .....	473
936	B.51.2	Example URI .....	474
937	B.51.3	Resource Type .....	474
938	B.51.4	Swagger2.0 Definition .....	474
939	B.51.5	Property Definition .....	477
940	B.51.6	CRUDN behaviour .....	478
941	B.52	Media Source Output .....	478
942	B.52.1	Introduction .....	478

943	B.52.2	Example URI .....	478
944	B.52.3	Resource Type .....	478
945	B.52.4	Swagger2.0 Definition .....	478
946	B.52.5	Property Definition .....	482
947	B.52.6	CRUDN behaviour .....	482
948	B.53	Mode .....	483
949	B.53.1	Introduction .....	483
950	B.53.2	Example URI .....	483
951	B.53.3	Resource Type .....	483
952	B.53.4	Swagger2.0 Definition .....	483
953	B.53.5	Property Definition .....	488
954	B.53.6	CRUDN behaviour .....	489
955	B.54	Motion Sensor .....	489
956	B.54.1	Introduction .....	489
957	B.54.2	Example URI .....	489
958	B.54.3	Resource Type .....	489
959	B.54.4	Swagger2.0 Definition .....	489
960	B.54.5	Property Definition .....	491
961	B.54.6	CRUDN behaviour .....	492
962	B.55	Movement .....	492
963	B.55.1	Introduction .....	492
964	B.55.2	Example URI .....	492
965	B.55.3	Resource Type .....	492
966	B.55.4	Swagger2.0 Definition .....	492
967	B.55.5	Property Definition .....	495
968	B.55.6	CRUDN behaviour .....	496
969	B.56	Night Mode .....	496
970	B.56.1	Introduction .....	496
971	B.56.2	Example URI .....	496
972	B.56.3	Resource Type .....	496
973	B.56.4	Swagger2.0 Definition .....	496
974	B.56.5	Property Definition .....	499
975	B.56.6	CRUDN behaviour .....	500
976	B.57	Open Level .....	500
977	B.57.1	Introduction .....	500
978	B.57.2	Example URI .....	500
979	B.57.3	Resource Type .....	500
980	B.57.4	Swagger2.0 Definition .....	500
981	B.57.5	Property Definition .....	504
982	B.57.6	CRUDN behaviour .....	504
983	B.58	Operational State .....	504
984	B.58.1	Introduction .....	504
985	B.58.2	Example URI .....	504
986	B.58.3	Resource Type .....	505



987	B.58.4	Swagger2.0 Definition .....	505
988	B.58.5	Property Definition .....	510
989	B.58.6	CRUDN behaviour .....	512
990	B.59	Presence Sensor .....	512
991	B.59.1	Introduction .....	512
992	B.59.2	Example URI .....	512
993	B.59.3	Resource Type .....	512
994	B.59.4	Swagger2.0 Definition .....	512
995	B.59.5	Property Definition .....	514
996	B.59.6	CRUDN behaviour .....	515
997	B.60	Pan Tilt Zoom Movement .....	515
998	B.60.1	Introduction .....	515
999	B.60.2	Example URI .....	515
1000	B.60.3	Resource Type .....	515
1001	B.60.4	Swagger2.0 Definition .....	515
1002	B.60.5	Property Definition .....	519
1003	B.60.6	CRUDN behaviour .....	520
1004	B.61	Ramp Time .....	520
1005	B.61.1	Introduction .....	520
1006	B.61.2	Example URI .....	520
1007	B.61.3	Resource Type .....	520
1008	B.61.4	Swagger2.0 Definition .....	520
1009	B.61.5	Property Definition .....	523
1010	B.61.6	CRUDN behaviour .....	524
1011	B.62	Refrigeration .....	524
1012	B.62.1	Introduction .....	524
1013	B.62.2	Example URI .....	524
1014	B.62.3	Resource Type .....	524
1015	B.62.4	Swagger2.0 Definition .....	524
1016	B.62.5	Property Definition .....	530
1017	B.62.6	CRUDN behaviour .....	531
1018	B.63	Selectable Levels .....	531
1019	B.63.1	Introduction .....	531
1020	B.63.2	Example URI .....	531
1021	B.63.3	Resource Type .....	531
1022	B.63.4	Swagger2.0 Definition .....	531
1023	B.63.5	Property Definition .....	537
1024	B.63.6	CRUDN behaviour .....	538
1025	B.64	Signal Strength .....	538
1026	B.64.1	Introduction .....	538
1027	B.64.2	Example URI .....	538
1028	B.64.3	Resource Type .....	538
1029	B.64.4	Swagger2.0 Definition .....	538
1030	B.64.5	Property Definition .....	541

1031	B.64.6	CRUDN behaviour .....	541
1032	B.65	Sleep Sensor .....	541
1033	B.65.1	Introduction .....	541
1034	B.65.2	Example URI .....	541
1035	B.65.3	Resource Type .....	541
1036	B.65.4	Swagger2.0 Definition .....	542
1037	B.65.5	Property Definition .....	544
1038	B.65.6	CRUDN behaviour .....	544
1039	B.66	Smoke Sensor .....	544
1040	B.66.1	Introduction .....	544
1041	B.66.2	Example URI .....	544
1042	B.66.3	Resource Type .....	544
1043	B.66.4	Swagger2.0 Definition .....	545
1044	B.66.5	Property Definition .....	547
1045	B.66.6	CRUDN behaviour .....	547
1046	B.67	Speech Synthesis-TTS .....	547
1047	B.67.1	Introduction .....	547
1048	B.67.2	Example URI .....	548
1049	B.67.3	Resource Type .....	548
1050	B.67.4	Swagger2.0 Definition .....	548
1051	B.67.5	Property Definition .....	552
1052	B.67.6	CRUDN behaviour .....	552
1053	B.68	Temperature .....	552
1054	B.68.1	Introduction .....	552
1055	B.68.2	Example URI .....	553
1056	B.68.3	Resource Type .....	553
1057	B.68.4	Swagger2.0 Definition .....	553
1058	B.68.5	Property Definition .....	556
1059	B.68.6	CRUDN behaviour .....	557
1060	B.69	Three Axis Sensor .....	557
1061	B.69.1	Introduction .....	557
1062	B.69.2	Example URI .....	557
1063	B.69.3	Resource Type .....	557
1064	B.69.4	Swagger2.0 Definition .....	557
1065	B.69.5	Property Definition .....	560
1066	B.69.6	CRUDN behaviour .....	560
1067	B.70	Time Period .....	561
1068	B.70.1	Introduction .....	561
1069	B.70.2	Example URI .....	561
1070	B.70.3	Resource Type .....	561
1071	B.70.4	Swagger2.0 Definition .....	561
1072	B.70.5	Property Definition .....	564
1073	B.70.6	CRUDN behaviour .....	565
1074	B.71	Touch Sensor .....	565

1075	B.71.1	Introduction .....	565
1076	B.71.2	Example URI .....	565
1077	B.71.3	Resource Type .....	565
1078	B.71.4	Swagger2.0 Definition .....	565
1079	B.71.5	Property Definition .....	567
1080	B.71.6	CRUDN behaviour .....	568
1081	B.72	UV Radiation .....	568
1082	B.72.1	Introduction .....	568
1083	B.72.2	Example URI .....	568
1084	B.72.3	Resource Type .....	568
1085	B.72.4	Swagger2.0 Definition .....	568
1086	B.72.5	Property Definition .....	571
1087	B.72.6	CRUDN behaviour .....	571
1088	B.73	Value Conditional .....	571
1089	B.73.1	Introduction .....	571
1090	B.73.2	Example URI .....	572
1091	B.73.3	Resource Type .....	572
1092	B.73.4	Swagger2.0 Definition .....	572
1093	B.73.5	Property Definition .....	574
1094	B.73.6	CRUDN behaviour .....	574
1095	B.74	Water Sensor .....	574
1096	B.74.1	Introduction .....	574
1097	B.74.2	Example URI .....	574
1098	B.74.3	Resource Type .....	574
1099	B.74.4	Swagger2.0 Definition .....	574
1100	B.74.5	Property Definition .....	576
1101	B.74.6	CRUDN behaviour .....	577
1102	B.75	Weight.....	577
1103	B.75.1	Introduction .....	577
1104	B.75.2	Example URI .....	577
1105	B.75.3	Resource Type .....	577
1106	B.75.4	Swagger2.0 Definition .....	577
1107	B.75.5	Property Definition .....	580
1108	B.75.6	CRUDN behaviour .....	580
1109			
1110			

1111	Figures	
1112		
1113	Figure 1: Overall conditional notification logic.....	40
1114	Figure 2: Conditional Notification Example Flow .....	41
1115		
1116		
1117		

1118  
1119  
1120  
1121  
1122  
1123  
1124  
1125  
1126  
1127  
1128  
1129

## Tables

Table 5-1 Conversion between OCF CRUDN and RAML definitions.....	32
Table 5-2 Common Properties for OCF Resources .....	33
Table 5-3 Property definitions of a Resource Type in the JSON schema.....	33
Table 5-4 Return codes behaviour in RAML.....	34
Table 5-5 RAML example of an Resource representing an Actuator.....	35
Table 5-6 RAML example of an Resource specifying a Sensor .....	37
Table 5-7 Conditional Notification Properties .....	39
Table 5-8 RAML example of Composite Resource .....	42
Table 6-1 Alphabetical list of Resource Types .....	43

## 1 Scope

The OCF Resource Type Specification specifies the Resources that have been defined by OCF that may be exposed by an OCF Device.

Application profile device specifications (for example those created for Smart Home or Healthcare) specify device types appropriate to the profile; such specifications use Resource Type definitions from this document.

This specification is built on top of the OCF Core Specification. The OCF Core Specification specifies the OCF Framework that enables the implementation of profiles for IoT usages and ecosystems. The OCF Core Framework is scalable to support simple devices (constrained device) and more capable devices (smart device).

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

OCF Core Specification, *Open Connectivity Foundation Core Specification*, Version 1.0.0.

JSON SCHEMA, *JSON Schema: Core Definitions and Terminology*, Version 4.0,  
<http://json-schema.org/latest/json-schema-core.html>.

RAML, *Restful API modelling language*, Version 0.8.

<https://github.com/raml-org/raml-spec/blob/master/versions/raml-08/raml-08.md>

ISO 8601:2004, *Data elements and interchange formats – information interchange – Representation of dates and times*.

CIE CIE159:2004, *A colour appearance model for colour management systems: CIECAM02*, January 19, 2004.

[http://www.cie.co.at/index.php/Publications/index.php?i\\_ca\\_id=435](http://www.cie.co.at/index.php/Publications/index.php?i_ca_id=435)

Swagger2.0, *Swagger RESTful API Documentation Specification*, Version 2.0

<http://swagger.io/specification/>

OCF Resource Type Definitions, *API Definition Language for OCF Resource Type Definitions*, Release OCF-v1.0.0

<https://github.com/OpenInterConnect/IoTDataModels>

## 3 Terms, definitions, symbols and abbreviations

### 3.1 Terms and definitions

#### 3.1.1

##### Actuator

Resource with support of the UPDATE operation.

#### 3.1.2

##### Composite Resource Type

A Resource Type defined as an OCF Collection of other Resource Types.

1167 **3.1.3**  
1168 **CRUDN**  
1169 Create Retrieve Update Delete Notify  
1170 This is an acronym indicating which operations are possible on the Resource.

1171 **3.1.4**  
1172 **CSV**  
1173 Comma Separated Value List  
1174 Comma Separated Value List is a construction to have more fields in 1 string separated by commas.  
1175 If a value contains a comma then the comma can be escaped by adding “\” in front of the comma.

1176 **3.1.5**  
1177 **OCF**  
1178 Open Connectivity Foundation  
1179 OCF is the standards organization which created and owns this specification.

1180 **3.1.6**  
1181 **RAML**  
1182 RESTful API modelling language  
1183 RAML is a simple and succinct way of describing RESTful APIs. See RAML for further details.

1184 **3.1.7**  
1185 **REST**  
1186 Representational State Transfer  
1187 REST is an architecture style for designing networked applications and relies on a stateless, client-server, cacheable communications protocol.

1189 **3.1.8**  
1190 **Sensor**  
1191 Resource without support of the UPDATE operation.

1192 **3.1.9**  
1193 **TBD**  
1194 To Be Determined

1195 **3.2 Symbols and abbreviations**  
1196 None defined.

1197 **4 Document conventions and organization**

1198 This document lists all the Resource Types currently specified by OCF. The Resources are used  
1199 by application profile device definitions. The Resource Types mentioned in this document can be  
1200 used by any OCF conforming device in any OCF Collection or device representation.

1201 For the purposes of this document, the terms and definitions given in OCF Core Specification apply.

1202 **4.1 Conventions**

1203 In this specification a number of terms, conditions, mechanisms, sequences, parameters, events,  
1204 states, or similar terms are printed with the first letter of each word in uppercase and the rest  
1205 lowercase (e.g., Resource Type). Any lowercase uses of these words have the normal technical  
1206 English meaning.

1207 **4.2 Notation**

1208 In this document, features are described as required, recommended, allowed or DEPRECATED as  
1209 follows:

1210 Required (or shall or mandatory).

1211 These basic features shall be implemented to comply with OCF Resource Type Specification.  
1212 The phrases “shall not”, and “PROHIBITED” indicate behaviour that is prohibited, i.e. that if  
1213 performed means the implementation is not in compliance.

1214 Recommended (or should).

1215 These features add functionality supported by the OCF Resource Type Specification and  
1216 should be implemented. Recommended features take advantage of the capabilities of the OCF  
1217 Resource Type Specification, usually without imposing major increase of complexity. Notice  
1218 that for compliance testing, if a recommended feature is implemented, it shall meet the  
1219 specified requirements to be in compliance with these guidelines. Some recommended features  
1220 could become requirements in the future. The phrase “should not” indicates behaviour that is  
1221 permitted but not recommended.

1222 Allowed (or allowed).

1223 These features are neither required nor recommended by OCF Resource Type Specification,  
1224 but if the feature is implemented, it shall meet the specified requirements to be in compliance  
1225 with these guidelines.

1226 DEPRECATED

1227 Although these features are still described in this specification, they should not be implemented  
1228 except for backward compatibility. The occurrence of a deprecated feature during operation of  
1229 an implementation compliant with the current specification has no effect on the  
1230 implementation’s operation and does not produce any error conditions. Backward compatibility  
1231 may require that a feature is implemented and functions as specified but it shall never be used  
1232 by implementations compliant with this specification.

1233 Conditionally allowed (CA)

1234 The definition or behaviour depends on a condition. If the specified condition is met, then the  
1235 definition or behaviour is allowed, otherwise it is not allowed.

1236 Conditionally required (CR)

1237 The definition or behaviour depends on a condition. If the specified condition is met, then the  
1238 definition or behaviour is required. Otherwise the definition or behaviour is allowed as default  
1239 unless specifically defined as not allowed.

1240 Strings that are to be taken literally are enclosed in “double quotes”.

1241 Words that are emphasized are printed in *italic*.

## 1242 4.3 Data types

1243 This specification adopts the types defined in the OCF Core Specification with the exceptions  
1244 defined in this Section

1245 All Properties in this specification that are defined as JSON number type shall be transmitted  
1246 encoded as floating point values and not integer values. Reception of Properties defined as JSON  
1247 number type shall be as defined in the OCF Core Specification. See OCF Core Specification  
1248 Section 12.3 for specifics.

## 1249 5 Baseline Model Constructs

### 1250 5.1 URI

1251 The URIs mentioned in this document are non-normative, they may be vendor defined.

1252 An Instance of a Resource is indicated by the URI. When more than one instance of the same  
1253 Resource Type is used in an OCF Device, different URIs for the different Resource instances shall  
1254 be used.



1255 An implementation shall follow the requirements defined in the OCF Core Specification with respect  
1256 to population of the URI. Please refer to the OCF Core Specification Sections 6.2 and 6.3 for  
1257 specific details.

## 1258 **5.2 Interfaces**

1259 The OCF Core Specification specifies that all Resource Types have associated with them at least  
1260 one Interface; this Interface is advertised during Resource discovery. In addition the OCF Core  
1261 Specification defines a number of Interfaces that can be applied to an instance of a Resource Type.

1262 The Default Interface associated with all Resource Types defined in this specification shall be the  
1263 supported interface listed first within the applicable enumeration in the definition of the Resource  
1264 Type (see Section 6 Resource Type definitions); with an exception being when a Resource Type  
1265 definition has either Sensor or Actuator interfaces as the Default Interface, in this instance an  
1266 implementation shall select one of them as the default. Thus a Server hosting such a Resource  
1267 Type shall enable either oic.if.s (if a Sensor) or oic.if.a (if an Actuator) as the Interface that is  
1268 exposed via “/oic/res” in addition to the mandated baseline interface (“oic.if.baseline”). A Server  
1269 may also support other Interfaces in addition to the one specified as the default.

1270 Note that the functionality associated with, or visibility of, an instance of any Resource exposed  
1271 by a Device may be restricted depending upon local (per country or legislative region) regulatory  
1272 requirements or other restrictions (e.g. with respect to Binary Switch in some jurisdictions the  
1273 ability to remotely power on a connected device is restricted; a lock status could be read-only  
1274 depending on the context). In such cases the Device shall not expose the actuator interface for  
1275 the Resource (“oic.if.a”), the Device shall expose the Resource in “/oic/res” with the Sensor  
1276 Interface (“oic.if.s”) as the Default Interface in addition to any mandated interfaces.

## 1277 **5.3 RAML definition**

1278 The RAML definitions used in this document are normative. By extension all defined JSON  
1279 payloads shall comply with the indicated JSON schema. Note that the defined schemas have  
1280 extensions that include all OCF Core Specification defined (and mandated) Properties.

1281 The RAML definitions are used to describe the payloads of the CRUDN operations on the specified  
1282 Resource Type. The CRUDN operations are defined in the OCF Core Specification. The OCF Core  
1283 Specification also specifies additional Properties in the payloads of the CRUDN operations. The  
1284 RAML definitions in this document are not of themselves sufficient to create an implementation,  
1285 additional Properties defined in the Core specification need to be added to create a compliant  
1286 implementation. This specification makes use of a subset of the responses supported by RAML  
1287 specifics on the use of these responses are defined in Table 5-4 Return codes behaviour in RAML.  
1288 Note that the actual values of success and error conditions are defined in the OCF Core  
1289 Specification.

1290 The RAML definitions map the OCF CRUDN behaviour to the RAML as defined in Table 5-1.

1291 **Table 5-1 Conversion between OCF CRUDN and RAML definitions<sup>1</sup>**

Resource	Create	Retrieve	Update	Delete	Notify
/example	put or post	get	put or post	delete	

1292 Notify is not part of an RAML definition but is defined in the Core specification. The semantics of  
1293 a Notify are the same as the CRUDN Read value. All Resource Types defined in this specification  
1294 support notification via the use of observe as defined in OCF Core Specification Section 11.4.2.

---

<sup>1</sup> Please refer to OCF Core Specification Table 26 for detailed semantics around the appropriate use of CoAP request methods

## 5.4 Property definition

### 5.4.1 Common Properties

The OCF Core Specification specifies a number of Properties that may be defined for OCF Resources. The Common Properties “if” and “rt” shall be specified for all Resource Types defined in this specification; they are exposed within the OCF Core Specification defined /oic/res/ Resource Type through which the OCF Server and its available Resources are discovered. The Common Properties “p” and “n” may be specified for all Resource Types defined in this specification.

If an OCF Client requires that these Properties be included in a Resource representation that is provided in response to a RETRIEVE operation then the client shall select the OCF Core Specification defined baseline interface (oic.if.baseline) by specifying this in a query parameter.

**Table 5-2 Common Properties for OCF Resources**

Property Name	Property Title	Property Value	Value Type	Access Modes	Description
<b>if</b>	Interface	See OCF Core Specification Section 7.6.2	Array of string	Readonly	Core defined; Interface(s) supported by the Resource
<b>rt</b>	Resource type	See OCF Core Specification Section 7.4	Array of string	Readonly	Core defined; Resource type. The Resource Types are defined in this document. See Section 6
<b>n</b>	Name	See OCF Core Specification Section 7.3.2.5	string	Readonly	Core defined; human understandable name for the Resource.
<b>id</b>	Resource Identity	See OCF Core Specification Section 7.3.2.6	string	Readonly	Core defined; Unique identifier of the Resource (over all Resources in the OCF device)

### 5.4.2 Resource Properties

The Properties against which the CRUDN operations are specified are defined with JSON schemas (see JSON SCHEMA).

A basic Resource Type is formulated around one single value denoting a physical property.

Such a Resource Type is specified with the Properties as defined Table 5-3. Mandatory in the table means that the Property shall be defined as part of the overall Resource Type schema; actual inclusion of the Property as part of a returned or generated payload is dependent upon the schema that applies to the operation being invoked.

**Table 5-3 Property definitions of a Resource Type in the JSON schema**

Property Name	Friendly Alias Name	Property Value	Value Type	Value Rules	Access Modes	Mandatory	Description
<b>&lt;value&gt;,name may change dependent on the Resource</b>	<value>, name may change dependent on the Resource	Dependent on the Resource	Dependent on the Resource	Dependent on the Resource	Dependent on the Resource	yes	The current value of the Resource
<b>range</b>	Range	[Min,Max]	array	Linear range	Read-only	no	Range of input values, specified as a two element array.
<b>step</b>	Step	Dependent on the Resource	Integer or Number	Dependent on the Resource	Read-only	no	Step value across the defined range
<b>precision</b>	Precision	Dependent on the Resource	Number	Dependent on the Resource	Read-only	no	Accuracy granularity of the exposed value

1317

1318 For Resources, which by their nature have more than one physical parameter, the value Property  
1319 can be replaced with multiple Properties specifying the different physical parameters. The type of  
1320 the value shall be indicated in the RAML definition of the Resource Type and should be suitable  
1321 for the conveyed value. All Property Names and Property Values defined in this specification are  
1322 case sensitive.

#### 1323 5.4.3 Basic Resource Schema

1324 All Resource Types defined herein are represented as previously noted by JSON schemas. The  
1325 RAML definitions of the Resource Types embed the Resource Type specific schema elements.

#### 1326 5.4.4 CRUDN Operation Response Codes

1327 A Resource can be created or updated depending on the Resource Type definition and the allowed  
1328 CRUDN operations. The operation may have different response codes with different meanings.  
1329 This is explained in Table 5-4.

1330 **Table 5-4 Return codes behaviour in RAML**

Response Code	Meaning
200	<p>Payload of the response will confirm the change.</p> <p>The RAML definition will contain a schema to define the payload.</p>

201	<p>Payload is the URL of the Resource that was created by the server as a result of a CREATE operation.</p> <p>The RAML definition will contain schema to define the payload.</p>
204	<p>Ok, everything went well, no payload provided.</p> <p>The RAML definition does not contain a schema.</p> <p>The RAML definition may even omit this value, since it is regarded as default behaviour of an OCF Server.</p>
403	<p>Case 1:</p> <p>In the case of a RETRIEVE on a Resource with the use of a query parameter selecting specific Property values; if the server does not support the values provided then this response should be returned.</p> <p>The response payload should include the allowed values for the query parameter.</p> <p>Case 2:</p> <p>The server could not CREATE or UPDATE the Resource due to a problem with the provided payload.</p> <p>For an UPDATE, unless otherwise stated in the Resource Type definition, the response payload should include the same schema defined for a 200; indicating the current Resource Property value(s).</p>

## 5.5 Example Resource Definitions

**Table 5-5 RAML example of an Resource representing an Actuator**

```

#%RAML 0.8
title: OCFExampleActuator
version: v1.0

/ActuatorExample:
  description: |
    ResourceActuatorExample description.
    If the ActuatorExample is implemented as the example in the RAML the next values apply:
    The name of the Resource is "ResourceExample Name"
    The Resource Type is "oic.r.actuatorexample"
    The Interface (if) is denoting an Actuator by having the value oic.if.a.
    The unique identification is "actuator_example_id"
    The value of the ActuatorExample is modeled as integer
    The range of the value of ActuatorExample is between 0 and 100
  get:
    description: |
      retrieves the example Resource.
    responses:
      200:
        body:
          application/json:

```

```

schema: |
{
  "id": "http://openinterconnect.org/schemas/oic.r.actuatorexample.json",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "title": "AcutatorExample",
  "definitions": {
    "oic.r.actuatorexample": {
      "type": "object",
      "properties": {
        "value": { "type": "string" },
        "range": {
          "type": "array",
          "items": {
            "type": "integer"
          }
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    { "$ref": "oic.core.json#/definitions/oic.core" },
    { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
    { "$ref": "#/definitions/oic.r.actuatorexample" }
  ],
  "required": ["value"]
}

example: |
{
  "n": "ActuatorExample Name",
  "id": "actuator_example_id",
  "rt": ["oic.r.actuatorexample"],
  "value": "0",
  "range": ["0,100"]
}

post:
description: |
  sets the Actuator value
  example only updates the value of the Resource
  it does not change the Resource name, although it is allowed to do so.

body:
  application/json:
    schema: |
      {
        "id": "http://openinterconnect.org/schemas/oic.r.actuatorexample.json",
        "$schema": "http://json-schema.org/draft-04/schema#",
        "title": "AcutatorExample",
        "definitions": {
          "oic.r.actuatorexample": {
            "type": "object",
            "properties": {
              "value": { "type": "string" },
              "range": {
                "type": "array",
                "items": {
                  "type": "integer"
                }
              }
            }
          }
        },
        "type": "object",
        "allOf": [
          { "$ref": "oic.core.json#/definitions/oic.core" },
          { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
          { "$ref": "#/definitions/oic.r.actuatorexample" }
        ]
      }

```

```

    ],
    "required": ["value"]
  }
  example: |
    {
      "id": "actuator_example_id",
      "value": 5
    }
responses:
  200:
    body:
      application/json:
        schema: |
          {
            "id": "http://openinterconnect.org/schemas/oic.r.actuatorexample.json",
            "$schema": "http://json-schema.org/draft-04/schema#",
            "title": "AcutatorExample",
            "definitions": {
              "oic.r.actuatorexample": {
                "type": "object",
                "properties": {
                  "value": { "type": "string" },
                  "range": {
                    "type": "array",
                    "items": {
                      "type": "integer"
                    }
                  }
                }
              }
            },
            "type": "object",
            "allOf": [
              { "$ref": "oic.core.json#/definitions/oic.core" },
              { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
              { "$ref": "#/definitions/oic.r.actuatorexample" }
            ],
            "required": ["value"]
          }
        example: |
          {
            "id": "actuator_example_id",
            "value": 5
          }

204:

```

1333

1334

**Table 5-6 RAML example of an Resource specifying a Sensor**

```

#%RAML 0.8
title: OCFExampleSensor
version: v1.0

/SensorExample:
  description: |
    SensorExample description.
    If the SensorExample is implemented as the example in the RAML the next values apply:
    The name of the Resource is "ResourceExample_Name"
    The Resource Type is "oic.r.sensorexample"

```

The Interface (if) is denoting a Sensor by having the value oic.if.s.  
The unique identification is "sensor\_example\_id"  
The value of the ResourceSensorExample is modeled as integer

```
get:
  description: |
    retrieves the example Resource.
  responses:
    200:
      body:
        application/json:
          schema: |
            {
              "id": "http://openinterconnect.org/schemas/oic.r.sensorexample.json",
              "$schema": "http://json-schema.org/draft-04/schema#",
              "title": "SensorExample",
              "definitions": {
                "oic.r.sensorexample": {
                  "type": "object",
                  "properties": {
                    "value": { "type": "string" },
                    "range": {
                      "type": "array",
                      "items": {
                        "type": "integer"
                      }
                    }
                  }
                }
              },
              "type": "object",
              "allOf": [
                { "$ref": "oic.core.json#/definitions/oic.core" },
                { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
                { "$ref": "#/definitions/oic.r.sensorexample" },
              ],
              "required": ["value"]
            }
          example: |
            {
              "n": "SensorExample_Name",
              "rt": ["oic.r.sensorexample"],
              "id": "sensor_example_id",
              "value": "3"
            }
```

## 5.6 Observable Resource Types

### 5.6.1 Overview

The OCF Core Specification defines a mechanism by which Resources can advertise themselves as “Observable” to an OCF Client. All Resource Types defined in this specification may be observed. Whether or not a Resource Type is made observable via use of the Policy Link Parameter is entirely implementation dependent.

### 5.6.2 Conditional Notification

#### 5.6.2.1 Introduction

All observable Resources may apply conditions to the generation of notifications that result from the observe action, these conditions can be time based or value based or time and value based. This is achieved by composing the Conditional Notification (oic.r.value.conditional) Resource Type

with an instance of an observable Resource; that is the Resource that is exposed by the Server has an "rt" of "[{"oic.r.<resource>","oic.r.value.conditional"}]".

### 5.6.2.2 Conditional Notification Property Summary

Table 5-7 Conditional Notification Properties summarizes the Properties provided by the Conditional Notification Resource Type. At least one Property from the table shall be present in an instance of the Resource Type.

**Table 5-7 Conditional Notification Properties**

Name	Type	R/W	Required	Description
threshold	number	RW	No	Amount by which the observed value changes before a notification is generated
minnotifyperiod	integer	RW	No	Minimum elapsed time in ms before a notification may be sent
maxnotifyperiod	integer	RW	No	Maximum elapsed time in ms after which a notification is sent

All Properties if exposed shall be set with initial values. All Properties may be exposed with a value of "0" (zero); this indicates that the functionality associated with the Property is not active. Any Client may update the exposed values subject to any ACL restrictions; such changes are global and apply to all notifications that are sent to all observers. A notifier may reject an update to the Property values; in such cases a diagnostic payload should be included in the rejection response indicating the valid ranges for the Properties.

### 5.6.2.3 Property Definition: threshold

Minimum value change between two notifications. A notification shall be sent (within the constraints of "minnotifyperiod") when the change since the last notification is greater than or equal to this value. The measurement is done against the value in the last notification that was sent; thus all notifications (within any "maxnotifyperiod" constraints that may be present) will carry values that differ by at least "threshold". A "threshold" value of "0" means that no "threshold" is applied.

### 5.6.2.4 Property Definition: minnotifyperiod

Minimum time (in ms) that shall occur between notifications. If a value change condition is met ("threshold" equalled or exceeded or any change in value if threshold is not present) before expiration the notification shall not be sent till the period expires. If the Property is present and set to "0" then no minimum notify period timer is run; if the Property is present and with a value greater than "0" then a minimum notify period timer shall be run equal to the value. The Property value itself is initially populated by the notifier. If the Property is not present the minimum notify period is up to the notifier. The timer shall be reset each time a notification is sent.

### 5.6.2.5 Property Definition: maxnotifyperiod

Maximum time (in ms) that the notifier shall not exceed between notifications. When the timer expires a notification shall be sent. If present and set to "0" then no maximum notify period timer is run; if present and with a value greater than 0 then a maximum notify period timer shall be run equal to the value. The Property value itself shall be initially populated by the notifier. When both "minnotifyperiod" and "maxnotifyperiod" are present and both are non-zero the value of "maxnotifyperiod" shall be larger than the "minnotifyperiod". If not present the value shall be set by the notifier. The timer shall be reset each time a notification is sent.



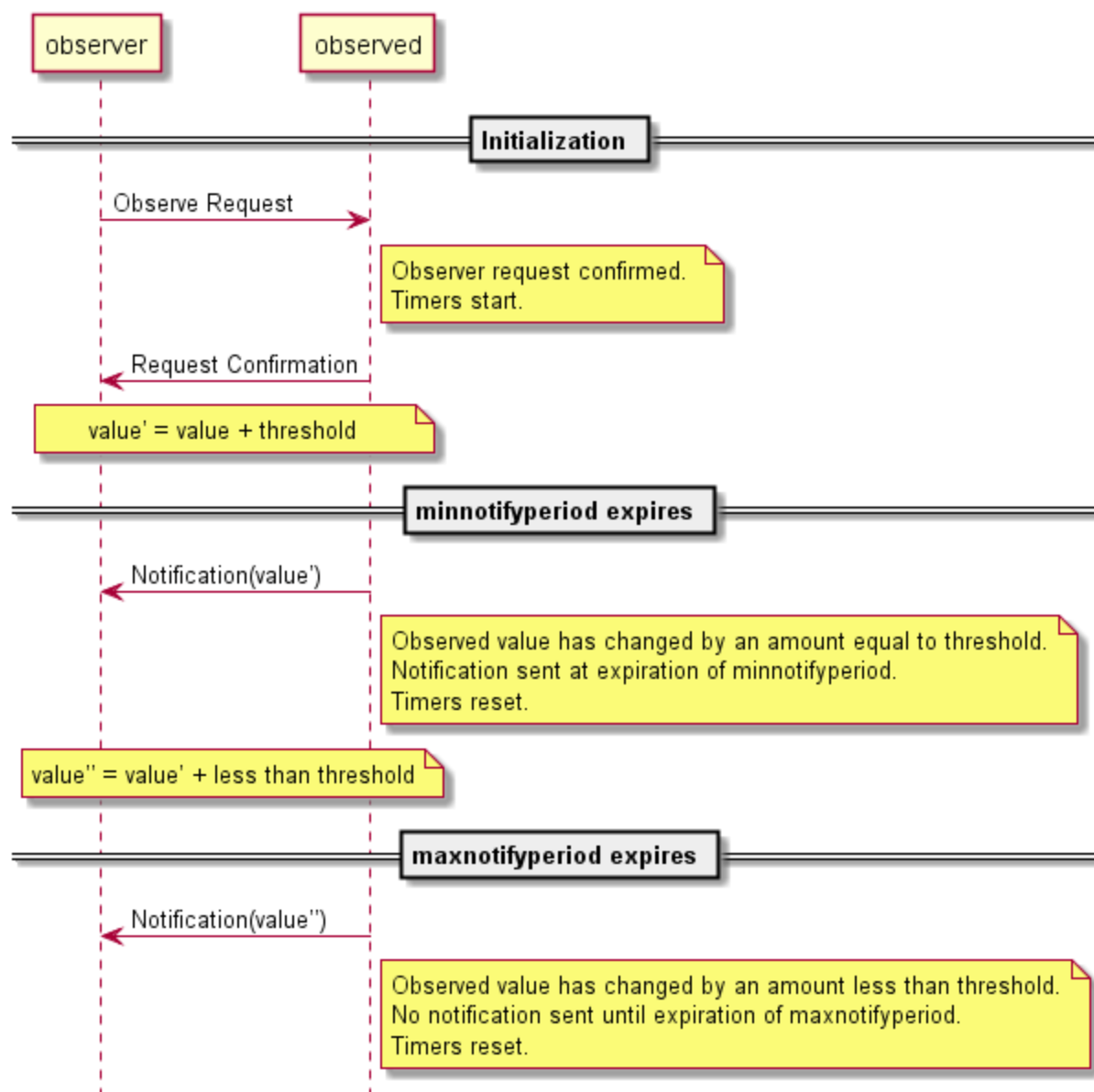
#### 5.6.2.6 Governing State Machine

The “minnotifyperiod” and “maxnotifyperiod” timers are restarted each time a notification is sent (response to the Observe). A notification is sent when value change condition (threshold) and “minnotifyperiod” are both met if both are present. If the observed Property value subsequently drops beneath threshold before the expiration of “minnotifyperiod” the notifier may take no action or a notification may be sent on expiration of “minnotifyperiod” containing the current observed Property value (at the time of the notification). If there are no timer constraints; then notifications are sent whenever the observed Property value has changed by an amount greater than or equal to “threshold”.

Overall logic is defined in Figure 1: Overall conditional notification logic. Figure 2: Conditional Notification Example Flow provides an illustrative sequence.

```
graph TD
    A[If minnotifyperiod expired:] --> B[If observed value changed:]
    B --> C[If change amount >= threshold:]
    C --> D[Send notification with current value]
    D --> E[Reset minnotifyperiod , maxnotifyperiod]
    E --> F[If maxnotifyperiod expired:]
    F --> G[Get current value]
    G --> H[Send notification with current value]
    H --> I[Reset minnotifyperiod , maxnotifyperiod]
```

**Figure 1: Overall conditional notification logic**



**Figure 2: Conditional Notification Example Flow**

## 5.7 Composite Resource Types

Composite Resource Types are Resources that comprises of one or more single or other composite Resource Types, an example of which is shown in Table 5-8 RAML example of Composite Resource Type. The Composite Resource Type can be viewed upon as a new single Resource Type. The Composite Resource Type mechanism is a powerful concept since it uses existing Resource Types in a new combination to express more contexts to a Resource without specifying new single unit Resource Types.

Composite Resource Types are defined by linking the referenced existing Resource values in to a Collection.

1409 The linking is done by using an array of Links; refer to the OCF Core Specification section 7.7.2  
 1410 for more details. Note that the example listed below contains a partial schema of this definition as  
 1411 it is for descriptive purpose only. The Property name of the array is “links”. The relationship type  
 1412 shall be “contains”, denoting that the composite contains other Resource Types that make up the  
 1413 Composite Resource Type.

1414 The access to the listed Resources can be achieved in a single operation by using the OCF Core  
 1415 Specification defined oic.if.ll interface.

1416 **Table 5-8 RAML example of Composite Resource**

```

#%RAML 0.8

title: OCFExampleCompositeResource
version: v1.0

/CompositeExample:
  description: |
    CompositeExample description.
    If the CompositeExample is implemented as per the example RAML the following values apply:
    The name of the Resource is "CompositeExample Name"
    The Resource Type is "oic.r.compositeexample"
    The Interface (if) can denote Sensor or Actuator
    The value of the ActuatorExample is modeled as 2 references to other implemented Resources
    In the example oic.r.SensorExample and oic.r.ActuatorExample are used.
  get:
    description: |
      retrieves the composite example Resource.
    responses:
      200:
        body:
          application/json:
            schema: |
              {
                "id": "http://openinterconnect.org/schemas/oic.r.baseResource#",
                "$schema": "http://json-schema.org/schema#",
                "title": "SensorExample",
                "definitions": {
                  "oic.r.compositeexample": {
                    "type": "object",
                    "properties": {
                      "links": {
                        "type": "array",
                        "items": {
                          "$ref": "oic.oic-link-schema.json#"
                        }
                      }
                    }
                  }
                },
                "type": "object",
                "allOf": [
                  {"$ref": "oic.core.json#/definitions/oic.core"},
                  {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
                  {"$ref": "#/definitions/oic.r.compositeexample"}
                ],
                "required": ["n", "id", "links"]
              }
            example: |

```

```

{
  "n": "CompositeExample Name",
  "id": "composite_example_id",
  "links": [
    {
      "href": "/my_1st_reference",
      "rel": "contains",
      "rt": ["oic.r.actuatorexample"],
      "if": ["oic.if.a"]
    },
    {
      "href": "/my_2nd_reference",
      "rel": "contains",
      "rt": ["oic.r.sensorexample"],
      "if": ["oic.if.s"]
    }
  ]
}

```

## 5.8 Specification Version

Devices conformant to this specification version shall add the string “ocf.res.1.0.0” to the dmV Property in oic.wk.d.

## 6 Resource Type definitions

### 6.1 Introduction

This section contains definitions for all Resource Types; the complete set is listed in Table 6-1 Alphabetical list of Resource Types. Annex A.1 provides the basic underlying schema definition against which all other Resource Types are constructed. Annex A.1 also provides an example of the use of the “oic.if.baseline” interface that all Resource Types shall support. All other sections provide example representations of the Resource Type following the application of the default interface that is applied for that specific Resource Type.

Annex B provides definitions for all Resource Types making use of Swagger2.0 instead of RAML.

All Resource Types shall be created in accordance with the OCF Core Specification Section 7.2. All comparisons against a Resource Type shall be case insensitive.

All Resource Types in this document are prefixed with “oic.r” denoting that it is an OCF defined Resource Type.

All of the sub-clauses in clause 6, Annex A, and Annex B describe the Resource Types with a restful API definition language. The Resource Type definitions presented in clause 6, Annex A, and Annex B are formatted for readability, and so may appear to have extra line breaks. The contents of the Resource Types without the extra line breaks are available in OCF Resource Type Definitions.

**Table 6-1 Alphabetical list of Resource Types**

Friendly (informative)	Name Resource Type (rt)	Section
Acceleration Sensor	oic.r.sensor.acceleration	6.56

<b>Activity Count</b>	oic.r.sensor.activity.count	6.24
<b>Air Quality</b>	oic.r.airquality	6.66
<b>Air Quality Collection</b>	oic.r.airqualitycollection	6.67
<b>Altimeter</b>	oic.r.altimeter	6.61
<b>Atmospheric Pressure</b>	oic.r.sensor.atmosphericpressure	6.25
<b>Air Flow</b>	oic.r.airflow	6.2
<b>Air Flow Control</b>	oic.r.airflowcontrol	6.3
<b>Audio Controls</b>	oic.r.audio	6.26
<b>Auto Focus</b>	oic.r.autofocus	6.27
<b>Automatic Document Feeder</b>	oic.r.automaticdocumentfeeder	6.28
<b>Auto White Balance</b>	oic.r.colour.autowhitebalance	6.32
<b>Basic Resource Schema</b>	Not Applicable	Annex A.1
<b>Battery</b>	oic.r.energy.battery	6.4
<b>Binary switch</b>	oic.r.switch.binary	6.5
<b>Brightness</b>	oic.r.light.brightness	6.6
<b>Button Switch</b>	oic.r.button	6.29
<b>Carbon Dioxide Sensor</b>	oic.r.sensor.carbondioxide	6.30
<b>Carbon Monoxide Sensor</b>	oic.r.sensor.carbonmonoxide	6.31
<b>Clock</b>	oic.r.clock	6.62
<b>Colour Chroma</b>	oic.r.colour.chroma	6.7
<b>Colour RGB</b>	oic.r.colour.rgb	6.8
<b>Colour Saturation</b>	oic.r.colour.saturation	6.33
<b>Consumable</b>	oic.r.consumable	6.68

<b>Consumable Collection</b>	oic.r.consumablecollection	6.69
<b>Contact Sensor</b>	oic.r.sensor.contact	6.34
<b>Delay Defrost</b>	oic.r.delaydefrost	6.70
<b>Demand Response Load Control (DRLC)</b>	oic.r.energy.drlc	6.35
<b>Dimming</b>	oic.r.light.dimming	6.9
<b>Door</b>	oic.r.door	6.10
<b>Ecomode</b>	oic.r.ecomode	6.71
<b>Energy Consumption</b>	oic.r.energy.consumption	6.11
<b>Energy Overload/Circuit Breaker</b>	oic.r.energy.overload	6.36
<b>Energy Usage</b>	oic.r.energy.usage	6.12
<b>Generic Sensor</b>	oic.r.sensor	6.37
<b>Geolocation Sensor</b>	oic.r.sensor.geolocation	6.63
<b>Glass Break Sensor</b>	oic.r.sensor.glassbreak	6.38
<b>Heart Rate Zone Sensor</b>	oic.r.sensor.heart.zone	6.39
<b>Heating Zone</b>	oic.r.heatingzone	6.72
<b>Heating Zone Collection</b>	oic.r.heatingzonecollection	6.73
<b>Height</b>	oic.r.height	6.64
<b>Humidity</b>	oic.r.humidity	6.13
<b>Icemaker</b>	oic.r.icemaker	6.14
<b>Illuminance Sensor</b>	oic.r.sensor.illuminance	6.40
<b>Lock</b>	oic.r.lock.status	6.15
<b>Lock Code</b>	oic.r.lock.code	6.16
<b>Magnetic Field Direction</b>	oic.r.sensor.magneticfielddirection	6.41

<b>Media</b>	oic.r.media	6.42
<b>Media Source</b>	oic.r.mediasource	6.43
<b>Media Source List</b>	oic.r.mediasourcelist	6.44
<b>Media Source Input</b>	oic.r.media.input	6.45
<b>Media Source Output</b>	oic.r.media.output	6.46
<b>Mode</b>	oic.r.mode	6.17
<b>Movement</b>	oic.r.movement.linear	6.54
<b>Motion Sensor</b>	oic.r.sensor.motion	6.47
<b>Night Mode</b>	oic.r.nightmode	6.48
<b>Open Level</b>	oic.r.openlevel	6.18
<b>Operational State</b>	oic.r.operational.state	6.19
<b>Pan Tilt Zoom Movement</b>	oic.r.ptz	6.50
<b>Presence Sensor</b>	oic.r.sensor.presence	6.49
<b>Ramp Time</b>	oic.r.light.ramptime	6.20
<b>Refrigeration</b>	oic.r.refrigeration	6.21
<b>Selectable Levels</b>	oic.r.selectablelevels	6.74
<b>Signal Strength</b>	oic.r.signalstrength	6.51
<b>Sleep Sensor</b>	oic.r.sensor.sleep	6.58
<b>Smoke Sensor</b>	oic.r.sensor.smoke	6.59
<b>Speech Synthesis</b>	oic.r.speech.tts	6.52
<b>Temperature</b>	oic.r.temperature	6.22
<b>Three Axis Sensor</b>	oic.r.sensor.threeaxis	6.60
<b>Time Period</b>	oic.r.time.period	6.23

<b>Touch Sensor</b>	oic.r.sensor.touch	6.53
<b>UV Radiation</b>	oic.r.sensor.radiation.uv	6.54
<b>Value Conditional</b>	oic.r.value.conditional	6.75
<b>Water Sensor</b>	oic.r.sensor.water	6.55
<b>Weight</b>	oic.r.weight	6.65

1441

1442

## 1443 6.2 Air Flow

### 1444 6.2.1 Introduction

1445 This resource describes the properties associated with air flow. The supporteddirections is the set  
 1446 of valid values for the direction property for a particular instance of this resource type. The direction  
 1447 is the directionality of the air flow if applicable, if supporteddirections is also present it must be a  
 1448 value from that set. Direction values are dependent on the capabilities of the unit. The speed is an  
 1449 integer representing the current speed level for the unit. The range (from oic.r.baseresource) is an  
 1450 array of the min,max values for the speed level. If not present the range defaults to [0,100].  
 1451 automode is the status of the automode feature; Off means automode is not enabled, On means  
 1452 automode is active and the speed is automatically controlled by the device.

### 1453 6.2.2 Example URI

1454 /AirFlowResURI

### 1455 6.2.3 Resource Type

1456 The resource type (rt) is defined as: oic.r.airflow.

### 1457 6.2.4 RAML Definition

```

1458 #%RAML 0.8
1459 title: OICAirFlow
1460 version: v1.1.0-20160519
1461 traits:
1462   - interface :
1463       queryParameters:
1464         if:
1465           enum: ["oic.if.a", "oic.if.baseline"]
1466
1467 /AirFlowResURI:
1468   description: |
1469     This resource describes the properties associated with air flow.
1470     The supporteddirections is the set of valid values for the direction property for a particular
1471     instance of this resource type.
1472     The direction is the directionality of the air flow if applicable, if supporteddirections is
1473     also present it must be a value from that set.
1474     Direction values are dependent on the capabilities of the unit.
1475     The speed is an integer representing the current speed level for the unit.
1476     The range (from oic.r.baseresource) is an array of the min,max values for the speed level
1477     If not present the range defaults to [0,100].
1478     automode is the status of the automode feature; Off means automode is not enabled, On means
1479     automode is active and the speed is automatically controlled by the device.
1480

```



```

1481     is : ['interface']
1482     get:
1483         description: |
1484             Retrieves the current air flow values.
1485
1486     responses :
1487         200:
1488             body:
1489                 application/json:
1490                     schema: /
1491                         {
1492                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlow.json#",
1493                             "$schema": "http://json-schema.org/draft-04/schema#",
1494                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
1495 rights reserved.",
1496                             "title": "Air Flow",
1497                             "definitions": {
1498                                 "oic.r.airflow": {
1499                                     "type": "object",
1500                                     "properties": {
1501                                         "supporteddirections": {
1502                                             "type": "array",
1503                                             "description": "Array of possible direction settings for this instance of
1504 the Resource Type",
1505                                             "readOnly": true,
1506                                             "items": {
1507                                                 "type": "string",
1508                                                 "minItems": 1,
1509                                                 "uniqueItems": true
1510                                             }
1511                                         },
1512                                         "direction": {
1513                                             "type": "string",
1514                                             "description": "Directionality of the air flow"
1515                                         },
1516                                         "speed": {
1517                                             "type": "integer",
1518                                             "description": "Current speed level"
1519                                         },
1520                                         "automode": {
1521                                             "enum": ["On", "Off"],
1522                                             "description": "Status of the automode feature, if on speed is set by the
1523 device"
1524                                         }
1525                                     }
1526                                 },
1527                                 "type": "object",
1528                                 "allof": [
1529                                     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
1530                                     { "$ref": "#/definitions/oic.r.airflow" }
1531                                 ],
1532                                 "required": ["speed"]
1533                             }
1534                         }
1535
1536                     example: /
1537                         {
1538                             "rt": ["oic.r.airflow"],
1539                             "id": "unique_example_id",
1540                             "supporteddirections": ["left", "right", "centre"],
1541                             "direction": "left",
1542                             "speed": 5,
1543                             "range": [1, 7],
1544                             "automode": "Off"
1545                         }
1546

```

```

1547     post:
1548         description: |
1549             Sets the current air flow values.
1550             Only direction and speed may be set by an update operation.
1551
1552     body:
1553         application/json:
1554             schema: /
1555                 {
1556                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlow.json#",
1557                     "$schema": "http://json-schema.org/draft-04/schema#",
1558                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
1559 reserved.",
1560                     "title": "Air Flow",
1561                     "definitions": {
1562                         "oic.r.airflow": {
1563                             "type": "object",
1564                             "properties": {
1565                                 "supporteddirections": {
1566                                     "type": "array",
1567                                     "description": "Array of possible direction settings for this instance of the
1568 Resource Type",
1569                                     "readOnly": true,
1570                                     "items": {
1571                                         "type": "string",
1572                                         "minItems": 1,
1573                                         "uniqueItems": true
1574                                     }
1575                                 },
1576                                 "direction": {
1577                                     "type": "string",
1578                                     "description": "Directionality of the air flow"
1579                                 },
1580                                 "speed": {
1581                                     "type": "integer",
1582                                     "description": "Current speed level"
1583                                 },
1584                                 "automode": {
1585                                     "enum": ["On", "Off"],
1586                                     "description": "Status of the automode feature, if on speed is set by the
1587 device"
1588                                 }
1589                             }
1590                         },
1591                     },
1592                     "type": "object",
1593                     "allOf": [
1594                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
1595                         {"$ref": "#/definitions/oic.r.airflow"}
1596                     ],
1597                     "required": ["speed"]
1598                 }
1599
1600     example: /
1601         {
1602             "id": "unique_example_id",
1603             "direction": "right",
1604             "speed": 3
1605         }
1606
1607     responses :
1608         200:
1609             body:
1610                 application/json:
1611                     schema: /

```

```

1612     {
1613         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlow.json#",
1614         "$schema": "http://json-schema.org/draft-04/schema#",
1615         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
1616 rights reserved.",
1617         "title": "Air Flow",
1618         "definitions": {
1619             "oic.r.airflow": {
1620                 "type": "object",
1621                 "properties": {
1622                     "supporteddirections": {
1623                         "type": "array",
1624                         "description": "Array of possible direction settings for this instance of
1625 the Resource Type",
1626                         "readOnly": true,
1627                         "items": {
1628                             "type": "string",
1629                             "minItems": 1,
1630                             "uniqueItems": true
1631                         }
1632                     },
1633                     "direction": {
1634                         "type": "string",
1635                         "description": "Directionality of the air flow"
1636                     },
1637                     "speed": {
1638                         "type": "integer",
1639                         "description": "Current speed level"
1640                     },
1641                     "automode": {
1642                         "enum": ["On", "Off"],
1643                         "description": "Status of the automode feature, if on speed is set by the
1644 device"
1645                     }
1646                 }
1647             }
1648         },
1649         "type": "object",
1650         "allof": [
1651             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
1652             {"$ref": "#/definitions/oic.r.airflow"}
1653         ],
1654         "required": ["speed"]
1655     }
1656

```

```

1657     example: /
1658     {
1659         "id": "unique_example_id",
1660         "direction": "right",
1661         "speed": 3
1662     }
1663

```

403:

```

1665     description: |
1666         This response is generated by the OCF Server when the client sends:
1667         An update with an invalid property value for direction.
1668         An update with an out of range property value for speed.
1669         The server may respond with the current resource representation.
1670

```

body:

```

1672     application/json:

```

```

1673         schema: /
1674         {
1675             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlow.json#",
1676             "$schema": "http://json-schema.org/draft-04/schema#",
1677             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
1678 rights reserved.",

```

```

1679         "title": "Air Flow",
1680         "definitions": {
1681             "oic.r.airflow": {
1682                 "type": "object",
1683                 "properties": {
1684                     "supporteddirections": {
1685                         "type": "array",
1686                         "description": "Array of possible direction settings for this instance of
the Resource Type",
1687
1688                         "readOnly": true,
1689                         "items": {
1690                             "type": "string",
1691                             "minItems": 1,
1692                             "uniqueItems": true
1693                         }
1694                     },
1695                     "direction": {
1696                         "type": "string",
1697                         "description": "Directionality of the air flow"
1698                     },
1699                     "speed": {
1700                         "type": "integer",
1701                         "description": "Current speed level"
1702                     },
1703                     "automode": {
1704                         "enum": ["On", "Off"],
1705                         "description": "Status of the automode feature, if on speed is set by the
device"
1706                     }
1707                 }
1708             }
1709         },
1710         "type": "object",
1711         "allOf": [
1712             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
1713             {"$ref": "#/definitions/oic.r.airflow"}
1714         ],
1715         "required": ["speed"]
1716     }
1717 }
1718
1719     example: /
1720     {
1721         "id": "unique_example_id",
1722         "supporteddirections": ["left", "right", "centre"],
1723         "direction": "right",
1724         "speed": 3
1725     }
1726

```

## 6.2.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
automode	multiple types: see schema			Status of the automode feature, if on speed is set by the device
direction	string			Directionality of the air flow
supporteddirections	array: see schema		Read Only	Array of possible direction settings for this instance of the Resource Type
speed	integer	yes		Current speed level

## 6.2.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/AirFlowResURI		get	post		

## 6.3 Air Flow Control

### 6.3.1 Introduction

This resource describes the attributes associated with control of air flow, for example as modelled by a Thermostat (fan), Room A/C or other device. The resource is a composite resource being made up as a collection of: AirFlow Resource BinarySwitch Resource

### 6.3.2 Example URI

/AirFlowControlResURI

### 6.3.3 Resource Type

The resource type (rt) is defined as: oic.r.airflowcontrol.

### 6.3.4 RAML Definition

```
##RAML 0.8
title: OICAirFlowControl
version: v1.1.0-20160519

traits:
- interface-b :
  queryParameters:
    if:
      enum: ["oic.if.b"]
- interface-all :
  queryParameters:
    if:
      enum: ["oic.if.ll", "oic.if.b", "oic.if.baseline"]

/AirFlowControlResURI:
  description: |
    This resource describes the attributes associated with control of air flow,
    for example as modelled by a Thermostat (fan), Room A/C or other device.
    The resource is a composite resource being made up as a collection of:
    AirFlow Resource
    BinarySwitch Resource

  get:
    description: |
      Retrieves the current air flow control values.

    is : ['interface-all']

    responses :
      200:
        body:
          application/json:
            schema: /
              {
                "id":
"http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlowControl.json#",
                "$schema": "http://json-schema.org/draft-04/schema#",
                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                "title": "Air Flow Control",
                "definitions": {
                  "oic.r.airflowcontrol": {
```

```

1779         "type": "object",
1780         "properties": {
1781             "airFlowControl": {
1782                 "type": "array",
1783                 "minItems": 2,
1784                 "maxItems": 2,
1785                 "items": {
1786                     "$ref": "oic.oic-link-schema.json#/definitions/oic.oic-link"
1787                 }
1788             }
1789         }
1790     },
1791     },
1792     "type": "object",
1793     "allOf": [
1794         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
1795         { "$ref": "#/definitions/oic.r.airflowcontrol" }
1796     ],
1797     "required": ["airFlowControl"]
1798 }
1799
1800 example: /
1801 {
1802     "rt": ["oic.r.airflowcontrol"],
1803     "id": "unique_example_id",
1804     "airFlowControl": [
1805         {
1806             "href": "/BinarySwitchResURI",
1807             "rel": "contains",
1808             "rt": ["oic.r.switch.binary"],
1809             "if": ["oic.if.a"],
1810             "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
1811         },
1812         {
1813             "href": "/AirFlowResURI",
1814             "rel": "contains",
1815             "rt": ["oic.r.airflow"],
1816             "if": ["oic.if.a"],
1817             "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
1818         }
1819     ]
1820 }
1821
1822 post:
1823     description: |
1824         Sets the current air flow control values using the batch interface
1825
1826     is : ['interface-b']
1827     body:
1828         application/json:
1829             schema: /
1830             {
1831                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlowControl-
1832 Batch.json#",
1833                 "$schema": "http://json-schema.org/draft-04/schema#",
1834                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
1835 reserved.",
1836                 "title": "Air Flow Control",
1837                 "definitions": {
1838                     "oic.r.airflowcontrol": {
1839                         "type": "object",
1840                         "properties": {
1841                             "airFlowControl": {
1842                                 "type": "array",
1843                                 "items": {
1844                                     "anyOf": [
1845                                         { "$ref": "oic.r.switch.binary.json#/definitions/oic.r.switch.binary" },

```

```

1846         {"$ref": "oic.r.airFlow.json#/definitions/oic.r.airflow"}
1847     ]
1848 }
1849 }
1850 }
1851 }
1852 },
1853 "type": "object",
1854 "allOf": [
1855     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
1856     {"$ref": "#/definitions/oic.r.airflowcontrol"}
1857 ],
1858 "required": ["airFlowControl"]
1859 }
1860
1861 example: /
1862 {
1863     "id": "unique_example_id",
1864     "airFlowControl": [
1865         {
1866             "id": "unique_example_id",
1867             "value": true
1868         },
1869         {
1870             "id": "unique_example_id",
1871             "direction": "right",
1872             "speed": 3
1873         }
1874     ]
1875 }
1876
1877 responses :
1878 200:
1879     body:
1880         application/json:
1881             schema: /
1882             {
1883                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlowControl-
1884 Batch.json#",
1885                 "$schema": "http://json-schema.org/draft-04/schema#",
1886                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
1887 rights reserved.",
1888                 "title": "Air Flow Control",
1889                 "definitions": {
1890                     "oic.r.airflowcontrol": {
1891                         "type": "object",
1892                         "properties": {
1893                             "airFlowControl": {
1894                                 "type": "array",
1895                                 "items": {
1896                                     "anyOf": [
1897                                         {"$ref": "oic.r.switch.binary.json#/definitions/oic.r.switch.binary"},
1898                                         {"$ref": "oic.r.airFlow.json#/definitions/oic.r.airflow"}
1899                                     ]
1900                                 }
1901                             }
1902                         }
1903                     },
1904                     "type": "object",
1905                     "allOf": [
1906                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
1907                         {"$ref": "#/definitions/oic.r.airflowcontrol"}
1908                     ],
1909                     "required": ["airFlowControl"]
1910                 }
1911             }
1912

```

```

1913     example: /
1914         {
1915             "id": "unique_example_id",
1916             "airFlowControl": [
1917                 {
1918                     "id": "unique_example_id",
1919                     "value": true
1920                 },
1921                 {
1922                     "id": "unique_example_id",
1923                     "direction": "right",
1924                     "speed": 3
1925                 }
1926             ]
1927         }
1928
1929 403:
1930     description: |
1931         This response is generated by the OIC Server when the client sends:
1932         An update with an invalid property value for direction.
1933         An update with an out of range property value for speed.
1934         The server responds with the current resource representation.
1935
1936     body:
1937         application/json:
1938             schema: /
1939                 {
1940                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airFlowControl-
1941 Batch.json#",
1942                     "$schema": "http://json-schema.org/draft-04/schema#",
1943                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
1944 rights reserved.",
1945                     "title": "Air Flow Control",
1946                     "definitions": {
1947                         "oic.r.airflowcontrol": {
1948                             "type": "object",
1949                             "properties": {
1950                                 "airFlowControl": {
1951                                     "type": "array",
1952                                     "items": {
1953                                         "anyOf": [
1954                                             {"$ref": "oic.r.switch.binary.json#/definitions/oic.r.switch.binary"},
1955                                             {"$ref": "oic.r.airFlow.json#/definitions/oic.r.airflow"}
1956                                         ]
1957                                     }
1958                                 }
1959                             }
1960                         },
1961                     },
1962                     "type": "object",
1963                     "allOf": [
1964                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
1965                         {"$ref": "#/definitions/oic.r.airflowcontrol"}
1966                     ],
1967                     "required": ["airFlowControl"]
1968                 }
1969
1970     example: /
1971         {
1972             "id": "unique_example_id",
1973             "airFlowControl": [
1974                 {
1975                     "id": "unique_example_id",
1976                     "value": true
1977                 },
1978                 {
1979                     "id": "unique_example_id",

```



```

1980         "direction": "right",
1981         "speed": 3
1982     }
1983 }
1984 }
1985

```

### 6.3.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
airFlowControl	array: see schema	yes		

### 6.3.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/AirFlowControlResURI		get	post		

## 6.4 Battery

### 6.4.1 Introduction

This resource represents the charge state of a battery. The charge is an integer showing the current battery charge level. The charge is a percentage in the range 0-100. A value of 0 means fully discharged. A value of 100 means fully charged.

### 6.4.2 Example URI

/BatteryResURI

### 6.4.3 Resource Type

The resource type (rt) is defined as: oic.r.energy.battery.

### 6.4.4 RAML Definition

```

1998 #%RAML 0.8
1999 title: OICBattery
2000 version: v1.1.0-20160519
2001
2002 traits:
2003   - interface :
2004     queryParameters:
2005       if:
2006         enum: ["oic.if.s", "oic.if.baseline"]
2007
2008 /BatteryResURI:
2009   description: |
2010     This resource represents the charge state of a battery.
2011     The charge is an integer showing the current battery charge level.
2012     The charge is a percentage in the range 0-100.
2013     A value of 0 means fully discharged.
2014     A value of 100 means fully charged.
2015
2016   is : ['interface']
2017
2018   get:
2019     description: |
2020       Retrieves the state of the battery.
2021
2022   responses :
2023     200:
2024       body:
2025         application/json:
2026           schema: /

```

```

{
  "id":
"http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.battery.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
  "title": "Battery",
  "definitions": {
    "oic.r.energy.battery": {
      "type": "object",
      "properties": {
        "charge" : {
          "type": "integer",
          "description": "The current charge percentage.",
          "readOnly": true,
          "minimum": 0,
          "maximum": 100
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
    { "$ref": "#/definitions/oic.r.energy.battery" }
  ],
  "required": [ "charge" ]
}

```

```

example: /
{
  "rt":      ["oic.r.energy.battery"],
  "id":      "unique_example_id",
  "charge": 50
}

```

#### 6.4.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
charge	integer	yes	Read Only	The current charge percentage.

#### 6.4.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/BatteryResURI		get			

### 6.5 Binary Switch

#### 6.5.1 Introduction

This resource describes a binary switch (on/off). The value is a boolean. A value of 'true' means that the switch is on. A value of 'false' means that the switch is off.

#### 6.5.2 Example URI

/BinarySwitchResURI

#### 6.5.3 Resource Type

The resource type (rt) is defined as: oic.r.switch.binary.

#### 6.5.4 RAML Definition

```

#%RAML 0.8
title: OICBinarySwitch
version: v1.1.0-20160519
traits:

```

```

2076 - interface :
2077     queryParameters:
2078         if:
2079             enum: ["oic.if.a", "oic.if.baseline"]
2080
2081 /BinarySwitchResURI:
2082     description: |
2083         This resource describes a binary switch (on/off).
2084         The value is a boolean.
2085         A value of 'true' means that the switch is on.
2086         A value of 'false' means that the switch is off.
2087
2088     is : ['interface']
2089
2090     get:
2091         responses :
2092             200:
2093                 body:
2094                     application/json:
2095                         schema: /
2096                             {
2097                                 "id":
2098 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.switch.binary.json#",
2099                                 "$schema": "http://json-schema.org/draft-04/schema#",
2100                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
2101                                 "title": "Binary Switch",
2102                                 "definitions": {
2103                                     "oic.r.switch.binary": {
2104                                         "type": "object",
2105                                         "properties": {
2106                                             "value": {
2107                                                 "type": "boolean",
2108                                                 "description": "Status of the switch"
2109                                             }
2110                                         }
2111                                     }
2112                                 },
2113                                 "type": "object",
2114                                 "allOf": [
2115                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2116                                     {"$ref": "#/definitions/oic.r.switch.binary"}
2117                                 ],
2118                                 "required": [ "value" ]
2119                             }
2120
2121                         example: /
2122                             {
2123                                 "rt":      ["oic.r.switch.binary"],
2124                                 "id":      "unique_example_id",
2125                                 "value":   false
2126                             }
2127
2128     post:
2129         body:
2130             application/json:
2131                 schema: /
2132                     {
2133                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.switch.binary.json#",
2134                         "$schema": "http://json-schema.org/draft-04/schema#",
2135                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
reserved.",
2136                         "title": "Binary Switch",

```

```

2138         "definitions": {
2139             "oic.r.switch.binary": {
2140                 "type": "object",
2141                 "properties": {
2142                     "value": {
2143                         "type": "boolean",
2144                         "description": "Status of the switch"
2145                     }
2146                 }
2147             },
2148             "type": "object",
2149             "allOf": [
2150                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2151                 {"$ref": "#/definitions/oic.r.switch.binary"}
2152             ],
2153             "required": [ "value" ]
2154         }
2155     }
2156
2157     example: /
2158     {
2159         "id": "unique_example_id",
2160         "value": true
2161     }
2162
2163     responses :
2164     200:
2165         body:
2166             application/json:
2167                 schema: /
2168                 {
2169                     "id":
2170 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.switch.binary.json#",
2171                     "$schema": "http://json-schema.org/draft-04/schema#",
2172                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2173 rights reserved.",
2174                     "title": "Binary Switch",
2175                     "definitions": {
2176                         "oic.r.switch.binary": {
2177                             "type": "object",
2178                             "properties": {
2179                                 "value": {
2180                                     "type": "boolean",
2181                                     "description": "Status of the switch"
2182                                 }
2183                             }
2184                         }
2185                     },
2186                     "type": "object",
2187                     "allOf": [
2188                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2189                         {"$ref": "#/definitions/oic.r.switch.binary"}
2190                     ],
2191                     "required": [ "value" ]
2192                 }
2193
2194     example: /
2195     {
2196         "id": "unique_example_id",
2197         "value": true
2198     }
2199

```

### 6.5.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

value	boolean	yes		Status of the switch
-------	---------	-----	--	----------------------

## 6.5.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/BinarySwitchResURI		get	post		

## 6.6 Brightness

### 6.6.1 Introduction

This resource describes the brightness of a light or lamp. brightness is an integer showing the current brightness level as a quantized representation in the range 0-100. A brightness of 0 is the minimum for the resource. A brightness of 100 is the maximum for the resource.

### 6.6.2 Example URI

/BrightnessResURI

### 6.6.3 Resource Type

The resource type (rt) is defined as: oic.r.light.brightness.

### 6.6.4 RAML Definition

```

#%RAML 0.8
title: OICBrightness
version: v1.1.0-20160519

traits:
- interface :
    queryParameters:
        if:
            enum: ["oic.if.a", "oic.if.baseline"]

/BrightnessResURI:
    description: |
        This resource describes the brightness of a light or lamp.
        brightness is an integer showing the current brightness level as a quantized representation in
        the range 0-100.
        A brightness of 0 is the minimum for the resource.
        A brightness of 100 is the maximum for the resource.

    is : ['interface']

    get:
        description: |
            Retrieves the current brightness level.

        responses :
            200:
                body:
                    application/json:
                        schema: /
                            {
                                "id":
                                    "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.brightness.json#",
                                    "$schema": "http://json-schema.org/draft-04/schema#",
                                    "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
                                    rights reserved.",
                                    "title": "Brightness",
                                    "definitions": {
                                        "oic.r.light.brightness": {
                                            "type": "object",
                                            "properties": {

```

```

2250         "brightness": {
2251             "type": "integer",
2252             "description": "Quantized representation in the range 0-100 of the current
2253 sensed or set value for Brightness",
2254             "minimum": 0,
2255             "maximum": 100
2256         }
2257     }
2258 },
2259     "type": "object",
2260     "allOf": [
2261         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2262         {"$ref": "#/definitions/oic.r.light.brightness"}
2263     ],
2264     "required": [ "brightness" ]
2265 }
2266
2267
2268 example: /
2269 {
2270     "rt":          ["oic.r.light.brightness"],
2271     "id":          "unique_example_id",
2272     "brightness": 50
2273 }
2274
2275 post:
2276     description: |
2277         Sets the desired brightness level.
2278
2279     body:
2280         application/json:
2281             schema: /
2282                 {
2283                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.brightness.json#",
2284                     "$schema": "http://json-schema.org/draft-04/schema#",
2285                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
2286 reserved.",
2287                     "title": "Brightness",
2288                     "definitions": {
2289                         "oic.r.light.brightness": {
2290                             "type": "object",
2291                             "properties": {
2292                                 "brightness": {
2293                                     "type": "integer",
2294                                     "description": "Quantized representation in the range 0-100 of the current
2295 sensed or set value for Brightness",
2296                                     "minimum": 0,
2297                                     "maximum": 100
2298                                 }
2299                             }
2300                         }
2301                     },
2302                     "type": "object",
2303                     "allOf": [
2304                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2305                         {"$ref": "#/definitions/oic.r.light.brightness"}
2306                     ],
2307                     "required": [ "brightness" ]
2308                 }
2309
2310             example: /
2311                 {
2312                     "id":          "unique_example_id",
2313                     "brightness": 10
2314                 }
2315

```

```

2316     responses :
2317         200:
2318             description: |
2319                 Indicates that the brightness was changed.
2320                 The new brightness level is provided in the response.
2321
2322             body:
2323                 application/json:
2324                     schema: /
2325                         {
2326                             "id":
2327 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.brightness.json#",
2328                             "$schema": "http://json-schema.org/draft-04/schema#",
2329                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2330 rights reserved.",
2331                             "title": "Brightness",
2332                             "definitions": {
2333                                 "oic.r.light.brightness": {
2334                                     "type": "object",
2335                                     "properties": {
2336                                         "brightness": {
2337                                             "type": "integer",
2338                                             "description": "Quantized representation in the range 0-100 of the current
2339 sensed or set value for Brightness",
2340                                             "minimum": 0,
2341                                             "maximum": 100
2342                                         }
2343                                     }
2344                                 },
2345                                 "type": "object",
2346                                 "allOf": [
2347                                     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
2348                                     { "$ref": "#/definitions/oic.r.light.brightness" }
2349                                 ],
2350                                 "required": [ "brightness" ]
2351                             }
2352
2353                     example: /
2354                         {
2355                             "id": "unique_example_id",
2356                             "brightness": 10
2357                         }
2358
2359

```

### 2360 6.6.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
brightness	integer	yes		Quantized representation in the range 0-100 of the current sensed or set value for Brightness

### 2361 6.6.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/BrightnessResURI		get	post		

## 2362 6.7 Colour Chroma

### 2363 6.7.1 Introduction

2364 This resource describes the colour using chroma conventions. Properties are hue, saturation, csc,  
2365 and ct. Hue and saturation are integer values as defined by the CIECAM02 model definition (see  
2366 reference [CIE CIE159:2004]). csc is the colour space coordinates in CIE colour space. The first  
2367 item in the array is the X coordinate. The second item in the array is the Y coordinate. ct is the  
2368 Mired colour temperature.

### 2369 6.7.2 Example URI

2370 /ColourChromaResURI

### 2371 6.7.3 Resource Type

2372 The resource type (rt) is defined as: oic.r.colour.chroma.

### 2373 6.7.4 RAML Definition

```
2374 #%RAML 0.8
2375 title: OICColourChroma
2376 version: v1.1.0-20160519
2377 traits:
2378   - interface :
2379       queryParameters:
2380           if:
2381               enum: ["oic.if.a", "oic.if.baseline"]
2382
2383 /ColourChromaResURI:
2384     description: |
2385         This resource describes the colour using chroma conventions.
2386         Properties are hue, saturation, csc, and ct.
2387         Hue and saturation are integer values as defined by the CIECAM02 model definition (see
2388         reference [CIE CIE159:2004]).
2389         csc is the colour space coordinates in CIE colour space.
2390         The first item in the array is the X coordinate.
2391         The second item in the array is the Y coordinate.
2392         ct is the Mired colour temperature.
2393
2394     is : ['interface']
2395     get:
2396         description: |
2397             Provides the colour using chroma conventions.
2398
2399     responses :
2400         200:
2401             body:
2402                 application/json:
2403                     schema: /
2404                         {
2405                             "id":
2406                                 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.chroma.json#",
2407                             "$schema": "http://json-schema.org/draft-04/schema#",
2408                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2409                             rights reserved.",
2410                             "title": "Colour Chroma",
2411                             "definitions": {
2412                                 "oic.r.colour.chroma": {
2413                                     "type": "object",
2414                                     "properties": {
2415                                         "hue": {
2416                                             "type": "integer",
```



```

2417         "description": "Hue as defined by the CIECAM02 model definition"
2418     },
2419     "saturation": {
2420         "type": "integer",
2421         "description": "Saturation as defined by the CIECAM02 model definition"
2422     },
2423     "csc": {
2424         "type": "array",
2425         "description": "X and Y coordinates of the colour in CIE colour space",
2426         "minItems": 2,
2427         "maxItems": 2,
2428         "items": {
2429             "type": "number",
2430             "minimum": 0,
2431             "maximum": 1
2432         }
2433     },
2434     "ct": {
2435         "type": "integer",
2436         "description": "Mired colour temperature"
2437     }
2438 }
2439 }
2440 },
2441 "type": "object",
2442 "allOf": [
2443     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2444     {"$ref": "#/definitions/oic.r.colour.chroma"}
2445 ],
2446 "required": [ "hue", "saturation", "csc" ]
2447 }
2448 }
2449
2450 example: /
2451 {
2452     "rt": [ "oic.r.colour.chroma" ],
2453     "id": "unique_example_id",
2454     "hue": 13088,
2455     "saturation": 212,
2456     "csc": [ 0.41, 0.51 ],
2457     "ct": 457
2458 }
2459
2460 post:
2461     description: |
2462         Sets current colour chroma values
2463
2464     body:
2465         application/json:
2466             schema: /
2467             {
2468                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.chroma.json#",
2469                 "$schema": "http://json-schema.org/draft-04/schema#",
2470                 "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
2471 reserved.",
2472                 "title": "Colour Chroma",
2473                 "definitions": {
2474                     "oic.r.colour.chroma": {
2475                         "type": "object",
2476                         "properties": {
2477                             "hue": {
2478                                 "type": "integer",
2479                                 "description": "Hue as defined by the CIECAM02 model definition"
2480                             },
2481                             "saturation": {
2482                                 "type": "integer",
2483                                 "description": "Saturation as defined by the CIECAM02 model definition"

```

```

2484         },
2485         "csc": {
2486             "type": "array",
2487             "description": "X and Y coordinates of the colour in CIE colour space",
2488             "minItems": 2,
2489             "maxItems": 2,
2490             "items": {
2491                 "type": "number",
2492                 "minimum": 0,
2493                 "maximum": 1
2494             }
2495         },
2496         "ct": {
2497             "type": "integer",
2498             "description": "Mired colour temperature"
2499         }
2500     }
2501 },
2502 {
2503     "type": "object",
2504     "allOf": [
2505         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
2506         { "$ref": "#/definitions/oic.r.colour.chroma" }
2507     ],
2508     "required": [ "hue", "saturation", "csc" ]
2509 }
2510 }
2511
2512 example: /
2513 {
2514     "id": "unique_example_id",
2515     "hue": 13088,
2516     "saturation": 212,
2517     "csc": [0.41, 0.51],
2518     "ct": 457
2519 }
2520
2521 responses :
2522 200:
2523     body:
2524         application/json:
2525             schema: /
2526                 {
2527                     "id":
2528 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.chroma.json#",
2529                     "$schema": "http://json-schema.org/draft-04/schema#",
2530                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2531 rights reserved.",
2532                     "title": "Colour Chroma",
2533                     "definitions": {
2534                         "oic.r.colour.chroma": {
2535                             "type": "object",
2536                             "properties": {
2537                                 "hue": {
2538                                     "type": "integer",
2539                                     "description": "Hue as defined by the CIECAM02 model definition"
2540                                 },
2541                                 "saturation": {
2542                                     "type": "integer",
2543                                     "description": "Saturation as defined by the CIECAM02 model definition"
2544                                 },
2545                                 "csc": {
2546                                     "type": "array",
2547                                     "description": "X and Y coordinates of the colour in CIE colour space",
2548                                     "minItems": 2,
2549                                     "maxItems": 2,
2550                                     "items": {

```

```
2551         "type": "number",
2552         "minimum": 0,
2553         "maximum": 1
2554     },
2555     },
2556     "ct": {
2557         "type": "integer",
2558         "description": "Mired colour temperature"
2559     }
2560 }
2561 }
2562 },
2563 "type": "object",
2564 "allOf": [
2565     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
2566     { "$ref": "#/definitions/oic.r.colour.chroma" }
2567 ],
2568 "required": [ "hue", "saturation", "csc" ]
2569 }
2570 }
2571
2572 example: /
2573 {
2574     "id": "unique_example_id",
2575     "hue": 13088,
2576     "saturation": 212,
2577     "csc": [0.41,0.51],
2578     "ct": 467
2579 }
2580
```

2581 **6.7.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
hue	integer	yes		Hue as defined by the CIECAM02 model definition
saturation	integer	yes		Saturation as defined by the CIECAM02 model definition
csc	array: see schema	yes		X and Y coordinates of the colour in CIE colour space
ct	integer			Mired colour temperature

2582 **6.7.6 CRUDN behavior**

Resource	Create	Read	Update	Delete	Notify
/ColourChromaResURI		get	post		

2583 **6.8 Colour RGB**

2584 **6.8.1 Introduction**

2585 This resource specifies the actual colour in the RGB space represented as an array of integers.  
2586 Each colour value is described with a Red, Green, Blue component. These colour values are  
2587 encoded as an array of integer values ([R,G,B]). The minimum and maximum colour value per  
2588 component may be described by range (from oic.r.baseresource). When range (from  
2589 oic.r.baseresource) is omitted, then the range is [0,255].

```

2590 6.8.2 Example URI
2591 /ColourRGBResURI
2592 6.8.3 Resource Type
2593 The resource type (rt) is defined as: oic.r.colour.rgb.
2594 6.8.4 RAML Definition
2595 #%RAML 0.8
2596 title: OICColourRGB
2597 version: v1.1.0-20160519
2598 traits:
2599   - interface :
2600       queryParameters:
2601           if:
2602               enum: ["oic.if.a", "oic.if.baseline"]
2603
2604 /ColourRGBResURI:
2605     description: |
2606         This resource specifies the actual colour in the RGB space represented as an array of integers.
2607         Each colour value is described with a Red, Green, Blue component.
2608         These colour values are encoded as an array of integer values ([R,G,B]).
2609         The minimum and maximum colour value per component may be described by range (from
2610         oic.r.baseresource).
2611         When range (from oic.r.baseresource) is omitted, then the range is [0,255].
2612
2613     is : ['interface']
2614     get:
2615         description: |
2616             Retrieves the current colour in RGB.
2617             Value is an array of integer values in the order R,G,B.
2618
2619     responses :
2620         200:
2621             body:
2622                 application/json:
2623                     schema: /
2624                         {
2625                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.rgb.json#",
2626                             "$schema": "http://json-schema.org/draft-04/schema#",
2627                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2628                             rights reserved.",
2629                             "title": "Colour RGB",
2630                             "definitions": {
2631                                 "oic.r.colour.rgb": {
2632                                     "type": "object",
2633                                     "properties": {
2634                                         "rgbValue": {
2635                                             "type": "array",
2636                                             "description": "RGB value; the first item is the R, second the G, third the
2637                                             B.",
2638                                             "minItems": 3,
2639                                             "maxItems": 3,
2640                                             "items": {
2641                                                 "type": "integer"
2642                                             }
2643                                         }
2644                                     }
2645                                 },
2646                                 "type": "object",
2647                                 "allOf": [

```

```

2649         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2650         {"$ref": "#/definitions/oic.r.colour.rgb"}
2651     ],
2652     "required": ["rgbValue"]
2653 }
2654
2655     example: /
2656     {
2657         "rt":         ["oic.r.colour.rgb"],
2658         "id":         "unique_example_id",
2659         "rgbValue":   [255,255,255],
2660         "range":      [0,255]
2661     }
2662
2663     post:
2664         description: |
2665             Sets the current colourRGB value
2666
2667         body:
2668             application/json:
2669                 schema: /
2670                 {
2671                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.rgb.json#",
2672                     "$schema": "http://json-schema.org/draft-04/schema#",
2673                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
2674 reserved.",
2675                     "title": "Colour RGB",
2676                     "definitions": {
2677                         "oic.r.colour.rgb": {
2678                             "type": "object",
2679                             "properties": {
2680                                 "rgbValue": {
2681                                     "type": "array",
2682                                     "description": "RGB value; the first item is the R, second the G, third the
2683 B.",
2684                                     "minItems": 3,
2685                                     "maxItems": 3,
2686                                     "items": {
2687                                         "type": "integer"
2688                                     }
2689                                 }
2690                             }
2691                         }
2692                     },
2693                     "type": "object",
2694                     "allOf": [
2695                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2696                         {"$ref": "#/definitions/oic.r.colour.rgb"}
2697                     ],
2698                     "required": ["rgbValue"]
2699                 }
2700
2701         example: /
2702         {
2703             "id":         "unique_example_id",
2704             "rgbValue":   [255,0,0]
2705         }
2706
2707     responses :
2708         200:
2709             body:
2710                 application/json:
2711                     schema: /

```

```

2712     {
2713         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.rgb.json#",
2714         "$schema": "http://json-schema.org/draft-04/schema#",
2715         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
2716         "title": "Colour RGB",
2717         "definitions": {
2718             "oic.r.colour.rgb": {
2719                 "type": "object",
2720                 "properties": {
2721                     "rgbValue": {
2722                         "type": "array",
2723                         "description": "RGB value; the first item is the R, second the G, third the
B.",
2724                         "minItems": 3,
2725                         "maxItems": 3,
2726                         "items": {
2727                             "type": "integer"
2728                         }
2729                     }
2730                 }
2731             }
2732         },
2733         "type": "object",
2734         "allOf": [
2735             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2736             {"$ref": "#/definitions/oic.r.colour.rgb"}
2737         ],
2738         "required": ["rgbValue"]
2739     }
2740 }
2741
2742
2743 example: /
2744 {
2745     "id": "unique_example_id",
2746     "rgbValue": [255,0,0]
2747 }
2748

```

## 2749 6.8.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rgbValue	array: see schema	yes		RGB value; the first item is the R, second the G, third the B.

## 2750 6.8.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/ColourRGBResURI		get	post		

## 2751 6.9 Dimming

### 2752 6.9.1 Introduction

2753 This resource describes a dimming function. The value is an integer showing the current dimming  
2754 level. If step (from oic.r.baseresource) is present then it represents the increment between dimmer  
2755 values. When range (from oic.r.baseresource) is omitted, then the range is [0,100]. A value of 0  
2756 means total dimming; a value of 100 means no dimming.

### 2757 6.9.2 Example URI

2758 /DimmingResURI

### 2759 6.9.3 Resource Type

2760 The resource type (rt) is defined as: oic.r.light.dimming.

## 6.9.4 RAML Definition

```
2761 6.9.4 RAML Definition
2762 #%RAML 0.8
2763 title: OICDimming
2764 version: v1.1.0-20160519
2765 traits:
2766   - interface :
2767     queryParameters:
2768       if:
2769         enum: ["oic.if.a", "oic.if.baseline"]
2770
2771 /DimmingResURI:
2772   description: |
2773     This resource describes a dimming function.
2774     The value is an integer showing the current dimming level.
2775     If step (from oic.r.baseresource) is present then it represents the increment between dimmer
2776 values.
2777     When range (from oic.r.baseresource) is omitted, then the range is [0,100].
2778     A value of 0 means total dimming; a value of 100 means no dimming.
2779
2780   is : ['interface']
2781   get:
2782     description: |
2783       Retrieves the current dimming level.
2784
2785   responses :
2786     200:
2787       body:
2788         application/json:
2789           schema: /
2790             {
2791               "id":
2792 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.dimming.json#",
2793               "$schema": "http://json-schema.org/draft-04/schema#",
2794               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2795 rights reserved.",
2796               "title": "Dimming",
2797               "definitions": {
2798                 "oic.r.light.dimming": {
2799                   "type": "object",
2800                   "properties": {
2801                     "dimmingSetting": {
2802                       "type": "integer",
2803                       "description": "Current dimming value"
2804                     }
2805                   }
2806                 }
2807               },
2808               "type": "object",
2809               "allOf": [
2810                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
2811                 { "$ref": "#/definitions/oic.r.light.dimming" }
2812               ],
2813               "required": ["dimmingSetting"]
2814             }
2815
2816   example: /
2817     {
2818       "rt":          ["oic.r.light.dimming"],
2819       "id":          "unique_example_id",
2820       "dimmingSetting": 30,
2821       "step":        5,
```

```

2822         "range":          [0,100]
2823     }
2824
2825     post:
2826         description: |
2827             Sets the desired dimming level.
2828
2829         body:
2830             application/json:
2831                 schema: /
2832                     {
2833                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.dimming.json#",
2834                         "$schema": "http://json-schema.org/draft-04/schema#",
2835                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
2836 reserved.",
2837                         "title": "Dimming",
2838                         "definitions": {
2839                             "oic.r.light.dimming": {
2840                                 "type": "object",
2841                                 "properties": {
2842                                     "dimmingSetting": {
2843                                         "type": "integer",
2844                                         "description": "Current dimming value"
2845                                     }
2846                                 }
2847                             }
2848                         },
2849                         "type": "object",
2850                         "allOf": [
2851                             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
2852                             { "$ref": "#/definitions/oic.r.light.dimming" }
2853                         ],
2854                         "required": ["dimmingSetting"]
2855                     }
2856
2857                 example: /
2858                     {
2859                         "id":          "unique_example_id",
2860                         "dimmingSetting": 40
2861                     }
2862
2863     responses :
2864         200:
2865             description: |
2866                 Indicates that the dimming was changed.
2867                 The new dimming level is provided in the response.
2868
2869             body:
2870                 application/json:
2871                     schema: /
2872                         {
2873                             "id":
2874 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.dimming.json#",
2875                             "$schema": "http://json-schema.org/draft-04/schema#",
2876                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2877 rights reserved.",
2878                             "title": "Dimming",
2879                             "definitions": {
2880                                 "oic.r.light.dimming": {
2881                                     "type": "object",
2882                                     "properties": {
2883                                         "dimmingSetting": {
2884                                             "type": "integer",
2885                                             "description": "Current dimming value"

```



```

2886         }
2887     }
2888 }
2889 },
2890 "type": "object",
2891 "allOf": [
2892     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2893     {"$ref": "#/definitions/oic.r.light.dimming"}
2894 ],
2895 "required": ["dimmingSetting"]
2896 }
2897
2898 example: /
2899 {
2900     "id": "unique_example_id",
2901     "dimmingSetting": 40
2902 }
2903
2904 403:
2905 description: |
2906     This response is generated by the OIC Server when the client sends:
2907     An update with an out of range property value for dimmingSetting.
2908     The server responds with the current resource representation.
2909
2910 body:
2911 application/json:
2912     schema: /
2913     {
2914         "id":
2915 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.dimming.json#",
2916         "$schema": "http://json-schema.org/draft-04/schema#",
2917         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2918 rights reserved.",
2919         "title": "Dimming",
2920         "definitions": {
2921             "oic.r.light.dimming": {
2922                 "type": "object",
2923                 "properties": {
2924                     "dimmingSetting": {
2925                         "type": "integer",
2926                         "description": "Current dimming value"
2927                     }
2928                 }
2929             }
2930         },
2931         "type": "object",
2932         "allOf": [
2933             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
2934             {"$ref": "#/definitions/oic.r.light.dimming"}
2935         ],
2936         "required": ["dimmingSetting"]
2937     }
2938
2939 example: /
2940 {
2941     "id": "unique_example_id",
2942     "dimmingSetting": 40
2943 }
2944

```

## 6.9.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
dimmingSetting	integer	yes		Current dimming value

## 6.9.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/DimmingResURI		get	post		

## 6.10 Door

### 6.10.1 Introduction

This resource describes the open state of the door. A door is modelled by means of openState (Open/Closed), openDuration (ISO 8601 Time), and openAlarm (boolean). For openState, the value 'Open' indicates the door is open. The value 'Closed' indicates the door is closed. The type of openDuration is an ISO 8601 Time encoded string. The openAlarm value 'true' indicates that the open alarm is active. The openAlarm value 'false' indicates that open alarm is not active.

### 6.10.2 Example URI

/DoorResURI

### 6.10.3 Resource Type

The resource type (rt) is defined as: oic.r.door.

### 6.10.4 RAML Definition

```
##RAML 0.8
title: OICDoor
version: v1.1.0-20160519

traits:
- interface-actuator :
  queryParameters:
    if:
      enum: ["oic.if.a", "oic.if.baseline"]
- interface-all :
  queryParameters:
    if:
      enum: ["oic.if.a", "oic.if.s", "oic.if.baseline"]

/DoorResURI:
  description: |
    This resource describes the open state of the door.
    A door is modelled by means of openState (Open/Closed), openDuration (ISO 8601 Time), and
    openAlarm (boolean).
    For openState, the value 'Open' indicates the door is open.
    The value 'Closed' indicates the door is closed.
    The type of openDuration is an ISO 8601 Time encoded string.
    The openAlarm value 'true' indicates that the open alarm is active.
    The openAlarm value 'false' indicates that open alarm is not active.

  get:
    description: |
      retrieves the state of the Door.

    is : ['interface-all']
    responses :
      200:
        body:
          application/json:
            schema: /
              {
                "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.door.json#",
                "$schema": "http://json-schema.org/draft-04/schema#",
```

```

2996         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
2997 rights reserved.",
2998         "title": "Door",
2999         "definitions": {
3000             "oic.r.door": {
3001                 "type": "object",
3002                 "properties": {
3003                     "openState": {
3004                         "enum": ["Open", "Closed"],
3005                         "readOnly": true,
3006                         "description": "The state of the door (open or closed)"
3007                     },
3008                     "openDuration": {
3009                         "type": "string",
3010                         "readOnly": true,
3011                         "description": "The time duration the door has been open"
3012                     },
3013                     "openAlarm": {
3014                         "type": "boolean",
3015                         "description": "The state of the door open alarm"
3016                     }
3017                 }
3018             }
3019         },
3020         "type": "object",
3021         "allOf": [
3022             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
3023             { "$ref": "#/definitions/oic.r.door" }
3024         ],
3025         "required": ["openState"]
3026     }
3027
3028     example: /
3029     {
3030         "rt" :          ["oic.r.door"],
3031         "id":           "unique_example_id",
3032         "openState":    "Open",
3033         "openDuration": "POY0M0DT2H25M5S",
3034         "openAlarm":    true
3035     }
3036
3037     post:
3038         description: |
3039             Sets the current Door properties.
3040             The only property that can be set as part of an update operation is
3041             the openAlarm.
3042             This can be made active (true) or inactive (false)
3043
3044     is : ['interface-actuator']
3045     body:
3046         application/json:
3047             schema: /
3048             {
3049                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.door-Update.json#",
3050                 "$schema": "http://json-schema.org/draft-04/schema#",
3051                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
3052 reserved.",
3053                 "title": "Door",
3054                 "definitions": {
3055                     "oic.r.door": {
3056                         "type": "object",
3057                         "properties": {
3058                             "openAlarm": {
3059                                 "type": "boolean",
3060                                 "description": "The state of the door open alarm"
3061                             }
3062                         }
3063                     }
3064                 }

```

```

3063     }
3064   },
3065   "type": "object",
3066   "allOf": [
3067     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3068     {"$ref": "#/definitions/oic.r.door"}
3069   ]
3070 }
3071
3072 example: /
3073 {
3074   "id":          "unique_example_id",
3075   "openAlarm":   false
3076 }
3077
3078 responses :
3079   200:
3080     body:
3081       application/json:
3082         schema: /
3083           {
3084             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.door-Update.json#",
3085             "$schema": "http://json-schema.org/draft-04/schema#",
3086             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3087 rights reserved.",
3088             "title": "Door",
3089             "definitions": {
3090               "oic.r.door": {
3091                 "type": "object",
3092                 "properties": {
3093                   "openAlarm": {
3094                     "type": "boolean",
3095                     "description": "The state of the door open alarm"
3096                   }
3097               }
3098             },
3099             "type": "object",
3100             "allOf": [
3101               {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3102               {"$ref": "#/definitions/oic.r.door"}
3103             ]
3104           }
3105         }
3106
3107     example: /
3108     {
3109       "id":          "unique_example_id",
3110       "openAlarm":   false
3111     }
3112

```

### 6.10.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
openDuration	string		Read Only	The time duration the door has been open
openAlarm	boolean			The state of the door open alarm
openState	multiple types: see schema	yes	Read Only	The state of the door (open or closed)

## 6.10.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/DoorResURI		get	post		

## 6.11 Energy Consumption

### 6.11.1 Introduction

This resource describes the energy consumed by the device since power up (the energy value is in Watt Hours [Wh]) and the instantaneous power draw of the device (the power value is in Watts [W]) at the time the resource was queried. The power value is in Watts [W]. The energy value is in Watt Hours [Wh].

### 6.11.2 Example URI

/EnergyConsumptionResURI

### 6.11.3 Resource Type

The resource type (rt) is defined as: oic.r.energy.consumption.

### 6.11.4 RAML Definition

```
##RAML 0.8
title: OICEnergyConsumption
version: v1.1.0-20160519

traits:
  - interface :
      queryParameters:
          if:
              enum: ["oic.if.s", "oic.if.baseline"]

/energyconsumptionresuri:
  description: |
    This resource describes the energy consumed by the device since power up (the energy value is
    in Watt Hours [Wh])
    and the instantaneous power draw of the device (the power value is in Watts [W]) at the time
    the resource was queried.
    The power value is in Watts [W].
    The energy value is in Watt Hours [Wh].

  is : ['interface']

  get:
    description: |
      Provides the current power draw and cumulative energy usage.

    responses :
      200:
        body:
          application/json:
            schema: /
              {
                "id":
                  "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.consumption.json#",
                "$schema": "http://json-schema.org/draft-04/schema#",
                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                "title": "Energy Consumption",
                "definitions": {
                  "oic.r.energy.consumption": {
                    "type": "object",
                    "properties": {
                      "power": {
```

```

3166         "type": "number",
3167         "readOnly": true,
3168         "description": "Instantaneous Power"
3169     },
3170     "energy": {
3171         "type": "number",
3172         "readOnly": true,
3173         "description": "Energy consumed"
3174     }
3175 },
3176 "type": "object",
3177 "allOf": [
3178     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3179     {"$ref": "#/definitions/oic.r.energy.consumption"}
3180 ],
3181 "required": ["power", "energy"]
3182 }
3183
3184
3185 example: /
3186 {
3187     "rt": ["oic.r.energy.consumption"],
3188     "id": "unique_example_id",
3189     "power": 2000.1,
3190     "energy": 3500.4
3191 }
3192

```

### 6.11.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
energy	number	yes	Read Only	Energy consumed
power	number	yes	Read Only	Instantaneous Power

### 6.11.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/EnergyConsumptionResURI		get			

## 6.12 Energy Usage

### 6.12.1 Introduction

This resource describes a cumulative time-based energy usage query.. The resource is a composite resource being made up as a collection of: TimePeriod Resource EnergyConsumption Resource

### 6.12.2 Example URI

/EnergyUsageResURI

### 6.12.3 Resource Type

The resource type (rt) is defined as: oic.r.energy.usage.

### 6.12.4 RAML Definition

```

3205 #%RAML 0.8
3206 title: OICEnergyUsage
3207 version: v1.1.0-20160519
3208 traits:
3209   - interface :
3210       queryParameters:
3211         if:
3212             enum: ["oic.if.ll", "oic.if.b", "oic.if.baseline"]

```

```

3214 /EnergyUsageResURI:
3215     description: |
3216         This resource describes a cumulative time-based energy usage query..
3217         The resource is a composite resource being made up as a collection of:
3218             TimePeriod Resource
3219             EnergyConsumption Resource
3220
3221     is : ['interface']
3222
3223     get:
3224         description: |
3225             Retrieves the energy usage information as a composite of consumption over time.
3226
3227     responses :
3228         200:
3229             body:
3230                 application/json:
3231                     schema: /
3232                         {
3233                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.usage.json#",
3234                             "$schema": "http://json-schema.org/draft-04/schema#",
3235                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
3236                             "title": "Energy Usage",
3237                             "definitions": {
3238                                 "oic.r.energy.usage": {
3239                                     "type": "object",
3240                                     "properties": {
3241                                         "resources": {
3242                                             "type": "array",
3243                                             "minItems": 2,
3244                                             "maxItems": 2,
3245                                             "items": {
3246                                                 "$ref": "oic.oic-link-schema.json#/definitions/oic.oic-link"
3247                                             }
3248                                         }
3249                                     }
3250                                 },
3251                                 "type": "object",
3252                                 "allof": [
3253                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3254                                     {"$ref": "#/definitions/oic.r.energy.usage"}
3255                                 ],
3256                                 "required": ["resources"]
3257                             }
3258
3259
3260     example: /
3261         {
3262             "rt": ["oic.r.energy.usage"],
3263             "id": "unique_example_id",
3264             "resources": [
3265                 {
3266                     "href": "/TimeIntervalResURI",
3267                     "rel": "contains",
3268                     "rt": ["oic.r.time.period"],
3269                     "if": ["oic.if.a"],
3270                     "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
3271                 },
3272                 {
3273                     "href": "/EnergyConsumptionResURI",
3274                     "rel": "contains",
3275                     "rt": ["oic.r.energy.consumption"],
3276                     "if": ["oic.if.s"],
3277                     "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
3278                 }

```

```

3279         ]
3280     }
3281

```

## 3282 6.12.5 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/EnergyUsageResURI		get			

## 3283 6.13 Humidity

### 3284 6.13.1 Introduction

3285 This resource describes a sensed or desired humidity. The value humidity is an integer describing  
 3286 the percentage measured relative humidity. The value desiredHumidity is an integer showing the  
 3287 desired target relative humidity.

### 3288 6.13.2 Example URI

3289 /HumidityResURI

### 3290 6.13.3 Resource Type

3291 The resource type (rt) is defined as: oic.r.humidity.

### 3292 6.13.4 RAML Definition

```

3293 #%RAML 0.8
3294 title: OICHumidity
3295 version: v1.1.0-20160519
3296 traits:
3297   - interface :
3298       queryParameters:
3299         if:
3300           enum: ["oic.if.a", "oic.if.s", "oic.if.baseline"]
3301
3302 /HumidityResURI:
3303   description: |
3304     This resource describes a sensed or desired humidity.
3305     The value humidity is an integer describing the percentage measured relative humidity.
3306     The value desiredHumidity is an integer showing the desired target relative humidity.
3307
3308   is : ['interface']
3309   get:
3310     description: |
3311       Retrieves the current (relative) humidity level.
3312
3313   responses :
3314     200:
3315       body:
3316         application/json:
3317           schema: /
3318             {
3319               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.humidity.json#",
3320               "$schema": "http://json-schema.org/draft-04/schema#",
3321               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3322 rights reserved.",
3323               "title": "Humidity",
3324               "definitions": {
3325                 "oic.r.humidity": {
3326                   "type": "object",
3327                   "properties": {
3328                     "humidity": {
3329                       "type": "integer",

```



```

3330         "readOnly": true,
3331         "description": "Current sensed value for Humidity"
3332     },
3333     "desiredHumidity": {
3334         "type": "integer",
3335         "description": "Desired value for Humidity"
3336     }
3337 }
3338 }
3339 },
3340 "type": "object",
3341 "allOf": [
3342     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3343     {"$ref": "#/definitions/oic.r.humidity"}
3344 ],
3345 "required": ["humidity"]
3346 }
3347
3348 example: /
3349 {
3350     "rt": ["oic.r.humidity"],
3351     "id": "unique_example_id",
3352     "humidity": 40,
3353     "desiredHumidity": 40
3354 }
3355
3356 post:
3357     description: |
3358         Sets the desired relative humidity level.
3359
3360     body:
3361         application/json:
3362             schema: /
3363                 {
3364                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.humidity-Update.json#",
3365                     "$schema": "http://json-schema.org/draft-04/schema#",
3366                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
3367 reserved.",
3368                     "title": "Humidity",
3369                     "definitions": {
3370                         "oic.r.humidity": {
3371                             "type": "object",
3372                             "properties": {
3373                                 "desiredHumidity": {
3374                                     "type": "integer",
3375                                     "description": "Desired value for Humidity"
3376                                 }
3377                             }
3378                         }
3379                     },
3380                     "type": "object",
3381                     "allOf": [
3382                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3383                         {"$ref": "#/definitions/oic.r.humidity"}
3384                     ]
3385                 }
3386
3387             example: /
3388                 {
3389                     "id": "unique_example_id",
3390                     "desiredHumidity": 45
3391                 }
3392
3393     responses:
3394         200:

```

```

3395     description: |
3396         Indicates that the relative humidity level was changed.
3397         The new relative humidity level is provided in the response.
3398
3399     body:
3400         application/json:
3401             schema: /
3402                 {
3403                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.humidity-
3404 Update.json#",
3405                     "$schema": "http://json-schema.org/draft-04/schema#",
3406                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3407 rights reserved.",
3408                     "title": "Humidity",
3409                     "definitions": {
3410                         "oic.r.humidity": {
3411                             "type": "object",
3412                             "properties": {
3413                                 "desiredHumidity": {
3414                                     "type": "integer",
3415                                     "description": "Desired value for Humidity"
3416                                 }
3417                             }
3418                         }
3419                     },
3420                     "type": "object",
3421                     "allOf": [
3422                         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
3423                         { "$ref": "#/definitions/oic.r.humidity" }
3424                     ]
3425                 }
3426
3427             example: /
3428                 {
3429                     "id": "unique_example_id",
3430                     "desiredHumidity": 45
3431                 }
3432

```

### 3433 6.13.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
desiredHumidity	integer			Desired value for Humidity
humidity	integer	yes	Read Only	Current sensed value for Humidity

### 3434 6.13.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/HumidityResURI		get	post		

## 3435 6.14 Ice Maker

### 3436 6.14.1 Introduction

3437 This resource describes an the operational state of an Ice Maker. The status is a string containing  
3438 a value from the set of possible ice maker statuses. The possible statuses are defined by the  
3439 enumeration [on, off, full] A status of 'on' means that the Ice Maker is operating. A status of 'off'  
3440 means that the Ice Maker is not operating. A status of 'full' means that the ice collection bin is full  
3441 (Ice Maker is operating).

### 3442 6.14.2 Example URI

3443 /IceMakerResURI

### 6.14.3 Resource Type

The resource type (rt) is defined as: oic.r.icemaker.

### 6.14.4 RAML Definition

```
3447 ##RAML 0.8
3448 title: OICIceMaker
3449 version: v1.1.0-20160519
3450 traits:
3451   - interface :
3452     queryParameters:
3453       if:
3454         enum: ["oic.if.a", "oic.if.baseline"]
3455
3456 /IceMakerResURI:
3457   description: |
3458     This resource describes an the operational state of an Ice Maker.
3459     The status is a string containing a value from the set of possible ice maker statuses.
3460     The possible statuses are defined by the enumeration [on, off, full]
3461     A status of 'on' means that the Ice Maker is operating.
3462     A status of 'off' means that the Ice Maker is not operating.
3463     A status of 'full' means that the ice collection bin is full (Ice Maker is operating).
3464
3465   is : ['interface']
3466   get:
3467     description: |
3468       Retrieves the current Ice Maker status.
3469
3470   responses :
3471     200:
3472       body:
3473         application/json:
3474           schema: /
3475             {
3476               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.iceMaker.json#",
3477               "$schema": "http://json-schema.org/draft-04/schema#",
3478               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3479 rights reserved.",
3480               "title": "Ice Maker",
3481               "definitions": {
3482                 "oic.r.iceMaker": {
3483                   "type": "object",
3484                   "properties": {
3485                     "status": {
3486                       "enum": ["on","off","full"],
3487                       "description": "Status of the Ice Maker"
3488                     }
3489                   }
3490                 }
3491               },
3492               "type": "object",
3493               "allOf": [
3494                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3495                 { "$ref": "#/definitions/oic.r.iceMaker" }
3496               ],
3497               "required": ["status"]
3498             }
3499
3500   example: /
3501     {
3502       "rt":      ["oic.r.icemaker"],
```

```

3503         "id": "unique_example_id",
3504         "status": "on"
3505     }
3506
3507     post:
3508         description: |
3509             Sets the desired Ice Maker status.
3510             Only valid settings for status in a Post shall be [on,off].
3511
3512     body:
3513         application/json:
3514             schema: /
3515                 {
3516                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.iceMaker-Update.json#",
3517                     "$schema": "http://json-schema.org/draft-04/schema#",
3518                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
3519 reserved.",
3520                     "title": "Ice Maker",
3521                     "definitions": {
3522                         "oic.r.icemaker": {
3523                             "type": "object",
3524                             "properties": {
3525                                 "status": {
3526                                     "enum": ["on","off"],
3527                                     "description": "Set the status of the Ice Maker"
3528                                 }
3529                             }
3530                         }
3531                     },
3532                     "type": "object",
3533                     "allOf": [
3534                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3535                         {"$ref": "#/definitions/oic.r.icemaker"}
3536                     ],
3537                     "required": ["status"]
3538                 }
3539
3540             example: /
3541                 {
3542                     "id": "unique_example_id",
3543                     "status": "off"
3544                 }
3545
3546     responses :
3547         200:
3548             description: |
3549                 Indicates that the Ice Maker status was changed.
3550                 The new status is provided in the response.
3551
3552             body:
3553                 application/json:
3554                     schema: /
3555                         {
3556                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.iceMaker-
3557 Update.json#",
3558                             "$schema": "http://json-schema.org/draft-04/schema#",
3559                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3560 rights reserved.",
3561                             "title": "Ice Maker",
3562                             "definitions": {
3563                                 "oic.r.icemaker": {
3564                                     "type": "object",
3565                                     "properties": {
3566                                         "status": {

```

```

3567         "enum": ["on","off"],
3568         "description": "Set the status of the Ice Maker"
3569     }
3570 }
3571 }
3572 },
3573 "type": "object",
3574 "allOf": [
3575     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3576     {"$ref": "#/definitions/oic.r.icemaker"}
3577 ],
3578 "required": ["status"]
3579 }
3580
3581 example: /
3582 {
3583     "id": "unique_example_id",
3584     "status": "off"
3585 }
3586
3587 403:
3588 description: |
3589     This response is generated by the OIC Server when the client sends:
3590     An update with an invalid property value for status.
3591     The server responds with the current resource representation.
3592
3593 body:
3594     application/json:
3595         schema: /
3596         {
3597             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.iceMaker-
3598 Update.json#",
3599             "$schema": "http://json-schema.org/draft-04/schema#",
3600             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3601 rights reserved.",
3602             "title": "Ice Maker",
3603             "definitions": {
3604                 "oic.r.icemaker": {
3605                     "type": "object",
3606                     "properties": {
3607                         "status": {
3608                             "enum": ["on","off"],
3609                             "description": "Set the status of the Ice Maker"
3610                         }
3611                     }
3612                 }
3613             },
3614             "type": "object",
3615             "allOf": [
3616                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3617                 {"$ref": "#/definitions/oic.r.icemaker"}
3618             ],
3619             "required": ["status"]
3620         }
3621
3622         example: /
3623         {
3624             "id": "unique_example_id",
3625             "status": "off"
3626         }
3627

```

#### 3628 6.14.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

status	multiple types: see schema	yes		Status of the Ice Maker
--------	-------------------------------	-----	--	----------------------------

#### 6.14.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/IceMakerResURI		get	post		

### 6.15 Lock

#### 6.15.1 Introduction

Resource describing a lock. For the type of lockState, the value 'Locked' indicates that the door is Locked. The value 'Unlocked' indicates that the door is Unlocked.

#### 6.15.2 Example URI

/LockStatusResURI

#### 6.15.3 Resource Type

The resource type (rt) is defined as: oic.r.lock.status.

#### 6.15.4 RAML Definition

```

#%RAML 0.8

title: OICLock
version: v1.1.0-20160519

traits:
  - interface :
      queryParameters:
        if:
          enum: ["oic.if.a", "oic.if.baseline"]

/LockStatusResURI:

  description: |
    Resource describing a lock.
    For the type of lockState, the value 'Locked' indicates that the door is Locked.
    The value 'Unlocked' indicates that the door is Unlocked.

  is : ['interface']

  get:

    description: |
      Retrieves the state of the lock.

    responses :
      200:
        body:
          application/json:
            schema: /
              {
                "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.status.json#",
                "$schema": "http://json-schema.org/draft-04/schema#",
                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                "title": "Lock",
                "definitions": {
                  "oic.r.lock.status": {
                    "type": "object",
                    "properties": {
                      "lockState" : {
                        "type": "string",
                        "enum": ["Locked", "Unlocked"],
                        "description": "State of the lock."

```

```

3678         }
3679     }
3680 }
3681 },
3682 "type": "object",
3683 "allOf": [
3684     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3685     {"$ref": "#/definitions/oic.r.lock.status"}
3686 ],
3687 "required": ["lockState"]
3688 }
3689
3690 example: /
3691 {
3692     "rt":          ["oic.r.lock.status"],
3693     "id":          "unique_example_id",
3694     "lockState":   "Locked"
3695 }
3696
3697 post:
3698     description: |
3699         Sets the current lock state.
3700
3701 body:
3702     application/json:
3703         schema: /
3704             {
3705                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.status.json#",
3706                 "$schema": "http://json-schema.org/draft-04/schema#",
3707                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
3708 reserved.",
3709                 "title": "Lock",
3710                 "definitions": {
3711                     "oic.r.lock.status": {
3712                         "type": "object",
3713                         "properties": {
3714                             "lockState" : {
3715                                 "type": "string",
3716                                 "enum": ["Locked", "Unlocked"],
3717                                 "description": "State of the lock."
3718                             }
3719                         }
3720                     }
3721                 },
3722                 "type": "object",
3723                 "allOf": [
3724                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
3725                     {"$ref": "#/definitions/oic.r.lock.status"}
3726                 ],
3727                 "required": ["lockState"]
3728             }
3729
3730         example: /
3731             {
3732                 "id":          "unique_example_id",
3733                 "lockState":   "Unlocked"
3734             }
3735
3736 responses :
3737     200:
3738         body:
3739             application/json:
3740                 schema: /

```

```

3741     {
3742         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.status.json#",
3743         "$schema": "http://json-schema.org/draft-04/schema#",
3744         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3745 rights reserved.",
3746         "title": "Lock",
3747         "definitions": {
3748             "oic.r.lock.status": {
3749                 "type": "object",
3750                 "properties": {
3751                     "lockState" : {
3752                         "type": "string",
3753                         "enum": ["Locked", "Unlocked"],
3754                         "description": "State of the lock."
3755                     }
3756                 }
3757             }
3758         },
3759         "type": "object",
3760         "allOf": [
3761             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
3762             { "$ref": "#/definitions/oic.r.lock.status" }
3763         ],
3764         "required": ["lockState"]
3765     }
3766
3767     example: /
3768     {
3769         "id": "unique_example_id",
3770         "lockState": "Unlocked"
3771     }
3772
3773 403:
3774     description: |
3775         This response is generated by the OIC Server when the client sends:
3776         An update with an invalid property value for lockState.
3777         The server responds with the current resource representation.
3778
3779     body:
3780         application/json:
3781             schema: /
3782             {
3783                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.status.json#",
3784                 "$schema": "http://json-schema.org/draft-04/schema#",
3785                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3786 rights reserved.",
3787                 "title": "Lock",
3788                 "definitions": {
3789                     "oic.r.lock.status": {
3790                         "type": "object",
3791                         "properties": {
3792                             "lockState" : {
3793                                 "type": "string",
3794                                 "enum": ["Locked", "Unlocked"],
3795                                 "description": "State of the lock."
3796                             }
3797                         }
3798                     }
3799                 },
3800                 "type": "object",
3801                 "allOf": [
3802                     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
3803                     { "$ref": "#/definitions/oic.r.lock.status" }
3804                 ],
3805                 "required": ["lockState"]
3806             }
3807

```



```

3808         example: /
3809         {
3810             "lockState": "Unlocked"
3811         }
3812

```

### 3813 6.15.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
lockState	string	yes		State of the lock.

### 3814 6.15.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/LockStatusResURI		get	post		

## 3815 6.16 Lock Code

### 3816 6.16.1 Introduction

3817 Resource describing a lock code. The lockCodeList is an array of possible codes that may be  
3818 associated with a lock. These are all presented as strings.

### 3819 6.16.2 Example URI

3820 /LockCodeResURI

### 3821 6.16.3 Resource Type

3822 The resource type (rt) is defined as: oic.r.lock.code.

### 3823 6.16.4 RAML Definition

```

3824 #%RAML 0.8
3825 title: OICLockCode
3826 version: v1.1.0-20160519
3827 traits:
3828   - interface :
3829       queryParameters:
3830         if:
3831           enum: ["oic.if.a", "oic.if.baseline"]
3832
3833 /LockCodeResURI:
3834   description: |
3835     Resource describing a lock code.
3836     The lockCodeList is an array of possible codes that may be associated with a lock.
3837     These are all presented as strings.
3838
3839   is : ['interface']
3840   get:
3841     description: |
3842       Retrieves the current lock code values.
3843
3844   responses :
3845     200:
3846       body:
3847         application/json:
3848           schema: /
3849           {
3850             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.code.json#",
3851             "$schema": "http://json-schema.org/draft-04/schema#",
3852             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
3853 rights reserved.",
3854             "title": "Lock Code",

```

```

3855         "definitions": {
3856             "oic.r.lock.code": {
3857                 "type": "object",
3858                 "properties": {
3859                     "lockCodeList" : {
3860                         "type": "array",
3861                         "items": {
3862                             "type": "string",
3863                             "description": "Value for the lock code"
3864                         }
3865                     }
3866                 }
3867             },
3868             "type": "object",
3869             "allOf": [
3870                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
3871                 { "$ref": "#/definitions/oic.r.lock.code" }
3872             ],
3873             "required": ["lockCodeList"]
3874         }
3875     }
3876
3877     example: /
3878     {
3879         "rt": ["oic.r.lock.code"],
3880         "id": "unique_example_id",
3881         "lockCodeList": ["012345", "112233"]
3882     }
3883
3884     post:
3885         description: |
3886             Updates the current lock code values.
3887
3888     body:
3889         application/json:
3890             schema: /
3891             {
3892                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.code.json#",
3893                 "$schema": "http://json-schema.org/draft-04/schema#",
3894                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
3895 reserved.",
3896                 "title": "Lock Code",
3897                 "definitions": {
3898                     "oic.r.lock.code": {
3899                         "type": "object",
3900                         "properties": {
3901                             "lockCodeList" : {
3902                                 "type": "array",
3903                                 "items": {
3904                                     "type": "string",
3905                                     "description": "Value for the lock code"
3906                                 }
3907                             }
3908                         }
3909                     }
3910                 },
3911                 "type": "object",
3912                 "allOf": [
3913                     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
3914                     { "$ref": "#/definitions/oic.r.lock.code" }
3915                 ],
3916                 "required": ["lockCodeList"]
3917             }
3918
3919     example: /

```

```

3920     {
3921         "id": "unique_example_id",
3922         "lockCodeList": ["543210", "332211"]
3923     }
3924
3925     responses :
3926         200:
3927             body:
3928                 application/json:
3929                     schema: /
3930                         {
3931                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.lock.code.json#",
3932                             "$schema": "http://json-schema.org/draft-04/schema#",
3933                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
3934                             "title": "Lock Code",
3935                             "definitions": {
3936                                 "oic.r.lock.code": {
3937                                     "type": "object",
3938                                     "properties": {
3939                                         "lockCodeList" : {
3940                                             "type": "array",
3941                                             "items": {
3942                                                 "type": "string",
3943                                                 "description": "Value for the lock code"
3944                                             }
3945                                         }
3946                                     }
3947                                 }
3948                             },
3949                             "type": "object",
3950                             "allOf": [
3951                                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
3952                                 { "$ref": "#/definitions/oic.r.lock.code" }
3953                             ],
3954                             "required": ["lockCodeList"]
3955                         }
3956
3957
3958         example: /
3959             {
3960                 "id": "unique_example_id",
3961                 "lockCodeList": ["543210", "332211"]
3962             }
3963

```

### 6.16.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
lockCodeList	array: see schema	yes		

### 6.16.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/LockCodeResURI		get	post		

## 6.17 Mode

### 6.17.1 Introduction

This resource describes the modes of operation that a device can provide. The mode can be read or set. The supportedModes is an array of possible modes the device supports. The modes are an array of the currently active mode(s).

### 6.17.2 Example URI

/ModeResURI

### 6.17.3 Resource Type

The resource type (rt) is defined as: oic.r.mode.

### 6.17.4 RAML Definition

```
##RAML 0.8
title: OICMode
version: v1.1.0-20160519

traits:
  - interface :
      queryParameters:
          if:
              enum: ["oic.if.a", "oic.if.baseline"]

/ModeResURI:
  description: |
    This resource describes the modes of operation that a device can provide.
    The mode can be read or set.
    The supportedModes is an array of possible modes the device supports.
    The modes are an array of the currently active mode(s).

  is : ['interface']

  get:
    description: |
      Retrieves the current mode.

    responses :
      200:
        body:
          application/json:
            schema: /
              {
                "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mode.json#",
                "$schema": "http://json-schema.org/draft-04/schema#",
                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                "title": "Mode",
                "definitions": {
                  "oic.r.mode": {
                    "type": "object",
                    "properties": {
                      "supportedModes": {
                        "type": "array",
                        "readOnly": true,
                        "description": "Array of possible modes the device supports.",
                        "items": {
                          "type": "string"
                        }
                      }
                    },
                    "modes": {
                      "type": "array",
                      "description": "Array of the currently active mode(s)",
                      "items": {
                        "type": "string"
                      }
                    }
                  }
                }
              },
            "type": "object",
            "allof": [
              {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
              {"$ref": "#/definitions/oic.r.mode"}
            ]
          }
        }
      }
    }
  }
}
```

```

4034         ],
4035         "required": ["supportedModes", "modes"]
4036     }
4037
4038     example: /
4039     {
4040         "rt":          ["oic.r.mode"],
4041         "id":          "unique_example_id",
4042         "supportedModes": ["active", "armedAway", "armedStay", "armedInstant"],
4043         "modes":       ["active"]
4044     }
4045
4046     post:
4047         description: |
4048             Sets the desired mode.
4049
4050         body:
4051             application/json:
4052                 schema: /
4053                 {
4054                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mode-Update.json#",
4055                     "$schema": "http://json-schema.org/draft-04/schema#",
4056                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
4057 reserved.",
4058                     "title": "Mode",
4059                     "definitions": {
4060                         "oic.r.mode": {
4061                             "type": "object",
4062                             "properties": {
4063                                 "modes": {
4064                                     "type": "array",
4065                                     "description": "Desired mode",
4066                                     "items": {
4067                                         "type": "string"
4068                                     }
4069                                 }
4070                             }
4071                         }
4072                     },
4073                     "type": "object",
4074                     "allOf": [
4075                         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
4076                         { "$ref": "#/definitions/oic.r.mode" }
4077                     ],
4078                     "required": ["modes"]
4079                 }
4080
4081                 example: /
4082                 {
4083                     "id": "unique_example_id",
4084                     "modes": ["armedAway"]
4085                 }
4086
4087     responses :
4088         200:
4089             body:
4090                 application/json:
4091                     schema: /
4092                     {
4093                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mode-Update.json#",
4094                         "$schema": "http://json-schema.org/draft-04/schema#",
4095                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4096 rights reserved.",

```

```

4097         "title": "Mode",
4098         "definitions": {
4099             "oic.r.mode": {
4100                 "type": "object",
4101                 "properties": {
4102                     "modes": {
4103                         "type": "array",
4104                         "description": "Desired mode",
4105                         "items": {
4106                             "type": "string"
4107                         }
4108                     }
4109                 }
4110             }
4111         },
4112         "type": "object",
4113         "allOf": [
4114             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4115             {"$ref": "#/definitions/oic.r.mode"}
4116         ],
4117         "required": ["modes"]
4118     }
4119
4120     example: /
4121     {
4122         "id": "unique_example_id",
4123         "modes": ["armedAway"]
4124     }
4125
4126 403:
4127     description: |
4128         This response is generated by the OIC Server when the client sends:
4129         An update with an value for mode that is not found in supportedModes.
4130         The server responds with the current resource representation.
4131
4132     body:
4133         application/json:
4134             schema: /
4135             {
4136                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mode.json#",
4137                 "$schema": "http://json-schema.org/draft-04/schema#",
4138                 "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4139 rights reserved.",
4140                 "title": "Mode",
4141                 "definitions": {
4142                     "oic.r.mode": {
4143                         "type": "object",
4144                         "properties": {
4145                             "supportedModes": {
4146                                 "type": "array",
4147                                 "readOnly": true,
4148                                 "description": "Array of possible modes the device supports.",
4149                                 "items": {
4150                                     "type": "string"
4151                                 }
4152                             },
4153                             "modes": {
4154                                 "type": "array",
4155                                 "description": "Array of the currently active mode(s)",
4156                                 "items": {
4157                                     "type": "string"
4158                                 }
4159                             }
4160                         }
4161                     }
4162                 },
4163                 "type": "object",

```

```

4164         "allOf": [
4165             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
4166             { "$ref": "##/definitions/oic.r.mode" }
4167         ],
4168         "required": [ "supportedModes", "modes" ]
4169     }
4170
4171     example: /
4172     {
4173         "id": "unique_example_id",
4174         "supportedModes": [ "active", "armedAway", "armedStay", "armedInstant" ],
4175         "modes": [ "active" ]
4176     }
4177

```

## 6.17.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
supportedModes	array: see schema	yes	Read Only	Array of possible modes the device supports.
modes	array: see schema	yes		Array of the currently active mode(s)

## 6.17.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/ModeResURI		get	post		

## 6.18 Open Level

### 6.18.1 Introduction

This resource describes how open or ajar an entity such as a window, door, blind or shutter is. The openLevel can be read (acting as a sensor). The openLevel can also be set (acting as an actuator). The openLevel is device dependent across the range provided. When range (from oic.r.baseresource) is omitted then 0 to 100 is assumed where 0 means closed, 100 means fully open. If a range is provided then the lower bound=closed, upper bound=open. If step (from oic.r.baseresource) is present then it represents the increment between possible values; if not provided 1 is assumed.

### 6.18.2 Example URI

/OpenLevelResURI

### 6.18.3 Resource Type

The resource type (rt) is defined as: oic.r.openlevel.

### 6.18.4 RAML Definition

```

4194 #%RAML 0.8
4195 title: OICOpenLevel
4196 version: v1.1.0-20160519
4197 traits:
4198   - interface :
4199       queryParameters:
4200         if:
4201             enum: [ "oic.if.a", "oic.if.baseline" ]
4202
4203 /OpenLevelResURI:
4204     description: |
4205         This resource describes how open or ajar an entity such as a window, door, blind or shutter is.
4206         The openLevel can be read (acting as a sensor).

```

```

4207     The openLevel can also be set (acting as an actuator).
4208     The openLevel is device dependent across the range provided.
4209     When range (from oic.r.baseresource) is omitted then 0 to 100 is assumed where 0 means closed,
4210 100 means fully open.
4211     If a range is provided then the lower bound=closed, upper bound=open.
4212     If step (from oic.r.baseresource) is present then it represents the increment between possible
4213 values; if not provided 1 is assumed.
4214
4215     is : ['interface']
4216
4217     get:
4218         description: |
4219             Retrieves the current openLevel.
4220
4221     responses :
4222         200:
4223             body:
4224                 application/json:
4225                     schema: /
4226                         {
4227                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.openLevel.json#",
4228                             "$schema": "http://json-schema.org/draft-04/schema#",
4229                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
4230                             "title": "Open Level",
4231                             "definitions": {
4232                                 "oic.r.openlevel": {
4233                                     "type": "object",
4234                                     "properties": {
4235                                         "openLevel": {
4236                                             "type": "integer",
4237                                             "description": "How open or ajar the entity is"
4238                                         },
4239                                         "increment": {
4240                                             "type": "integer",
4241                                             "description": "Deprecated, use 'step' instead.",
4242                                             "readOnly": true
4243                                         }
4244                                     }
4245                                 },
4246                                 "type": "object",
4247                                 "allOf": [
4248                                     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
4249                                     { "$ref": "#/definitions/oic.r.openlevel" }
4250                                 ],
4251                                 "required": ["openLevel"]
4252                             }
4253
4254
4255     example: /
4256         {
4257             "rt":          ["oic.r.openlevel"],
4258             "id":          "unique_example_id",
4259             "openLevel":   50,
4260             "step":        2,
4261             "range":       [0,100]
4262         }
4263
4264     post:
4265         description: |
4266             Sets the desired openLevel.
4267
4268         body:
4269             application/json:

```



```

4270     schema: /
4271     {
4272         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.openLevel.json#",
4273         "$schema": "http://json-schema.org/draft-04/schema#",
4274         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
4275 reserved.",
4276         "title": "Open Level",
4277         "definitions": {
4278             "oic.r.openlevel": {
4279                 "type": "object",
4280                 "properties": {
4281                     "openLevel": {
4282                         "type": "integer",
4283                         "description": "How open or ajar the entity is"
4284                     },
4285                     "increment": {
4286                         "type": "integer",
4287                         "description": "Deprecated, use 'step' instead.",
4288                         "readOnly": true
4289                     }
4290                 }
4291             }
4292         },
4293         "type": "object",
4294         "allOf": [
4295             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4296             {"$ref": "#/definitions/oic.r.openlevel"}
4297         ],
4298         "required": ["openLevel"]
4299     }
4300
4301     example: /
4302     {
4303         "id": "unique_example_id",
4304         "openLevel": 0
4305     }
4306
4307     responses :
4308         200:
4309             body:
4310                 application/json:
4311                     schema: /
4312                     {
4313                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.openLevel.json#",
4314                         "$schema": "http://json-schema.org/draft-04/schema#",
4315                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4316 rights reserved.",
4317                         "title": "Open Level",
4318                         "definitions": {
4319                             "oic.r.openlevel": {
4320                                 "type": "object",
4321                                 "properties": {
4322                                     "openLevel": {
4323                                         "type": "integer",
4324                                         "description": "How open or ajar the entity is"
4325                                     },
4326                                     "increment": {
4327                                         "type": "integer",
4328                                         "description": "Deprecated, use 'step' instead.",
4329                                         "readOnly": true
4330                                     }
4331                                 }
4332                             }
4333                         },
4334                         "type": "object",
4335                         "allOf": [
4336                             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},

```

```

4337         {"$ref": "#/definitions/oic.r.openlevel"}
4338     },
4339     "required": ["openLevel"]
4340 }
4341
4342     example: /
4343     {
4344         "id":          "unique_example_id",
4345         "openLevel":  0
4346     }
4347
4348     403:
4349     description: |
4350         This response is generated by the OIC Server when the client sends:
4351         An update with an out of range property value for openLevel.
4352         The server responds with the current resource representation.
4353
4354     body:
4355         application/json:
4356             schema: /
4357             {
4358                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.openLevel.json#",
4359                 "$schema": "http://json-schema.org/draft-04/schema#",
4360                 "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4361 rights reserved.",
4362                 "title": "Open Level",
4363                 "definitions": {
4364                     "oic.r.openlevel": {
4365                         "type": "object",
4366                         "properties": {
4367                             "openLevel": {
4368                                 "type": "integer",
4369                                 "description": "How open or ajar the entity is"
4370                             },
4371                             "increment": {
4372                                 "type": "integer",
4373                                 "description": "Deprecated, use 'step' instead.",
4374                                 "readOnly": true
4375                             }
4376                         }
4377                     }
4378                 },
4379                 "type": "object",
4380                 "allof": [
4381                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4382                     {"$ref": "#/definitions/oic.r.openlevel"}
4383                 ],
4384                 "required": ["openLevel"]
4385             }
4386
4387     example: /
4388     {
4389         "id":          "unique_example_id",
4390         "openLevel":  50,
4391         "step":        2,
4392         "range":       [0,100]
4393     }
4394

```

### 6.18.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
openLevel	integer	yes		How open or ajar the entity is

increment	integer		Read Only	Deprecated, use 'step' instead.
-----------	---------	--	-----------	---------------------------------

## 6.18.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/OpenLevelResURI		get	post		

## 6.19 Operational State

### 6.19.1 Introduction

This resource describes the operational and job states on a device. The states can be read or set, setting indicates a desired state. A device may reject an attempt to set a state that would result in adverse operational characteristics. The machineStates is an array of the possible operational states. The currentMachineState is the current state of operation of the device. The jobStates is an array of the possible job states. The currentJobState is the currently active jobState. The runningTime is the ISO8601 encoded elapsed time in the current operational state. The remainingTime is the ISO8601 encoded time till completion of the current operational state. The progressPercentage is the percentage completeness of the current jobState.

### 6.19.2 Example URI

/OperationalStateResURI

### 6.19.3 Resource Type

The resource type (rt) is defined as: oic.r.operational.state.

### 6.19.4 RAML Definition

```

#%RAML 0.8
title: OICOperation
version: v1.1.0-20160519

traits:
- interface :
    queryParameters:
        if:
            enum: ["oic.if.a", "oic.if.baseline"]

/OperationalStateResURI:
    description: |
        This resource describes the operational and job states on a device.
        The states can be read or set, setting indicates a desired state.
        A device may reject an attempt to set a state that would result
        in adverse operational characteristics.
        The machineStates is an array of the possible operational states.
        The currentMachineState is the current state of operation of the device.
        The jobStates is an array of the possible job states.
        The currentJobState is the currently active jobState.
        The runningTime is the ISO8601 encoded elapsed time in the current operational state.
        The remainingTime is the ISO8601 encoded time till completion of the current operational state.
        The progressPercentage is the percentage completeness of the current jobState.

    is : ['interface']
    get:
        description: |
            Retrieves the current operational and job states.

        responses :
            200:
                body:
                    application/json:

```

```

4444     schema: /
4445     {
4446         "id":
4447 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.operational.state.json#",
4448         "$schema": "http://json-schema.org/draft-04/schema#",
4449         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4450 rights reserved.",
4451         "title": "Operational State",
4452         "definitions": {
4453             "oic.r.operational.state": {
4454                 "type": "object",
4455                 "properties": {
4456                     "machineStates": {
4457                         "type": "array",
4458                         "readOnly": true,
4459                         "description": "array of the possible operational states.",
4460                         "items": {
4461                             "type": "string"
4462                         }
4463                     },
4464                     "currentMachineState": {
4465                         "type": "string",
4466                         "description": "Current state of operation of the device."
4467                     },
4468                     "jobStates": {
4469                         "type": "array",
4470                         "readOnly": true,
4471                         "description": "array of the possible job states.",
4472                         "items": {
4473                             "type": "string"
4474                         }
4475                     },
4476                     "currentJobState": {
4477                         "type": "string",
4478                         "description": "Currently active jobState"
4479                     },
4480                     "runningTime": {
4481                         "type": "string",
4482                         "readOnly": true,
4483                         "description": "Elapsed time in the current operational state"
4484                     },
4485                     "remainingTime": {
4486                         "type": "string",
4487                         "readOnly": true,
4488                         "description": "Time till completion of the current operational state"
4489                     },
4490                     "progressPercentage": {
4491                         "type": "integer",
4492                         "readOnly": true,
4493                         "description": "Percentage completeness of the current jobState"
4494                     }
4495                 }
4496             }
4497         },
4498         "type": "object",
4499         "allOf": [
4500             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
4501             { "$ref": "#/definitions/oic.r.operational.state" }
4502         ],
4503         "required": ["machineStates", "currentMachineState"]
4504     }
4505
4506     example: /
4507     {
4508         "rt": ["oic.r.operational.state"],
4509         "id": "unique_example_id",
4510         "machineStates": ["pause", "stopped", "idle", "active"],
4511         "currentMachineState": "active",
4512         "jobStates": ["preWash", "wash", "rinse", "spin", "dry", "airDry",

```

```

4513 "wrinklePrevent"],
4514     "currentJobState":      "rinse",
4515     "runningTime":         "PT15M20S",
4516     "remainingTime":       "PT10M40S",
4517     "progressPercentage":   75
4518   }
4519
4520   post:
4521     description: |
4522       Sets the desired operational or job state.
4523
4524     body:
4525       application/json:
4526         schema: /
4527           {
4528             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.operational.state-
4529 Update.json#",
4530             "$schema": "http://json-schema.org/draft-04/schema#",
4531             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
4532 reserved.",
4533             "title": "Operational State",
4534             "definitions": {
4535               "oic.r.operational.state": {
4536                 "type": "object",
4537                 "properties": {
4538                   "currentMachineState": {
4539                     "type": "string",
4540                     "description": "Current state of operation of the device."
4541                   },
4542                   "currentJobState": {
4543                     "type": "string",
4544                     "description": "Currently active jobState"
4545                   }
4546                 }
4547             },
4548             "type": "object",
4549             "allOf": [
4550               { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
4551               { "$ref": "#/definitions/oic.r.operational.state" }
4552             ]
4553           }
4554
4555     example: /
4556       {
4557         "id": "unique_example_id",
4558         "currentMachineState": "pause",
4559         "currentJobState": "wash"
4560       }
4561
4562   responses :
4563     200:
4564       body:
4565         application/json:
4566           schema: /
4567             {
4568               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.operational.state-
4569 Update.json#",
4570               "$schema": "http://json-schema.org/draft-04/schema#",
4571               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4572 rights reserved.",
4573               "title": "Operational State",
4574               "definitions": {
4575                 "oic.r.operational.state": {

```

```

4577         "type": "object",
4578         "properties": {
4579             "currentMachineState": {
4580                 "type": "string",
4581                 "description": "Current state of operation of the device."
4582             },
4583             "currentJobState": {
4584                 "type": "string",
4585                 "description": "Currently active jobState"
4586             }
4587         }
4588     },
4589     "type": "object",
4590     "allOf": [
4591         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4592         {"$ref": "#/definitions/oic.r.operational.state"}
4593     ]
4594 }
4595
4596
4597 example: /
4598 {
4599     "id": "unique_example_id",
4600     "currentMachineState": "pause",
4601     "currentJobState": "wash"
4602 }
4603
4604 403:
4605     description: |
4606         This response is generated by the OIC Server when the client sends:
4607         An update with an value for currentMachineState that is not found in machineStates.
4608         An update with an value for currentJobState that is not found in jobStates.
4609         The server responds with the current resource representation.
4610
4611     body:
4612         application/json:
4613             schema: /
4614                 {
4615                     "id":
4616 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.operational.state.json#",
4617                     "$schema": "http://json-schema.org/draft-04/schema#",
4618                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4619 rights reserved.",
4620                     "title": "Operational State",
4621                     "definitions": {
4622                         "oic.r.operational.state": {
4623                             "type": "object",
4624                             "properties": {
4625                                 "machineStates": {
4626                                     "type": "array",
4627                                     "readOnly": true,
4628                                     "description": "array of the possible operational states.",
4629                                     "items": {
4630                                         "type": "string"
4631                                     }
4632                                 },
4633                                 "currentMachineState": {
4634                                     "type": "string",
4635                                     "description": "Current state of operation of the device."
4636                                 },
4637                                 "jobStates": {
4638                                     "type": "array",
4639                                     "readOnly": true,
4640                                     "description": "array of the possible job states.",
4641                                     "items": {
4642                                         "type": "string"
4643                                     }
4644                                 }
4645                             }
4646                         }
4647                     }
4648                 }

```

```

4644     },
4645     "currentJobState": {
4646       "type": "string",
4647       "description": "Currently active jobState"
4648     },
4649     "runningTime": {
4650       "type": "string",
4651       "readOnly": true,
4652       "description": "Elapsed time in the current operational state"
4653     },
4654     "remainingTime": {
4655       "type": "string",
4656       "readOnly": true,
4657       "description": "Time till completion of the current operational state"
4658     },
4659     "progressPercentage": {
4660       "type": "integer",
4661       "readOnly": true,
4662       "description": "Percentage completeness of the current jobState"
4663     }
4664   }
4665 }
4666 },
4667 "type": "object",
4668 "allOf": [
4669   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4670   {"$ref": "#/definitions/oic.r.operational.state"}
4671 ],
4672 "required": ["machineStates", "currentMachineState"]
4673 }
4674

```

```

4675 example: /
4676 {
4677   "id": "unique_example_id",
4678   "machineStates": ["pause", "stopped", "idle", "active"],
4679   "currentMachineState": "active",
4680   "jobStates": ["preWash", "wash", "rinse", "spin", "dry", "airDry",
4681 "wrinklePrevent"],
4682   "currentJobState": "rinse",
4683   "runningTime": "PT15M20S",
4684   "remainingTime": "PT10M40S",
4685   "progressPercentage": 75
4686 }
4687

```

## 6.19.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
currentMachineState	string	yes		Current state of operation of the device.
currentJobState	string			Currently active jobState
machineStates	array: see schema	yes	Read Only	array of the possible operational states.
runningTime	string		Read Only	Elapsed time in the current operational state
remainingTime	string		Read Only	Time till completion of the current operational state

progressPercentage	integer		Read Only	Percentage completeness of the current jobState
jobStates	array: see schema		Read Only	array of the possible job states.

## 6.19.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/OperationalStateResURI		get	post		

## 6.20 Ramp Time

### 6.20.1 Introduction

This resource that describes the Ramp Time of a dimming function. This specifies the actual speed of changing between 2 dimming values. Time is specified in milliseconds [ms]. When range (from oic.r.baseresource) is omitted the maximum value is 100 ms. The RampTime of 0ms indicates the minimal delay possible by the implementation.

### 6.20.2 Example URI

/RampTimeResURI

### 6.20.3 Resource Type

The resource type (rt) is defined as: oic.r.light.ramptime.

### 6.20.4 RAML Definition

```

#%RAML 0.8
title: OICRampTime
version: v1.1.0-20160519

traits:
- interface :
    queryParameters:
        if:
            enum: ["oic.if.a", "oic.if.baseline"]

/RampTimeResURI:
    description: |
        This resource that describes the Ramp Time of a dimming function.
        This specifies the actual speed of changing between 2 dimming values.
        Time is specified in milliseconds [ms].
        When range (from oic.r.baseresource) is omitted the maximum value is 100 ms.
        The RampTime of 0ms indicates the minimal delay possible by the implementation.

    is : ['interface']

    get:
        description: |
            Retrieves the current RampTime.

        responses :
            200:
                body:
                    application/json:
                        schema: /
                            {
                                "id":

```

"http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.rampTime.json#",



```

4731         "$schema": "http://json-schema.org/draft-04/schema#",
4732         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4733 rights reserved.",
4734         "title": "Ramp Time",
4735         "definitions": {
4736             "oic.r.light.ramptime": {
4737                 "type": "object",
4738                 "properties": {
4739                     "rampTime": {
4740                         "type": "integer",
4741                         "description": "Actual speed of changing between 2 dimming values"
4742                     }
4743                 }
4744             },
4745             "type": "object",
4746             "allOf": [
4747                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4748                 {"$ref": "#/definitions/oic.r.light.ramptime"}
4749             ],
4750             "required": ["rampTime"]
4751         }
4752     }
4753
4754     example: /
4755     {
4756         "rt":          ["oic.r.light.ramptime"],
4757         "id":          "unique_example_id",
4758         "rampTime": 0,
4759         "range":       [0,100]
4760     }
4761
4762     post:
4763         description: |
4764             Sets the current RampTime.
4765
4766     body:
4767         application/json:
4768             schema: /
4769             {
4770                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.rampTime.json#",
4771                 "$schema": "http://json-schema.org/draft-04/schema#",
4772                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
4773 reserved.",
4774                 "title": "Ramp Time",
4775                 "definitions": {
4776                     "oic.r.light.ramptime": {
4777                         "type": "object",
4778                         "properties": {
4779                             "rampTime": {
4780                                 "type": "integer",
4781                                 "description": "Actual speed of changing between 2 dimming values"
4782                             }
4783                         }
4784                     },
4785                     "type": "object",
4786                     "allOf": [
4787                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4788                         {"$ref": "#/definitions/oic.r.light.ramptime"}
4789                     ],
4790                     "required": ["rampTime"]
4791                 }
4792             }
4793
4794     example: /
4795     {
4796         "id":          "unique_example_id",

```

```

4797         "rampTime": 50
4798     }
4799
4800     responses :
4801         200:
4802             body:
4803                 application/json:
4804                     schema: /
4805                         {
4806                             "id":
4807 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.rampTime.json#",
4808                             "$schema": "http://json-schema.org/draft-04/schema#",
4809                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4810 rights reserved.",
4811                             "title": "Ramp Time",
4812                             "definitions": {
4813                                 "oic.r.light.ramptime": {
4814                                     "type": "object",
4815                                     "properties": {
4816                                         "rampTime": {
4817                                             "type": "integer",
4818                                             "description": "Actual speed of changing between 2 dimming values"
4819                                         }
4820                                     }
4821                                 }
4822                             },
4823                             "type": "object",
4824                             "allOf": [
4825                                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
4826                                 { "$ref": "#/definitions/oic.r.light.ramptime" }
4827                             ],
4828                             "required": ["rampTime"]
4829                         }
4830
4831                     example: /
4832                         {
4833                             "id": "unique_example_id",
4834                             "rampTime": 50
4835                         }
4836
4837         403:
4838             description: |
4839                 This response is generated by the OIC Server when the client sends:
4840                 An update with an out of range property value for rampTime.
4841                 The server responds with the current resource representation.
4842
4843             body:
4844                 application/json:
4845                     schema: /
4846                         {
4847                             "id":
4848 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.light.rampTime.json#",
4849                             "$schema": "http://json-schema.org/draft-04/schema#",
4850                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4851 rights reserved.",
4852                             "title": "Ramp Time",
4853                             "definitions": {
4854                                 "oic.r.light.ramptime": {
4855                                     "type": "object",
4856                                     "properties": {
4857                                         "rampTime": {
4858                                             "type": "integer",
4859                                             "description": "Actual speed of changing between 2 dimming values"
4860                                         }

```

```

4861         }
4862     },
4863 },
4864 "type": "object",
4865 "allOf": [
4866     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
4867     { "$ref": "#/definitions/oic.r.light.rampTime" }
4868 ],
4869 "required": [ "rampTime" ]
4870 }
4871
4872 example: /
4873 {
4874     "id": "unique_example_id",
4875     "rampTime": 40
4876 }
4877

```

## 6.20.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rampTime	integer	yes		Actual speed of changing between 2 dimming values

## 6.20.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/RampTimeResURI		get	post		

## 6.21 Refrigeration

### 6.21.1 Introduction

This resource describes a refrigeration function. The filter state is a read-only value providing the percentage life time remaining for the water filter. RapidFreeze is a boolean that controls the rapid freeze capability if present. RapidCool is a boolean that controls the rapid cool capability if present. Defrost is a boolean that controls the defrost cycle if present. At least one of the listed Properties shall be present in a Resource Instance.

### 6.21.2 Example URI

/RefrigerationResURI

### 6.21.3 Resource Type

The resource type (rt) is defined as: oic.r.refrigeration.

### 6.21.4 RAML Definition

```

4892 #%RAML 0.8
4893 title: OICRefrigeration
4894 version: v1.1.0-20160519
4895 traits:
4896   - interface :
4897       queryParameters:
4898         if:
4899           enum: ["oic.if.a", "oic.if.baseline"]
4900
4901 /RefrigerationResURI:
4902   description: |
4903     This resource describes a refrigeration function.
4904     The filter state is a read-only value providing the percentage life time remaining for the
4905     water filter.
4906     RapidFreeze is a boolean that controls the rapid freeze capability if present.

```

```

4907     RapidCool is a boolean that controls the rapid cool capability if present.
4908     Defrost is a boolean that controls the defrost cycle if present.
4909     At least one of the listed Properties shall be present in a Resource Instance.
4910
4911     is : ['interface']
4912
4913     get:
4914         description: |
4915             Retrieves the current Refrigeration function status; all Properties supported by the Device
4916             are returned.
4917
4918     responses :
4919         200:
4920             body:
4921                 application/json:
4922                     schema: /
4923                         {
4924                             "id":
4925                             "http://openinterconnect.org/iotdatamodels/schemas/oic.r.refrigeration.json#",
4926                             "$schema": "http://json-schema.org/draft-04/schema#",
4927                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
4928                             rights reserved.",
4929                             "title": "Refrigeration",
4930                             "definitions": {
4931                                 "oic.r.refrigeration": {
4932                                     "type": "object",
4933                                     "anyOf": [
4934                                         {"required": ["filter"]},
4935                                         {"required": ["rapidFreeze"]},
4936                                         {"required": ["rapidCool"]},
4937                                         {"required": ["defrost"]}
4938                                     ],
4939                                     "properties": {
4940                                         "filter": {
4941                                             "type": "integer",
4942                                             "readOnly": true,
4943                                             "description": "Percentage life time remaining for the water filter"
4944                                         },
4945                                         "rapidFreeze": {
4946                                             "type": "boolean",
4947                                             "description": "Indicates whether the unit has a rapid freeze capability
4948                                             active."
4949                                         },
4950                                         "rapidCool": {
4951                                             "type": "boolean",
4952                                             "description": "Indicates whether the unit has a rapid cool capability
4953                                             active"
4954                                         },
4955                                         "defrost": {
4956                                             "type": "boolean",
4957                                             "description": "Indicates whether a defrost cycle is currently active"
4958                                         }
4959                                     }
4960                                 }
4961                             },
4962                             "type": "object",
4963                             "allOf": [
4964                                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
4965                                 {"$ref": "#/definitions/oic.r.refrigeration"}
4966                             ]
4967                         }
4968
4969     example: /
4970         {
4971             "rt":          ["oic.r.refrigeration"],
4972             "id":          "unique_example_id",

```

```

4972         "filter":      75,
4973         "rapidFreeze":  false,
4974         "rapidCool":   false,
4975         "defrost":      true
4976     }
4977
4978     post:
4979         description: |
4980             Activates the desired Refrigeration functions.
4981             Suported values are rapidFreeze, rapidCool and defrost.
4982             At least on of the supported values shall be provided.
4983
4984     body:
4985         application/json:
4986             schema: /
4987                 {
4988                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.refrigeration-
4989 Update.json#",
4990                     "$schema": "http://json-schema.org/draft-04/schema#",
4991                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
4992 reserved.",
4993                     "title": "Refrigeration",
4994                     "definitions": {
4995                         "oic.r.refrigeration": {
4996                             "type": "object",
4997                             "anyOf": [
4998                                 {"required": ["rapidFreeze"]},
4999                                 {"required": ["rapidCool"]},
5000                                 {"required": ["defrost"]}
5001                             ],
5002                             "properties": {
5003                                 "rapidFreeze": {
5004                                     "type": "boolean",
5005                                     "description": "Indicates whether the unit has a rapid freeze capability
5006 active."
5007                                 },
5008                                 "rapidCool": {
5009                                     "type": "boolean",
5010                                     "description": "Indicates whether the unit has a rapid cool capability active"
5011                                 },
5012                                 "defrost": {
5013                                     "type": "boolean",
5014                                     "description": "Indicates whether a defrost cycle is currently active"
5015                                 }
5016                             }
5017                         },
5018                     },
5019                     "type": "object",
5020                     "allOf": [
5021                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5022                         {"$ref": "#/definitions/oic.r.refrigeration"}
5023                     ]
5024                 }
5025
5026     example: /
5027         {
5028             "id":          "unique_example_id",
5029             "rapidFreeze": true
5030         }
5031
5032     responses :
5033         200:
5034             description: |

```

```

5035         Indicates that the Refrigeration function was changed.
5036         The new status can be provided in the response.
5037
5038     body:
5039         application/json:
5040             schema: /
5041                 {
5042                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.refrigeration-
5043 Update.json#",
5044                     "$schema": "http://json-schema.org/draft-04/schema#",
5045                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5046 rights reserved.",
5047                     "title": "Refrigeration",
5048                     "definitions": {
5049                         "oic.r.refrigeration": {
5050                             "type": "object",
5051                             "anyOf": [
5052                                 {"required": ["rapidFreeze"]},
5053                                 {"required": ["rapidCool"]},
5054                                 {"required": ["defrost"]}
5055                             ],
5056                             "properties": {
5057                                 "rapidFreeze": {
5058                                     "type": "boolean",
5059                                     "description": "Indicates whether the unit has a rapid freeze capability
5060 active."
5061                                 },
5062                                 "rapidCool": {
5063                                     "type": "boolean",
5064                                     "description": "Indicates whether the unit has a rapid cool capability
5065 active"
5066                                 },
5067                                 "defrost": {
5068                                     "type": "boolean",
5069                                     "description": "Indicates whether a defrost cycle is currently active"
5070                                 }
5071                             }
5072                         }
5073                     },
5074                     "type": "object",
5075                     "allOf": [
5076                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5077                         {"$ref": "#/definitions/oic.r.refrigeration"}
5078                     ]
5079                 }
5080
5081     example: /
5082         {
5083             "id": "unique_example_id",
5084             "rapidFreeze": true
5085         }
5086

```

## 6.21.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
filter	integer	yes	Read Only	Percentage life time remaining for the water filter
rapidFreeze	boolean	yes		Indicates whether the unit has a rapid freeze capability active.

defrost	boolean	yes		Indicates whether a defrost cycle is currently active
rapidCool	boolean	yes		Indicates whether the unit has a rapid cool capability active

## 6.21.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/RefrigerationResURI		get	post		

## 6.22 Temperature

### 6.22.1 Introduction

This resource describes a sensed or actuated Temperature value. The temperature describes the current value measured. The units is a single value that is one of C, F or K. It provides the unit of measurement for the temperature value. It is a read-only value that is provided by the server. If the units Property is missing the default is Celsius [C]. When range (from oic.r.baseresource) is omitted the default is +/- MAXINT.

### 6.22.2 Example URI

/TemperatureResURI

### 6.22.3 Resource Type

The resource type (rt) is defined as: oic.r.temperature.

### 6.22.4 RAML Definition

```

#%RAML 0.8
title: OICTemperature
version: v1.1.0-20160519

traits:
  - interface :
      queryParameters:
        if:
          enum: ["oic.if.a", "oic.if.s", "oic.if.baseline"]

/temperatureResURI:
  description: |
    This resource describes a sensed or actuated Temperature value.
    The temperature describes the current value measured.
    The units is a single value that is one of C, F or K.
    It provides the unit of measurement for the temperature value.
    It is a read-only value that is provided by the server.
    If the units Property is missing the default is Celsius [C].
    When range (from oic.r.baseresource) is omitted the default is +/- MAXINT.

  is : ['interface']

  get:
    description: |
      Retrieves the current temperature value.
      A client can specify the units for the requested temperature by use of a query parameter.
      If no query parameter is provided the server provides its default measure or set value.

    queryParameters:
      units:
        enum: CFK

```

```

5130     responses :
5131         200:
5132             body:
5133                 application/json:
5134                     schema: /
5135                         {
5136                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.temperature.json#",
5137                             "$schema": "http://json-schema.org/draft-04/schema#",
5138                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5139 rights reserved.",
5140                             "title": "Temperature",
5141                             "definitions": {
5142                                 "oic.r.temperature": {
5143                                     "type": "object",
5144                                     "properties": {
5145                                         "temperature": {
5146                                             "type": "number",
5147                                             "description": "Current temperature setting or measurement"
5148                                         },
5149                                         "units": {
5150                                             "enum": ["C", "F", "K"],
5151                                             "description": "Units for the temperature value",
5152                                             "readOnly": true
5153                                         }
5154                                     }
5155                                 }
5156                             },
5157                             "type": "object",
5158                             "allOf": [
5159                                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
5160                                 { "$ref": "#/definitions/oic.r.temperature" }
5161                             ],
5162                             "required": ["temperature"]
5163                         }
5164
5165                     example: /
5166                         {
5167                             "rt":          ["oic.r.temperature"],
5168                             "id":          "unique_example_id",
5169                             "temperature": 20.0,
5170                             "units":       "C",
5171                             "range":       [0.0,100.0]
5172                         }
5173
5174         403:
5175             description: |
5176                 This response is generated by the OIC Server when the client sends:
5177                 A retrieve with q queryParameter indicating a unit that the server does not support.
5178                 The server responds with the current resource representation including the
5179                 units property illustrating the supported units and the error.
5180
5181             body:
5182                 application/json:
5183                     schema: /
5184                         {
5185                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.temperature.json#",
5186                             "$schema": "http://json-schema.org/draft-04/schema#",
5187                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5188 rights reserved.",
5189                             "title": "Temperature",
5190                             "definitions": {
5191                                 "oic.r.temperature": {
5192                                     "type": "object",
5193                                     "properties": {
5194                                         "temperature": {

```



```

5195         "type": "number",
5196         "description": "Current temperature setting or measurement"
5197     },
5198     "units": {
5199         "enum": ["C", "F", "K"],
5200         "description": "Units for the temperature value",
5201         "readOnly": true
5202     }
5203 }
5204 }
5205 },
5206 "type": "object",
5207 "allOf": [
5208     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5209     {"$ref": "#/definitions/oic.r.temperature"}
5210 ],
5211 "required": ["temperature"]
5212 }
5213
5214 example: /
5215 {
5216     "id":          "unique_example_id",
5217     "temperature": 20.0,
5218     "units":       "C"
5219 }
5220
5221 post:
5222     description: |
5223         Sets the desired temperature value.
5224         If a unit is included and the server does not support the unit indicated the request will
5225 fail.
5226         If the units are omitted value is taken to be in C.
5227
5228     body:
5229         application/json:
5230             schema: /
5231                 {
5232                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.temperature.json#",
5233                     "$schema": "http://json-schema.org/draft-04/schema#",
5234                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
5235 reserved.",
5236                     "title": "Temperature",
5237                     "definitions": {
5238                         "oic.r.temperature": {
5239                             "type": "object",
5240                             "properties": {
5241                                 "temperature": {
5242                                     "type": "number",
5243                                     "description": "Current temperature setting or measurement"
5244                                 },
5245                                 "units": {
5246                                     "enum": ["C", "F", "K"],
5247                                     "description": "Units for the temperature value",
5248                                     "readOnly": true
5249                                 }
5250                             }
5251                         }
5252                     },
5253                     "type": "object",
5254                     "allOf": [
5255                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5256                         {"$ref": "#/definitions/oic.r.temperature"}
5257                     ],
5258                     "required": ["temperature"]
5259                 }
5260
5261 example: /

```

```

5262     {
5263         "id": "unique_example_id",
5264         "temperature": 18.0
5265     }
5266
5267     responses :
5268         200:
5269             body:
5270                 application/json:
5271                     schema: /
5272                         {
5273                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.temperature.json#",
5274                             "$schema": "http://json-schema.org/draft-04/schema#",
5275                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
5276                             "title": "Temperature",
5277                             "definitions": {
5278                                 "oic.r.temperature": {
5279                                     "type": "object",
5280                                     "properties": {
5281                                         "temperature": {
5282                                             "type": "number",
5283                                             "description": "Current temperature setting or measurement"
5284                                         },
5285                                         "units": {
5286                                             "enum": ["C", "F", "K"],
5287                                             "description": "Units for the temperature value",
5288                                             "readOnly": true
5289                                         }
5290                                     }
5291                                 }
5292                             },
5293                             "type": "object",
5294                             "allOf": [
5295                                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
5296                                 { "$ref": "#/definitions/oic.r.temperature" }
5297                             ],
5298                             "required": ["temperature"]
5299                         }
5300
5301                     example: /
5302                         {
5303                             "id": "unique_example_id",
5304                             "temperature": 18.0
5305                         }
5306
5307
5308         403:
5309             description: |
5310                 This response is generated by the OIC Server when the client sends:
5311                 An update with an out of range property value for temperature.
5312                 An update with an unsupported unit for this server.
5313                 The server responds with the current resource representation including
5314                 the range property illustrating the supported range and the error.
5315
5316             body:
5317                 application/json:
5318                     schema: /
5319                         {
5320                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.temperature.json#",
5321                             "$schema": "http://json-schema.org/draft-04/schema#",
5322                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
5323                             "title": "Temperature",
5324                             "definitions": {

```

```

5326         "oic.r.temperature": {
5327             "type": "object",
5328             "properties": {
5329                 "temperature": {
5330                     "type": "number",
5331                     "description": "Current temperature setting or measurement"
5332                 },
5333                 "units": {
5334                     "enum": ["C", "F", "K"],
5335                     "description": "Units for the temperature value",
5336                     "readOnly": true
5337                 }
5338             }
5339         },
5340         "type": "object",
5341         "allOf": [
5342             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5343             {"$ref": "#/definitions/oic.r.temperature"}
5344         ],
5345         "required": ["temperature"]
5346     }
5347 }
5348
5349     example: /
5350     {
5351         "id": "unique_example_id",
5352         "temperature": 20.0,
5353         "units": "C",
5354         "range": [0.0,100.0]
5355     }
5356

```

## 6.22.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
units	multiple types: see schema		Read Only	Units for the temperature value
temperature	number	yes		Current temperature setting or measurement

## 6.22.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/TemperatureResURI		get	post		

## 6.23 Time Period

### 6.23.1 Introduction

This resource describes the time period over which any additionally provided information is derived or bounded. The startTime and stopTime are ISO8601 encoded strings. startTime must be present. The interval is the interval of the time period in minutes, if present this value must be no less than 1 minute. stopTime and interval are mutually exclusive; both Properties cannot be present in a Resource instance.

### 6.23.2 Example URI

/TimePeriodResURI

### 6.23.3 Resource Type

The resource type (rt) is defined as: oic.r.time.period.

### 6.23.4 RAML Definition

[#%RAML 0.8](#)

```

5372 title: OICTimePeriod
5373 version: v1.1.0-20160519
5374 traits:
5375   - interface :
5376     queryParameters:
5377       if:
5378         enum: ["oic.if.a", "oic.if.baseline"]
5379
5380 /TimePeriodResURI:
5381   description: |
5382     This resource describes the time period over which any additionally provided
5383     information is derived or bounded.
5384     The startTime and stopTime are ISO8601 encoded strings
5385     startTime must be present.
5386     The interval is the interval of the time period in minutes, if present this value must be no
5387     less than 1 minute.
5388     stopTime and interval are mutually exclusive; both Properties cannot be present in a Resource
5389     instance.
5390
5391   is : ['interface']
5392   get:
5393     description: |
5394       Defines a time period for information retrieval, action or other behaviour.
5395
5396   responses :
5397     200:
5398       body:
5399         application/json:
5400           schema: /
5401             {
5402               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.time.period.json#",
5403               "$schema": "http://json-schema.org/draft-04/schema#",
5404               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5405 rights reserved.",
5406               "title": "Time Period",
5407               "definitions": {
5408                 "oic.r.time.period": {
5409                   "type": "object",
5410                   "properties": {
5411                     "startTime":{
5412                       "type": "string",
5413                       "description": "Start time for the time period"
5414                     },
5415                     "stopTime": {
5416                       "type": "string",
5417                       "description": "Stop time for the time period, if present interval cannot
5418 be present"
5419                     },
5420                     "interval": {
5421                       "type": "integer",
5422                       "description": "Time interval in minutes after the startTime, if present
5423 stopTime cannot be present"
5424                     }
5425                   },
5426                   "required": ["startTime"]
5427                 }
5428               },
5429               "type": "object",
5430               "allOf": [
5431                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5432                 {"$ref": "#/definitions/oic.r.time.period"}
5433               ]
5434             }
5435

```

```

5436         example: /
5437             {
5438                 "rt":          ["oic.r.time.period"],
5439                 "id":          "unique_example_id",
5440                 "startTime": "2015-01-09T14:30Z",
5441                 "stopTime":  "2015-01-09T14:45Z"
5442             }
5443
5444     post:
5445         description: |
5446             Sets or updates a time period for information retrieval, action or other behavior.
5447
5448         body:
5449             application/json:
5450                 schema: /
5451                     {
5452                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.time.period.json#",
5453                         "$schema": "http://json-schema.org/draft-04/schema#",
5454                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
5455 reserved.",
5456                         "title": "Time Period",
5457                         "definitions": {
5458                             "oic.r.time.period": {
5459                                 "type": "object",
5460                                 "properties": {
5461                                     "startTime":{
5462                                         "type": "string",
5463                                         "description": "Start time for the time period"
5464                                     },
5465                                     "stopTime": {
5466                                         "type": "string",
5467                                         "description": "Stop time for the time period, if present interval cannot be
5468 present"
5469                                     },
5470                                     "interval": {
5471                                         "type": "integer",
5472                                         "description": "Time interval in minutes after the startTime, if present
5473 stopTime cannot be present"
5474                                     }
5475                                 },
5476                                 "required": ["startTime"]
5477                             }
5478                         },
5479                         "type": "object",
5480                         "allOf": [
5481                             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5482                             {"$ref": "#/definitions/oic.r.time.period"}
5483                         ]
5484                     }
5485
5486         example: /
5487             {
5488                 "id":          "unique_example_id",
5489                 "startTime": "2015-01-09T14:30Z",
5490                 "stopTime":  "2015-01-09T14:45Z"
5491             }
5492
5493     responses :
5494         200:
5495             body:
5496                 application/json:
5497                     schema: /
5498                         {
5499                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.time.period.json#",

```

```

5500         "$schema": "http://json-schema.org/draft-04/schema#",
5501         "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5502 rights reserved.",
5503         "title": "Time Period",
5504         "definitions": {
5505             "oic.r.time.period": {
5506                 "type": "object",
5507                 "properties": {
5508                     "startTime": {
5509                         "type": "string",
5510                         "description": "Start time for the time period"
5511                     },
5512                     "stopTime": {
5513                         "type": "string",
5514                         "description": "Stop time for the time period, if present interval cannot
5515 be present"
5516                     },
5517                     "interval": {
5518                         "type": "integer",
5519                         "description": "Time interval in minutes after the startTime, if present
5520 stopTime cannot be present"
5521                     }
5522                 },
5523                 "required": ["startTime"]
5524             }
5525         },
5526         "type": "object",
5527         "allOf": [
5528             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5529             {"$ref": "#/definitions/oic.r.time.period"}
5530         ]
5531     }
5532
5533     example: /
5534     {
5535         "id": "unique_example_id",
5536         "startTime": "2015-01-09T14:30Z",
5537         "stopTime": "2015-01-09T14:45Z"
5538     }
5539

```

### 6.23.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
stopTime	string			Stop time for the time period, if present interval cannot be present
startTime	string	yes		Start time for the time period
interval	integer			Time interval in minutes after the startTime, if present stopTime cannot be present

### 6.23.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/TimePeriodResURI		get	post		

## 6.24 Activity Count

### 6.24.1 Introduction

This resource specifies an activity count. The resource can be readonly (oic.if.s interface) in which instance it represents a count. The resource can be readwrite (oic.if.a interface) in which instance it represents a goal or target for a count. The count property is an integer representing either the current count or goal value.

### 6.24.2 Example URI

/ActivityCountResURI

### 6.24.3 Resource Type

The resource type (rt) is defined as: oic.r.sensor.activity.count.

### 6.24.4 RAML Definition

```
##RAML 0.8
title: OICActivityCount
version: v1.1.0-20160519

traits:
  - interface :
      queryParameters:

        if:
          enum: ["oic.if.s", "oic.if.a", "oic.if.baseline"]

/ActivityCountResURI:

  description: |
    This resource specifies an activity count.
    The resource can be readonly (oic.if.s interface) in which instance it represents a count.
    The resource can be readwrite (oic.if.a interface) in which instance it represents a goal or
    target for a count.
    The count property is an integer representing either the current count or goal value.

  is : ['interface']

  get:

    description: |
      Retrieves the current activity count.

    responses :

      200:

        body:
          application/json:

            schema: /

              {
                "id":
"http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.activity.count.json#",
                "$schema": "http://json-schema.org/draft-04/schema#",
                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                "title": "Activity Count Sensor",
                "definitions": {
                  "oic.r.sensor.activity.count": {
                    "properties": {
                      "count": {
                        "type": "integer",
                        "description": "Current or Target count."
                      }
                    }
                  }
                }
              },
            "type": "object",
```

```

5598         "allOf": [
5599             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
5600             { "$ref": "#/definitions/oic.r.sensor.activity.count" }
5601         ],
5602         "required": ["count"]
5603     }
5604
5605     example: /
5606     {
5607         "rt": ["oic.r.sensor.activity.count"],
5608         "id": "unique_example_id",
5609         "count": 2500
5610     }
5611
5612     post:
5613         description: |
5614             Sets the count target
5615
5616         body:
5617             application/json:
5618                 schema: /
5619                 {
5620                     "id":
5621 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.activity.count.json#",
5622                     "$schema": "http://json-schema.org/draft-04/schema#",
5623                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
5624 reserved.",
5625                     "title": "Activity Count Sensor",
5626                     "definitions": {
5627                         "oic.r.sensor.activity.count": {
5628                             "properties": {
5629                                 "count": {
5630                                     "type": "integer",
5631                                     "description": "Current or Target count."
5632                                 }
5633                             }
5634                         }
5635                     },
5636                     "type": "object",
5637                     "allOf": [
5638                         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
5639                         { "$ref": "#/definitions/oic.r.sensor.activity.count" }
5640                     ],
5641                     "required": ["count"]
5642                 }
5643
5644         example: /
5645         {
5646             "id": "unique_example_id",
5647             "count": 5000
5648         }
5649
5650     responses :
5651         200:
5652             body:
5653                 application/json:
5654                     schema: /
5655                     {
5656                         "id":
5657 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.activity.count.json#",
5658                         "$schema": "http://json-schema.org/draft-04/schema#",
5659                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5660 rights reserved.",

```



```

5661         "title": "Activity Count Sensor",
5662         "definitions": {
5663             "oic.r.sensor.activity.count": {
5664                 "properties": {
5665                     "count": {
5666                         "type": "integer",
5667                         "description": "Current or Target count."
5668                     }
5669                 }
5670             }
5671         },
5672         "type": "object",
5673         "allOf": [
5674             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5675             {"$ref": "#/definitions/oic.r.sensor.activity.count"}
5676         ],
5677         "required": ["count"]
5678     }
5679
5680     example: /
5681     {
5682         "id": "unique_example_id",
5683         "count": 5000
5684     }
5685

```

#### 5686 6.24.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
count	integer	yes		Current or Target count.

#### 5687 6.24.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/ActivityCountResURI		get	post		

### 5688 6.25 Atmospheric Pressure Sensor

#### 5689 6.25.1 Introduction

5690 This resource provides a measurement of Mean Sea Level Pressure experienced at the measuring  
5691 point expressed in millibars. The value is float which describes the atmospheric pressure in hPa  
5692 (hectoPascals). Note that hPa and the also commonly used unit of millibars (mbar) are numerically  
5693 equivalent.

#### 5694 6.25.2 Example URI

5695 /AtmosphericPressureResURI

#### 5696 6.25.3 Resource Type

5697 The resource type (rt) is defined as: oic.r.sensor.atmosphericpressure.

#### 5698 6.25.4 RAML Definition

```

5699 #%RAML 0.8
5700 title: OICAtmosphericPressureSensor
5701 version: v1.1.0-20160519
5702 traits:
5703   - interface :
5704       queryParameters:
5705           if:
5706               enum: ["oic.if.s", "oic.if.baseline"]
5707
5708 /AtmosphericPressureResURI:
5709     description: |

```

This resource provides a measurement of Mean Sea Level Pressure experienced at the measuring point expressed in millibars.  
 The value is float which describes the atmospheric pressure in hPa (hectoPascals).  
 Note that hPa and the also commonly used unit of millibars (mbar) are numerically equivalent.

```

is : ['interface']
get:
  responses :
    200:
      body:
        application/json:
          schema: /
            {
              "id":
"http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.atmosphericPressure.json#",
              "$schema": "http://json-schema.org/draft-04/schema#",
              "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
              "title": "Atmospheric Pressure Sensor",
              "definitions": {
                "oic.r.sensor.atmosphericpressure": {
                  "properties": {
                    "atmosphericPressure": {
                      "type": "number",
                      "readOnly": true,
                      "description": "Current atmospheric pressure in hPa."
                    }
                  }
                }
              },
              "type": "object",
              "allOf": [
                {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
                {"$ref": "#/definitions/oic.r.sensor.atmosphericpressure"}
              ],
              "required": ["atmosphericPressure"]
            }

          example: /
            {
              "rt":          ["oic.r.sensor.atmosphericpressure"],
              "id":          "unique_example_id",
              "atmosphericPressure": 1000.4
            }

```

## 6.25.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
atmosphericPressure	number	yes	Read Only	Current atmospheric pressure in hPa.

## 6.25.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/AtmosphericPressureResURI		get			

## 6.26 Audio Controls

### 6.26.1 Introduction

This resource defines basic audio control functions. The volume is an integer containing a percentage [0,100]. A volume of 0 (zero) means no sound produced. A volume of 100 means maximum sound production. The mute control is implemented as a boolean. A mute value of true

means that the device is muted (no audio). A mute value of false means that the device is not muted (audio).

## 6.26.2 Example URI

/AudioResURI

## 6.26.3 Resource Type

The resource type (rt) is defined as: oic.r.audio.

## 6.26.4 RAML Definition

```
##RAML 0.8
title: OICAudio
version: v1.1.0-20160519

traits:
- interface :
    queryParameters:
        if:
            enum: ["oic.if.a", "oic.if.baseline"]

/AudioResURI:
    description: |
        This resource defines basic audio control functions.
        The volume is an integer containing a percentage [0,100].
        A volume of 0 (zero) means no sound produced.
        A volume of 100 means maximum sound production.
        The mute control is implemented as a boolean.
        A mute value of true means that the device is muted (no audio).
        A mute value of false means that the device is not muted (audio).

    is : ['interface']
    get:
        responses :
            200:
                body:
                    application/json:
                        schema: /
                            {
                                "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.audio.json#",
                                "$schema": "http://json-schema.org/draft-04/schema#",
                                "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                                "definitions": {
                                    "oic.r.audio": {
                                        "type": "object",
                                        "properties": {
                                            "volume": {
                                                "type": "integer",
                                                "description": "Volume setting of an audio rendering device.",
                                                "minimum": 0,
                                                "maximum": 100
                                            },
                                            "mute": {
                                                "type": "boolean",
                                                "description": "Mute setting of an audio rendering device"
                                            }
                                        }
                                    }
                                },
                                "type": "object",
                                "allOf": [
                                    {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
                                    {"$ref": "#/definitions/oic.r.audio"}
                                ]
                            }
```

```

5821         ],
5822         "required": ["volume", "mute"]
5823     }
5824
5825     example: /
5826     {
5827         "rt":      ["oic.r.audio"],
5828         "id":      "unique_example_id",
5829         "volume": 50,
5830         "mute":    false
5831     }
5832
5833     post:
5834     body:
5835     application/json:
5836     schema: /
5837     {
5838         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.audio.json#",
5839         "$schema": "http://json-schema.org/draft-04/schema#",
5840         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
5841 reserved.",
5842         "definitions": {
5843             "oic.r.audio": {
5844                 "type": "object",
5845                 "properties": {
5846                     "volume": {
5847                         "type": "integer",
5848                         "description": "Volume setting of an audio rendering device.",
5849                         "minimum": 0,
5850                         "maximum": 100
5851                     },
5852                     "mute": {
5853                         "type": "boolean",
5854                         "description": "Mute setting of an audio rendering device"
5855                     }
5856                 }
5857             },
5858             "type": "object",
5859             "allOf": [
5860                 {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
5861                 {"$ref": "#/definitions/oic.r.audio"}
5862             ],
5863             "required": ["volume", "mute"]
5864         }
5865     }
5866
5867     example: /
5868     {
5869         "id":      "unique_example_id",
5870         "volume": 75,
5871         "mute":    false
5872     }
5873
5874     responses :
5875     200:
5876     body:
5877     application/json:
5878     schema: /
5879     {
5880         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.audio.json#",
5881         "$schema": "http://json-schema.org/draft-04/schema#",
5882         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5883 rights reserved.",
5884         "definitions": {

```

```

5885         "oic.r.audio": {
5886             "type": "object",
5887             "properties": {
5888                 "volume": {
5889                     "type": "integer",
5890                     "description": "Volume setting of an audio rendering device.",
5891                     "minimum": 0,
5892                     "maximum": 100
5893                 },
5894                 "mute": {
5895                     "type": "boolean",
5896                     "description": "Mute setting of an audio rendering device"
5897                 }
5898             }
5899         },
5900         "type": "object",
5901         "allOf": [
5902             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
5903             { "$ref": "#/definitions/oic.r.audio" }
5904         ],
5905         "required": ["volume", "mute"]
5906     }
5907 }
5908
5909     example: /
5910     {
5911         "id":      "unique_example_id",
5912         "volume":  75,
5913         "mute":    false
5914     }
5915

```

### 6.26.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
volume	integer	yes		Volume setting of an audio rendering device.
mute	boolean	yes		Mute setting of an audio rendering device

### 6.26.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/AudioResURI		get	post		

## 6.27 Auto Focus

### 6.27.1 Introduction

This resource describes an auto focus on/off feature. The value is a boolean. An AutoFocus value of 'true' means that the switch is on. An AutoFocus value of 'false' means that the switch is off. Note that when Pan Tilt Zoom (see 'Pan Tilt Zoom' Resource definition) is used the autofocus works only in the selected area.

### 6.27.2 Example URI

/AutoFocusResURI

### 6.27.3 Resource Type

The resource type (rt) is defined as: oic.r.autofocus.

### 6.27.4 RAML Definition

```

5929 #%RAML 0.8
5930 title: OICAutoFocus
5931 version: v1.1.0-20160519

```

```

5932 traits:
5933   - interface :
5934     queryParameters:
5935       if:
5936         enum: ["oic.if.a", "oic.if.baseline"]
5937
5938 /AutoFocusResURI:
5939   description: |
5940     This resource describes an auto focus on/off feature.
5941     The value is a boolean.
5942     An AutoFocus value of 'true' means that the switch is on.
5943     An AutoFocus value of 'false' means that the switch is off.
5944     Note that when Pan Tilt Zoom (see 'Pan Tilt Zoom' Resource definition) is used the autofocus
5945     works only in the selected area.
5946
5947   is : ['interface']
5948   get:
5949     responses :
5950       200:
5951         body:
5952           application/json:
5953             schema: /
5954               {
5955                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.autofocus.json#",
5956                 "$schema": "http://json-schema.org/draft-04/schema#",
5957                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
5958 rights reserved.",
5959                 "title": "Auto Focus",
5960                 "definitions": {
5961                   "oic.r.autofocus": {
5962                     "type": "object",
5963                     "properties": {
5964                       "autoFocus": {
5965                         "type": "boolean",
5966                         "description": "Status of the Auto Focus"
5967                       }
5968                     }
5969                 },
5970                 "type": "object",
5971                 "allOf": [
5972                   { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
5973                   { "$ref": "#/definitions/oic.r.autofocus" }
5974                 ],
5975                 "required": [ "autoFocus" ]
5976               }
5977
5978   example: /
5979     {
5980       "rt":          ["oic.r.autofocus"],
5981       "id":          "unique_example_id",
5982       "autoFocus":   false
5983     }
5984
5985
5986   post:
5987     body:
5988       application/json:
5989         schema: /
5990           {
5991             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.autofocus.json#",
5992             "$schema": "http://json-schema.org/draft-04/schema#",
5993             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights

```

```

5994 reserved.",
5995     "title": "Auto Focus",
5996     "definitions": {
5997         "oic.r.autofocus": {
5998             "type": "object",
5999             "properties": {
6000                 "autoFocus": {
6001                     "type": "boolean",
6002                     "description": "Status of the Auto Focus"
6003                 }
6004             }
6005         },
6006     },
6007     "type": "object",
6008     "allOf": [
6009         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6010         {"$ref": "#/definitions/oic.r.autofocus"}
6011     ],
6012     "required": [ "autoFocus" ]
6013 }
6014
6015 example: /
6016 {
6017     "id":          "unique_example_id",
6018     "autoFocus":  true
6019 }
6020
6021 responses :
6022     200:
6023         body:
6024             application/json:
6025                 schema: /
6026                     {
6027                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.autofocus.json#",
6028                         "$schema": "http://json-schema.org/draft-04/schema#",
6029                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6030 rights reserved.",
6031                         "title": "Auto Focus",
6032                         "definitions": {
6033                             "oic.r.autofocus": {
6034                                 "type": "object",
6035                                 "properties": {
6036                                     "autoFocus": {
6037                                         "type": "boolean",
6038                                         "description": "Status of the Auto Focus"
6039                                     }
6040                                 }
6041                             },
6042                         },
6043                         "type": "object",
6044                         "allOf": [
6045                             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6046                             {"$ref": "#/definitions/oic.r.autofocus"}
6047                         ],
6048                         "required": [ "autoFocus" ]
6049                     }
6050
6051 example: /
6052 {
6053     "id":          "unique_example_id",
6054     "autoFocus":  true
6055 }
6056

```

### 6.27.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
autoFocus	boolean	yes		Status of the Auto Focus

### 6.27.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/AutoFocusResURI		get	post		

## 6.28 Automatic Document Feeder

### 6.28.1 Introduction

This resource describes the state of an automatic document feeder, typically used with a scanner. The states are read only. The `adfStates` is an array of the possible operational states. `adfProcessing` is the OK state, other states are errors or require 'user attention'. The `currentAdfState` is the current value of the ADF state on the device.

### 6.28.2 Example URI

/AutomaticDocumentFeederResURI

### 6.28.3 Resource Type

The resource type (rt) is defined as: `oic.r.automaticdocumentfeeder`.

### 6.28.4 RAML Definition

```
##RAML 0.8
title: OICAAutomaticDocumentFeeder
version: v1.1.0-20160519

traits:
  - interface :
      queryParameters:
        if:
          enum: ["oic.if.s", "oic.if.baseline"]

/AutomaticDocumentFeederResURI:
  description: |
    This resource describes the state of an automatic document feeder, typically used with a scanner.
    The states are read only.
    The adfStates is an array of the possible operational states.
    adfProcessing is the OK state, other states are errors or require 'user attention'.
    The currentAdfState is the current value of the ADF state on the device.

  is : ['interface']

  get:
    description: |
      Retrieves the current automatic document feeder state.

    responses :
      200:
        body:
          application/json:
            schema: /
              {
                "id":
                  "http://openinterconnect.org/iotdatamodels/schemas/oic.r.automaticDocumentFeeder.json#",
                "$schema": "http://json-schema.org/draft-04/schema#",
                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
```



```

6103 rights reserved.",
6104     "title": "Automatic Document Feeder",
6105     "definitions": {
6106         "oic.r.automaticdocumentfeeder": {
6107             "type": "object",
6108             "properties": {
6109                 "adfStates": {
6110                     "type": "array",
6111                     "readOnly": true,
6112                     "description": "array of the possible adf states.",
6113                     "items": {
6114                         "type": "string"
6115                     }
6116                 },
6117                 "currentAdfState": {
6118                     "type": "string",
6119                     "readOnly": true,
6120                     "description": "Current adf state."
6121                 }
6122             }
6123         },
6124         "type": "object",
6125         "allOf": [
6126             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
6127             { "$ref": "#/definitions/oic.r.automaticdocumentfeeder" }
6128         ],
6129         "required": ["adfStates", "currentAdfState"]
6130     }
6131 }
6132
6133 example: /
6134 {
6135     "rt": ["oic.r.automaticdocumentfeeder"],
6136     "id": "unique_example_id",
6137     "adfStates": ["adfProcessing", "adfEmpty", "adfJam", "adfLoaded",
6138 "adfMispick", "adfHatchOpen", "adfDuplexPageTooShort", "adfDuplexPageTooLong",
6139 "adfMultipickDetected", "adfInputTrayFailed", "adfInputTrayOverloaded"],
6140     "currentAdfState": "adfProcessing"
6141 }
6142

```

## 6143 6.28.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
adfStates	array: see schema	yes	Read Only	array of the possible adf states.
currentAdfState	string	yes	Read Only	Current adf state.

## 6144 6.28.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/AutomaticDocumentFeederResURI		get			

## 6145 6.29 Button Switch

### 6146 6.29.1 Introduction

6147 This resource describes the operation of a button style switch. The value is a boolean. A value of  
6148 'true' means that the button is being pushed/pressed. A value of 'false' means that the button is  
6149 not being pushed/pressed.

### 6150 6.29.2 Example URI

6151 /ButtonResURI

### 6.29.3 Resource Type

The resource type (rt) is defined as: oic.r.button.

### 6.29.4 RAML Definition

```
##RAML 0.8
title: OICButton
version: v1.1.0-20160519

traits:
  - interface :
      queryParameters:
          if:
              enum: ["oic.if.s", "oic.if.baseline"]

/ButtonResURI:
  description: |
    This resource describes the operation of a button style switch.
    The value is a boolean.
    A value of 'true' means that the button is being pushed/pressed.
    A value of 'false' means that the button is not being pushed/pressed.

  is : ['interface']

  get:
    responses :
      200:
        body:
          application/json:
            schema: /
              {
                "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.button.json#",
                "$schema": "http://json-schema.org/draft-04/schema#",
                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                "title": "Button Switch",
                "definitions": {
                  "oic.r.button": {
                    "properties": {
                      "value": {
                        "type": "boolean",
                        "readOnly": true,
                        "description": "Status of the button"
                      }
                    }
                  }
                },
                "type": "object",
                "allOf": [
                  { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
                  { "$ref": "#/definitions/oic.r.button" }
                ],
                "required": ["value"]
              }

  example: /
    {
      "rt":      ["oic.r.button"],
      "id":      "unique_example_id",
      "value":   true
    }
```

## 6.29.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	Status of the button

## 6.29.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/ButtonResURI		get			

## 6.30 Carbon Dioxide Sensor

### 6.30.1 Introduction

This resource describes whether carbon dioxide has been sensed or not. The value is a boolean. A value of 'true' means that carbon dioxide has been detected. A value of 'false' means that carbon dioxide has not been detected.

### 6.30.2 Example URI

/CarbonDioxideResURI

### 6.30.3 Resource Type

The resource type (rt) is defined as: oic.r.sensor.carbondioxide.

### 6.30.4 RAML Definition

```
##RAML 0.8
title: OICCarbonDioxideSensor
version: v1.1.0-20160519

traits:
  - interface :
      queryParameters:
        if:
          enum: ["oic.if.s", "oic.if.baseline"]

/CarbonDioxideResURI:
  description: |
    This resource describes whether carbon dioxide has been sensed or not.
    The value is a boolean.
    A value of 'true' means that carbon dioxide has been detected.
    A value of 'false' means that carbon dioxide has not been detected.

  is : ['interface']
  get:
    responses :
      200:
        body:
          application/json:
            schema: /
              {
                "id":
"http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.carbonDioxide.json#",
                "$schema": "http://json-schema.org/draft-04/schema#",
                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                "title": "Carbon Dioxide Sensor",
                "definitions": {
                  "oic.r.sensor.carbondioxide": {
                    "allOf": [
                      { "$ref": "oic.r.sensor.json#/definitions/oic.r.sensor" }
                    ]
                  }
                }
              }
```

```

6258         },
6259         "type": "object",
6260         "allOf": [
6261             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
6262             { "$ref": "#/definitions/oic.r.sensor.carbondioxide" }
6263         ],
6264         "required": ["value"]
6265     }
6266
6267     example: /
6268     {
6269         "rt": ["oic.r.sensor.carbondioxide"],
6270         "id": "unique_example_id",
6271         "value": true
6272     }
6273

```

## 6.30.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

## 6.30.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/CarbonDioxideResURI		get			

## 6.31 Carbon Monoxide Sensor

### 6.31.1 Introduction

This resource describes whether carbon monoxide has been sensed or not. The value is a boolean. A value of 'true' means that carbon monoxide has been detected. A value of 'false' means that carbon monoxide has not been detected.

### 6.31.2 Example URI

/CarbonMonoxideResURI

### 6.31.3 Resource Type

The resource type (rt) is defined as: oic.r.sensor.carbonmonoxide.

### 6.31.4 RAML Definition

```

6286 #%RAML 0.8
6287 title: OIICarbonMonoxideSensor
6288 version: v1.1.0-20160519
6289 traits:
6290   - interface :
6291       queryParameters:
6292         if:
6293           enum: ["oic.if.s", "oic.if.baseline"]
6294
6295 /CarbonMonoxideResURI:
6296   description: |
6297     This resource describes whether carbon monoxide has been sensed or not.
6298     The value is a boolean.
6299     A value of 'true' means that carbon monoxide has been detected.
6300     A value of 'false' means that carbon monoxide has not been detected.
6301
6302   is : ['interface']
6303   get:
6304     responses :

```

```

6305     200:
6306     body:
6307         application/json:
6308         schema: /
6309             {
6310                 "id":
6311 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.carbonMonoxide.json#",
6312                 "$schema": "http://json-schema.org/draft-04/schema#",
6313                 "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6314 rights reserved.",
6315                 "title": "Carbon Monoxide Sensor",
6316                 "definitions": {
6317                     "oic.r.sensor.carbonmonoxide": {
6318                         "allOf": [
6319                             {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
6320                         ]
6321                     }
6322                 },
6323                 "type": "object",
6324                 "allOf": [
6325                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6326                     {"$ref": "#/definitions/oic.r.sensor.carbonmonoxide"}
6327                 ],
6328                 "required": ["value"]
6329             }
6330
6331     example: /
6332         {
6333             "rt": ["oic.r.sensor.carbonmonoxide"],
6334             "id": "unique_example_id",
6335             "value": true
6336         }
6337

```

### 6.31.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

### 6.31.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/CarbonMonoxideResURI		get			

## 6.32 Auto White Balance

### 6.32.1 Introduction

This resource describes an auto balance on/off feature. The value is a boolean. An AutoWhiteBalance value of 'true' means that the switch is on. An AutoWhiteBalance value of 'false' means that the switch is off.

### 6.32.2 Example URI

/AutoWhiteBalanceResURI

### 6.32.3 Resource Type

The resource type (rt) is defined as: oic.r.colour.autowhitebalance.

### 6.32.4 RAML Definition

```

6350 #%RAML 0.8
6351 title: OICAutoWhiteBalance
6352 version: v1.1.0-20160519
6353 traits:

```

```

6354 - interface :
6355     queryParameters:
6356         if:
6357             enum: ["oic.if.a", "oic.if.baseline"]
6358
6359 /AutoWhiteBalanceResURI:
6360     description: |
6361         This resource describes an auto balance on/off feature.
6362         The value is a boolean.
6363         An AutoWhiteBalance value of 'true' means that the switch is on.
6364         An AutoWhiteBalance value of 'false' means that the switch is off.
6365
6366     is : ['interface']
6367     get:
6368         responses :
6369             200:
6370                 body:
6371                     application/json:
6372                         schema: /
6373                             {
6374                                 "id":
6375 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.autowhitebalance.json#",
6376                                 "$schema": "http://json-schema.org/draft-04/schema#",
6377                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6378 rights reserved.",
6379                                 "title": "Auto White Balance",
6380                                 "definitions": {
6381                                     "oic.r.colour.autowhitebalance": {
6382                                         "type": "object",
6383                                         "properties": {
6384                                             "autoWhiteBalance": {
6385                                                 "type": "boolean",
6386                                                 "description": "Status of the Auto White balance"
6387                                             }
6388                                         }
6389                                     }
6390                                 },
6391                                 "type": "object",
6392                                 "allOf": [
6393                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6394                                     {"$ref": "#/definitions/oic.r.colour.autowhitebalance"}
6395                                 ],
6396                                 "required": [ "autoWhiteBalance" ]
6397                             }
6398
6399                         example: /
6400                             {
6401                                 "rt":          ["oic.r.colour.autowhitebalance"],
6402                                 "id":          "unique_example_id",
6403                                 "autoWhiteBalance": false
6404                             }
6405
6406     post:
6407         body:
6408             application/json:
6409                 schema: /
6410                     {
6411                         "id":
6412 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.autowhitebalance.json#",
6413                         "$schema": "http://json-schema.org/draft-04/schema#",
6414                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
6415 reserved.",

```

```

6416         "title": "Auto White Balance",
6417         "definitions": {
6418             "oic.r.colour.autowhitebalance": {
6419                 "type": "object",
6420                 "properties": {
6421                     "autoWhiteBalance": {
6422                         "type": "boolean",
6423                         "description": "Status of the Auto White balance"
6424                     }
6425                 }
6426             },
6427         },
6428         "type": "object",
6429         "allOf": [
6430             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6431             {"$ref": "#/definitions/oic.r.colour.autowhitebalance"}
6432         ],
6433         "required": [ "autoWhiteBalance" ]
6434     }
6435
6436     example: /
6437     {
6438         "id": "unique_example_id",
6439         "autoWhiteBalance": true
6440     }
6441
6442     responses :
6443     200:
6444         body:
6445             application/json:
6446                 schema: /
6447                 {
6448                     "id":
6449 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.autowhitebalance.json#",
6450                     "$schema": "http://json-schema.org/draft-04/schema#",
6451                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6452 rights reserved.",
6453                     "title": "Auto White Balance",
6454                     "definitions": {
6455                         "oic.r.colour.autowhitebalance": {
6456                             "type": "object",
6457                             "properties": {
6458                                 "autoWhiteBalance": {
6459                                     "type": "boolean",
6460                                     "description": "Status of the Auto White balance"
6461                                 }
6462                             }
6463                         }
6464                     },
6465                     "type": "object",
6466                     "allOf": [
6467                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6468                         {"$ref": "#/definitions/oic.r.colour.autowhitebalance"}
6469                     ],
6470                     "required": [ "autoWhiteBalance" ]
6471                 }
6472
6473     example: /
6474     {
6475         "id": "unique_example_id",
6476         "autoWhiteBalance": true
6477     }
6478

```

### 6.32.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
autoWhiteBalance	boolean	yes		Status of the Auto White balance

### 6.32.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/AutoWhiteBalanceResURI		get	post		

## 6.33 Colour Saturation

### 6.33.1 Introduction

This resource describes a Colour saturation value. The value is an integer. A coloursaturation has a range of [0,100]. A coloursaturation value of 0 means producing black and white images. A coloursaturation value of 50 means producing device specific normal colour images. A coloursaturation value of 100 means producing device very full colour images.

### 6.33.2 Example URI

/ColourSaturationResURI

### 6.33.3 Resource Type

The resource type (rt) is defined as: oic.r.colour.saturation.

### 6.33.4 RAML Definition

```
##RAML 0.8
title: OICColourSaturation
version: v1.1.0-20160519

traits:
  - interface :
      queryParameters:
        if:
          enum: ["oic.if.a", "oic.if.baseline"]

/ColourSaturationResURI:
  description: |
    This resource describes a Colour saturation value.
    The value is an integer.
    A coloursaturation has a range of [0,100].
    A coloursaturation value of 0 means producing black and white images.
    A coloursaturation value of 50 means producing device specific normal colour images.
    A coloursaturation value of 100 means producing device very full colour images.

  is : ['interface']

  get:
    responses :
      200:
        body:
          application/json:
            schema: /
              {
                "id":
"http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.saturation.json#",
                "$schema": "http://json-schema.org/draft-04/schema#",
                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                "title": "Colour Saturation",
                "definitions": {
```



```

6525         "oic.r.colour.saturation": {
6526             "type": "object",
6527             "properties": {
6528                 "colourSaturation": {
6529                     "type": "integer",
6530                     "description": "The colour saturation value",
6531                     "minimum": 0,
6532                     "maximum": 100
6533                 }
6534             }
6535         },
6536     },
6537     "type": "object",
6538     "allOf": [
6539         { "$ref": "oic.core.json#/definitions/oic.core" },
6540         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
6541         { "$ref": "#/definitions/oic.r.colour.saturation" }
6542     ],
6543     "required": [ "colourSaturation" ]
6544 }
6545
6546 example: /
6547 {
6548     "rt": [ "oic.r.colour.saturation" ],
6549     "id": "unique_example_id",
6550     "colourSaturation": 50
6551 }
6552
6553 post:
6554 body:
6555 application/json:
6556
6557     schema: /
6558     {
6559         "id":
6560 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.saturation.json#",
6561         "$schema": "http://json-schema.org/draft-04/schema#",
6562         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
6563 reserved.",
6564         "title": "Colour Saturation",
6565         "definitions": {
6566             "oic.r.colour.saturation": {
6567                 "type": "object",
6568                 "properties": {
6569                     "colourSaturation": {
6570                         "type": "integer",
6571                         "description": "The colour saturation value",
6572                         "minimum": 0,
6573                         "maximum": 100
6574                     }
6575                 }
6576             }
6577         },
6578         "type": "object",
6579         "allOf": [
6580             { "$ref": "oic.core.json#/definitions/oic.core" },
6581             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
6582             { "$ref": "#/definitions/oic.r.colour.saturation" }
6583         ],
6584         "required": [ "colourSaturation" ]
6585     }
6586
6587 example: /
6588 {
6589     "id": "unique_example_id",
6590     "colourSaturation": 60
6591 }

```

```

6592     responses :
6593         200:
6594             body:
6595                 application/json:
6596                     schema: /
6597                         {
6598                             "id":
6599 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.colour.saturation.json#",
6600                             "$schema": "http://json-schema.org/draft-04/schema#",
6601                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6602 rights reserved.",
6603                             "title": "Colour Saturation",
6604                             "definitions": {
6605                                 "oic.r.colour.saturation": {
6606                                     "type": "object",
6607                                     "properties": {
6608                                         "colourSaturation": {
6609                                             "type": "integer",
6610                                             "description": "The colour saturation value",
6611                                             "minimum": 0,
6612                                             "maximum": 100
6613                                         }
6614                                     }
6615                                 },
6616                             "type": "object",
6617                             "allOf": [
6618                                 { "$ref": "oic.core.json#/definitions/oic.core" },
6619                                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
6620                                 { "$ref": "#/definitions/oic.r.colour.saturation" }
6621                             ],
6622                             "required": [ "colourSaturation" ]
6623                         }
6624
6625
6626                     example: /
6627                         {
6628                             "id": "unique_example_id",
6629                             "colourSaturation": 60
6630                         }
6631

```

### 6.33.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
colourSaturation	integer	yes		The colour saturation value

### 6.33.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/ColourSaturationResURI		get	post		

## 6.34 Contact Sensor

### 6.34.1 Introduction

This resource describes whether a contact sensor has been tripped or not. Typical use case is in Security Systems detecting window or door open. The value is a boolean. A value of 'true' means that contact has been broken (open). A value of 'false' means that contact is in place (closed).

### 6.34.2 Example URI

/ContactResURI

### 6.34.3 Resource Type

The resource type (rt) is defined as: oic.r.sensor.contact.

#### 6.34.4 RAML Definition

```
6643 #%RAML 0.8
6644 title: OIContactSensor
6645 version: v1.1.0-20160519
6646
6647 traits:
6648   - interface :
6649     queryParameters:
6650       if:
6651         enum: ["oic.if.s", "oic.if.baseline"]
6652
6653 /ContactResURI:
6654   description: |
6655     This resource describes whether a contact sensor has been tripped or not.
6656     Typical use case is in Security Systems detecting window or door open.
6657     The value is a boolean.
6658     A value of 'true' means that contact has been broken (open).
6659     A value of 'false' means that contact is in place (closed).
6660
6661   is : ['interface']
6662
6663   get:
6664     responses :
6665       200:
6666         body:
6667           application/json:
6668             schema: /
6669               {
6670                 "id":
6671                   "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.contact.json#",
6672                 "$schema": "http://json-schema.org/draft-04/schema#",
6673                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6674                   rights reserved.",
6675                 "title": "Contact Sensor",
6676                 "definitions": {
6677                   "oic.r.sensor.contact": {
6678                     "allOf": [
6679                       {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
6680                     ]
6681                   },
6682                   "type": "object",
6683                   "allOf": [
6684                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6685                     {"$ref": "#/definitions/oic.r.sensor.contact"}
6686                   ],
6687                   "required": ["value"]
6688                 }
6689
6690             example: /
6691               {
6692                 "rt": ["oic.r.sensor.contact"],
6693                 "id": "unique_example_id",
6694                 "value": true
6695               }
6696
```

#### 6.34.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

6698 **6.34.6 CRUDN behavior**

Resource	Create	Read	Update	Delete	Notify
/ContactResURI		get			

6699 **6.35 Demand Response Load Control (DRLC).**6700 **6.35.1 Introduction**

6701 This resource describes any to be applied or currently being applied DRLC signal. The DRType is  
 6702 the ApplianceLoadReductionType defined in Zigbee/HA Smart Energy Profile 2.0. Start is a string  
 6703 containing an ISO8601 encoded start time. The duration value is in minutes. Override indicates  
 6704 whether the consumer has overridden the request (true) or not (false).

6705 **6.35.2 Example URI**

6706 /DRLCResURI

6707 **6.35.3 Resource Type**

6708 The resource type (rt) is defined as: oic.r.energy.drlc.

6709 **6.35.4 RAML Definition**

```

6710 ##RAML 0.8
6711 title: OICDRLC
6712 version: v1.1.0-20160519
6713 traits:
6714   - interface :
6715       queryParameters:
6716         if:
6717           enum: ["oic.if.b", "oic.if.baseline"]
6718
6719 /DRLCResURI:
6720   description: |
6721     This resource describes any to be applied or currently being applied DRLC signal.
6722     The DRType is the ApplianceLoadReductionType defined in Zigbee/HA Smart Energy Profile 2.0.
6723     Start is a string containing an ISO8601 encoded start time.
6724     The duration value is in minutes.
6725     Override indicates whether the consumer has overridden the request (true) or not (false).
6726
6727   is : ['interface']
6728   get:
6729     description: |
6730       Provides the current DRLC action that is being applied.
6731
6732   responses :
6733     200:
6734       body:
6735         application/json:
6736           schema: /
6737             {
6738               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.drlc.json#",
6739               "$schema": "http://json-schema.org/draft-04/schema#",
6740               "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6741 rights reserved.",
6742               "definitions": {
6743                 "oic.r.energy.drlc": {
6744                   "type": "object",
6745                   "properties": {
6746                     "DRType": {
6747                       "type": "integer",
6748                       "description": "The to be applied demand-response type"
6749

```

```

6750         "start": {
6751             "type": "string",
6752             "description": "The start time for the application of DR"
6753         },
6754         "duration": {
6755             "type": "integer",
6756             "description": "The duration of the to be applied DR type"
6757         },
6758         "override": {
6759             "type": "boolean",
6760             "description": "Whether the consumer has overridden the application of DR"
6761         }
6762     }
6763 }
6764 },
6765 "type": "object",
6766 "allOf": [
6767     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6768     {"$ref": "#/definitions/oic.r.energy.drlc"}
6769 ],
6770 "required": ["DRType"]
6771 }
6772
6773 example: /
6774 {
6775     "rt": ["oic.r.energy.drlc"],
6776     "id": "unique_example_id",
6777     "DRType": 1,
6778     "start": "2015-01-09T16:45Z",
6779     "duration": 10,
6780     "override": false
6781 }
6782
6783 put:
6784     description: |
6785         Provides the DRLC action to be applied to the device or updates an existing action.
6786
6787     body:
6788         application/json:
6789             schema: /
6790             {
6791                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.drlc.json#",
6792                 "$schema": "http://json-schema.org/draft-04/schema#",
6793                 "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
6794 reserved.",
6795                 "definitions": {
6796                     "oic.r.energy.drlc": {
6797                         "type": "object",
6798                         "properties": {
6799                             "DRType": {
6800                                 "type": "integer",
6801                                 "description": "The to be applied demand-response type"
6802                             },
6803                             "start": {
6804                                 "type": "string",
6805                                 "description": "The start time for the application of DR"
6806                             },
6807                             "duration": {
6808                                 "type": "integer",
6809                                 "description": "The duration of the to be applied DR type"
6810                             },
6811                             "override": {
6812                                 "type": "boolean",
6813                                 "description": "Whether the consumer has overridden the application of DR"
6814                             }
6815                         }
6816                     }
6817                 }
6818             }

```

```

6817         },
6818         "type": "object",
6819         "allOf": [
6820             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6821             {"$ref": "#/definitions/oic.r.energy.drlc"}
6822         ],
6823         "required": ["DRTYPE"]
6824     }
6825
6826     example: /
6827     {
6828         "rt":         ["oic.r.energy.drlc"],
6829         "id":         "unique_example_id",
6830         "DRTYPE":     1,
6831         "start":      "2015-01-09T16:45Z",
6832         "duration":   10
6833     }
6834
6835     responses :
6836     200:
6837         description: |
6838             Indicates that the target DRLC resource was changed.
6839             The new resource attributes are provided in the response.
6840
6841         body:
6842             application/json:
6843                 schema: /
6844                 {
6845                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.drlc.json#",
6846                     "$schema": "http://json-schema.org/draft-04/schema#",
6847                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
6848 rights reserved.",
6849                     "definitions": {
6850                         "oic.r.energy.drlc": {
6851                             "type": "object",
6852                             "properties": {
6853                                 "DRTYPE": {
6854                                     "type": "integer",
6855                                     "description": "The to be applied demand-response type"
6856                                 },
6857                                 "start": {
6858                                     "type": "string",
6859                                     "description": "The start time for the application of DR"
6860                                 },
6861                                 "duration": {
6862                                     "type": "integer",
6863                                     "description": "The duration of the to be applied DR type"
6864                                 },
6865                                 "override": {
6866                                     "type": "boolean",
6867                                     "description": "Whether the consumer has overridden the application of DR"
6868                                 }
6869                             }
6870                         }
6871                     },
6872                     "type": "object",
6873                     "allOf": [
6874                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
6875                         {"$ref": "#/definitions/oic.r.energy.drlc"}
6876                     ],
6877                     "required": ["DRTYPE"]
6878                 }
6879
6880     example: /

```

```

6881     {
6882         "DRType": 1,
6883         "id": "unique_example_id",
6884         "start": "2015-01-09T17:00Z",
6885         "duration": 15,
6886         "override": false
6887     }
6888
6889 201:
6890     description: |
6891         Indicates successful creation of the DRLC resource with the attributes provided.
6892         The response includes the URI of the created resource.
6893
6894     body:
6895         application/json:
6896             schema: /
6897                 {
6898                     "id": "http://openinterconnect.org/iotdatamodels/chemas/oic.create.json#",
6899                     "$schema": "http://json-schema.org/draft-04/schema#",
6900                     "description" : "Copyright (c) 2016 Open Connectivity Foundation, Inc. All rights
6901 reserved.",
6902                     "definitions": {
6903                         "oic.create": {
6904                             "type": "object",
6905                             "properties": {
6906                                 "ResURI": { "type": "string"}
6907                             }
6908                         }
6909                     },
6910                     "type": "object",
6911                     "allOf": [
6912                         { "$ref": "#/definitions/oic.create" }
6913                     ]
6914                 }
6915
6916             example: /
6917                 {
6918                     "ResURI": "/MyDevice/MyDRLCURI"
6919                 }
6920

```

### 6.35.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
DRType	integer	yes		The to be applied demand-response type
start	string			The start time for the application of DR
duration	integer			The duration of the to be applied DR type
override	boolean			Whether the consumer has overridden the application of DR

### 6.35.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/DRLCResURI	put	get			

## 6.36 Energy Overload/Circuit Breaker

### 6.36.1 Introduction

This resource describes whether an energy overload detector/circuit breaker is currently tripped. The value is a boolean. A value of 'true' means that energy overload has been tripped. A value of 'false' means that energy overload has not been tripped.

### 6.36.2 Example URI

/EnergyOverloadResURI

### 6.36.3 Resource Type

The resource type (rt) is defined as: oic.r.energy.overload.

### 6.36.4 RAML Definition

```

#%RAML 0.8
title: OICEnergyOverload
version: v1.1.0-20160519

traits:
- interface :
  queryParameters:
    if:
      enum: ["oic.if.s", "oic.if.baseline"]

/energyOverloadResURI:

  description: |
    This resource describes whether an energy overload detector/circuit breaker
    is currently tripped.
    The value is a boolean.
    A value of 'true' means that energy overload has been tripped.
    A value of 'false' means that energy overload has not been tripped.

  is : ['interface']

  get:
    responses :
      200:
        body:
          application/json:
            schema: /
              {
                "id":
"http://openinterconnect.org/iotdatamodels/schemas/oic.r.energy.overload.json#",
                "$schema": "http://json-schema.org/draft-04/schema#",
                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                "title": "Energy Overload Sensor",
                "definitions": {
                  "oic.r.energy.overload": {
                    "allOf": [
                      { "$ref": "oic.r.sensor.json#/definitions/oic.r.sensor" }
                    ]
                  }
                },
                "type": "object",
                "allOf": [
                  { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
                  { "$ref": "#/definitions/oic.r.energy.overload" }
                ],
                "required": ["value"]
              }

```



```

6979         example: /
6980         {
6981             "rt":    ["oic.r.energy.overload"],
6982             "id":    "unique_example_id",
6983             "value": true
6984         }
6985

```

### 6986 6.36.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

### 6987 6.36.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/EnergyOverloadResURI		get			

### 6988 6.37 Generic Sensor

#### 6989 6.37.1 Introduction

6990 This resource describes whether some value or property or entity has been sensed or not. The  
6991 value is a boolean. A value of 'true' means that the target has been sensed. A value of 'false'  
6992 means that the target has not been sensed.

#### 6993 6.37.2 Example URI

6994 /GenericSensorResURI

#### 6995 6.37.3 Resource Type

6996 The resource type (rt) is defined as: oic.r.sensor.

#### 6997 6.37.4 RAML Definition

```

6998 #%RAML 0.8
6999 title: OICGenericSensor
7000 version: v1.1.0-20160519
7001 traits:
7002   - interface :
7003       queryParameters:
7004           if:
7005               enum: ["oic.if.s", "oic.if.baseline"]
7006
7007 /GenericSensorResURI:
7008     description: |
7009         This resource describes whether some value or property or entity has been sensed or not.
7010         The value is a boolean.
7011         A value of 'true' means that the target has been sensed.
7012         A value of 'false' means that the target has not been sensed.
7013
7014     is : ['interface']
7015     get:
7016         responses :
7017             200:
7018                 body:
7019                     application/json:
7020                         schema: /
7021                             {
7022                                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.json#",
7023                                 "$schema": "http://json-schema.org/draft-04/schema#",

```

```

7024         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7025 rights reserved.",
7026         "title": "Generic Sensor",
7027         "definitions": {
7028             "oic.r.sensor": {
7029                 "type": "object",
7030                 "properties": {
7031                     "value": {
7032                         "type": "boolean",
7033                         "readOnly": true,
7034                         "description": "true = sensed, false = not sensed."
7035                     }
7036                 }
7037             }
7038         },
7039         "type": "object",
7040         "allOf": [
7041             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7042             { "$ref": "#/definitions/oic.r.sensor" }
7043         ]
7044     }
7045
7046     example: /
7047     {
7048         "rt":      ["oic.r.sensor"],
7049         "id":      "unique_example_id",
7050         "value":   true
7051     }
7052

```

### 7053 6.37.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean		Read Only	true = sensed, false = not sensed.

### 7054 6.37.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/GenericSensorResURI		get			

## 7055 6.38 Glass Break Sensor

### 7056 6.38.1 Introduction

7057 This resource describes a glass break sensor. The value is a boolean. A value of 'true' means that  
7058 glass break has been sensed. A value of 'false' means that glass break not been sensed.

### 7059 6.38.2 Example URI

7060 /GlassBreakResURI

### 7061 6.38.3 Resource Type

7062 The resource type (rt) is defined as: oic.r.sensor.glassbreak.

### 7063 6.38.4 RAML Definition

```

7064 #%RAML 0.8
7065 title: OICGlassBreakSensor
7066 version: v1.1.0-20160519
7067 traits:
7068   - interface :
7069       queryParameters:
7070           if:
7071               enum: ["oic.if.s", "oic.if.baseline"]
7072

```

```

7073 /GlassBreakResURI:
7074     description: |
7075         This resource describes a glass break sensor.
7076         The value is a boolean.
7077         A value of 'true' means that glass break has been sensed.
7078         A value of 'false' means that glass break not been sensed.
7079
7080     is : ['interface']
7081
7082     get:
7083         responses :
7084             200:
7085                 body:
7086                     application/json:
7087                         schema: /
7088                             {
7089                                 "id":
7090                                 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.glassBreak.json#",
7091                                 "$schema": "http://json-schema.org/draft-04/schema#",
7092                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7093                                 rights reserved.",
7094                                 "title": "Glass Break Sensor",
7095                                 "definitions": {
7096                                     "oic.r.sensor.glassbreak": {
7097                                         "allOf": [
7098                                             { "$ref": "oic.r.sensor.json#/definitions/oic.r.sensor" }
7099                                         ]
7100                                     },
7101                                 "type": "object",
7102                                 "allOf": [
7103                                     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7104                                     { "$ref": "#/definitions/oic.r.sensor.glassbreak" }
7105                                 ],
7106                                 "required": ["value"]
7107                             }
7108
7109                 example: /
7110                     {
7111                         "rt":      ["oic.r.sensor.glassbreak"],
7112                         "id":      "unique_example_id",
7113                         "value":   true
7114                     }
7115

```

### 7116 6.38.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

### 7117 6.38.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/GlassBreakResURI		get			

## 7118 6.39 Heart Rate Zone

### 7119 6.39.1 Introduction

7120 This resource describes a measured heart rate by the current Zone using the Zoladz method The  
7121 Zoladz method defines Zones based on maximum heart rate; Zone 1 is the lowest, Zone 5 is the  
7122 highest. The heartRateZone is an enumeration containing one of: "Zone1", "Zone2", "Zone3",  
7123 "Zone4", "Zone5".

```

7124 6.39.2 Example URI
7125 /HeartRateZoneResURI
7126 6.39.3 Resource Type
7127 The resource type (rt) is defined as: oic.r.sensor.heart.zone.
7128 6.39.4 RAML Definition
7129 #%RAML 0.8
7130 title: OICHeartRateZone
7131 version: v1.1.0-20160519
7132 traits:
7133   - interface :
7134       queryParameters:
7135         if:
7136           enum: ["oic.if.s", "oic.if.baseline"]
7137
7138 /HeartRateZoneResURI:
7139   description: |
7140     This resource describes a measured heart rate by the current Zone using the Zoladz method
7141     The Zoladz method defines Zones based on maximum heart rate; Zone 1 is the lowest, Zone 5 is
7142     the highest.
7143     The heartRateZone is an enumeration containing one of: "Zone1", "Zone2", "Zone3", "Zone4",
7144     "Zone5".
7145
7146   is : ['interface']
7147   get:
7148     responses :
7149       200:
7150         body:
7151           application/json:
7152             schema: /
7153               {
7154                 "id":
7155 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.heart.zone.json#",
7156 "$schema": "http://json-schema.org/draft-04/schema#",
7157 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7158 rights reserved.",
7159 "title": "Heart Rate Zone",
7160 "definitions": {
7161   "oic.r.sensor.heart.zone": {
7162     "properties": {
7163       "heartRateZone": {
7164         "enum": ["Zone1","Zone2","Zone3", "Zone4", "Zone5"],
7165         "readOnly": true,
7166         "description": "Current heart rate zone based on the Zoladz system."
7167       }
7168     }
7169   }
7170 },
7171 "type": "object",
7172 "allOf": [
7173   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
7174   {"$ref": "#/definitions/oic.r.sensor.heart.zone"}
7175 ],
7176 "required": ["heartRateZone"]
7177 }
7178
7179   example: /
7180     {
7181       "rt":          ["oic.r.sensor.heart.zone"],
7182       "id":          "unique_example_id",

```

```

7183         "heartRateZone": "Zone3"
7184     }
7185

```

### 6.39.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
heartRateZone	multiple types: see schema	yes	Read Only	Current heart rate zone based on the Zoladz system.

### 6.39.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/HeartRateZoneResURI		get			

## 6.40 Illuminance Sensor

### 6.40.1 Introduction

This resource describes an illuminance sensor. Illuminance is a float and represents the sensed luminous flux per unit area in lux.

### 6.40.2 Example URI

/IlluminanceSensorResURI

### 6.40.3 Resource Type

The resource type (rt) is defined as: oic.r.sensor.illuminance.

### 6.40.4 RAML Definition

```

7197 #%RAML 0.8
7198 title: OICIlluminanceSensor
7199 version: v1.1.0-20160519
7200 traits:
7201   - interface :
7202     queryParameters:
7203       if:
7204         enum: ["oic.if.s", "oic.if.baseline"]
7205
7206 /IlluminanceSensorResURI:
7207   description: |
7208     This resource describes an illuminance sensor.
7209     Illuminance is a float and represents the sensed luminous flux per unit area in lux.
7210
7211   is : ['interface']
7212   get:
7213     responses :
7214       200:
7215         body:
7216           application/json:
7217             schema: /
7218               {
7219                 "id":
7220 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.illuminance.json#",
7221                 "$schema": "http://json-schema.org/draft-04/schema#",
7222                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7223 rights reserved.",
7224                 "title": "Illuminance Sensor",
7225                 "definitions": {
7226                   "oic.r.sensor.illuminance": {
7227                     "properties": {

```

```

7228         "illuminance": {
7229             "type": "number",
7230             "readOnly": true,
7231             "description": "Sensed luminous flux per unit area in lux."
7232         }
7233     }
7234 }
7235 },
7236 "type": "object",
7237 "allOf": [
7238     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7239     { "$ref": "#/definitions/oic.r.sensor.illuminance" }
7240 ],
7241 "required": ["illuminance"]
7242 }
7243
7244 example: /
7245 {
7246     "rt":          ["oic.r.sensor.illuminance"],
7247     "id":          "unique_example_id",
7248     "illuminance": 450.0
7249 }
7250

```

#### 6.40.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
illuminance	number	yes	Read Only	Sensed luminous flux per unit area in lux.

#### 6.40.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/IlluminanceSensorResURI		get			

### 6.41 Magnetic Field Direction Sensor

#### 6.41.1 Introduction

This resource describes the direction of the Earth's magnetic field at the observer's current point in space. Typical use case includes measurement of compass readings on a personal device. The value is an array containing Hx, Hy, Hz (in that order) each of which are floats. Each of Hx, Hy and Hz are expressed in A/m (Amperes per metre)

#### 6.41.2 Example URI

/MagneticFieldDirectionResURI

#### 6.41.3 Resource Type

The resource type (rt) is defined as: oic.r.sensor.magneticfielddirection.

#### 6.41.4 RAML Definition

```

7264 #%RAML 0.8
7265 title: OICMagneticFieldDirection
7266 version: v1.1.0-20160519
7267 traits:
7268   - interface :
7269       queryParameters:
7270         if:
7271             enum: ["oic.if.s", "oic.if.baseline"]
7272
7273 /MagneticFieldDirectionResURI:
7274     description: |

```

This resource describes the direction of the Earth's magnetic field at the observer's current point in space.  
 Typical use case includes measurement of compass readings on a personal device.  
 The value is an array containing Hx, Hy, Hz (in that order) each of which are floats.  
 Each of Hx, Hy and Hz are expressed in A/m (Amperes per metre)

```

is : ['interface']

get:
  responses :
    200:
      body:
        application/json:
          schema: /
            {
              "id":
"http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.magneticFieldDirection.json#",
              "$schema": "http://json-schema.org/draft-04/schema#",
              "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
              "title": "Magnetic Field Direction Sensor",
              "definitions": {
                "oic.r.sensor.magneticfielddirection": {
                  "properties": {
                    "value": {
                      "type": "array",
                      "readOnly": true,
                      "description": "Array containing Hx, Hy, Hz.",
                      "minItems": 3,
                      "maxItems": 3,
                      "items": {
                        "type": "number"
                      }
                    }
                  }
                }
              },
              "type": "object",
              "allOf": [
                {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
                {"$ref": "#/definitions/oic.r.sensor.magneticfielddirection"}
              ],
              "required": ["value"]
            }

          example: /
            {
              "rt":      ["oic.r.sensor.magneticfielddirection"],
              "id":      "unique_example_id",
              "value":    [100.0,15.0,90.0]
            }

```

## 6.41.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	array: see schema	yes	Read Only	Array containing Hx, Hy, Hz.

## 6.41.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/MagneticFieldDirectionResURI		get			

## 7328 6.42 Media

### 7329 6.42.1 Introduction

7330 This resource specifies the media types that an OCF Server supports. The resource is an array of  
7331 media elements. Each element contains: A URL at which the specified media type can be  
7332 accessed. A string array containing the definition of the media using SDP. Each entry in the  
7333 sdp array is an SDP line. Each line shall follow the SDP description syntax as defined in the  
7334 SDP specification. The SDP specification can be found at <http://tools.ietf.org/html/rfc4566>.

### 7335 6.42.2 Example URI

7336 /MediaResURI

### 7337 6.42.3 Resource Type

7338 The resource type (rt) is defined as: oic.r.media.

### 7339 6.42.4 RAML Definition

7340 `##RAML 0.8`

7341 `title: OICMedia`

7342 `version: v1.1.0-20160519`

7343 `traits:`

7344 `- interface :`

7345  `queryParameters:`

7346  `if:`

7347  `enum: ["oic.if.s", "oic.if.baseline"]`

7348

7349 `/MediaResURI:`

7350  `description: |`

7351  `This resource specifies the media types that an OCF Server supports.`

7352  `The resource is an array of media elements`

7353  `Each element contains:`

7354  `A URL at which the specified media type can be accessed.`

7355  `A string array containing the definition of the media using SDP.`

7356  `Each entry in the sdp array is an SDP line.`

7357  `Each line shall follow the SDP description syntax as defined in the SDP specification.`

7358  `The SDP specification can be found at http://tools.ietf.org/html/rfc4566.`

7359

7360 `is : ['interface']`

7361 `get:`

7362  `description: |`

7363  `Retrieves the current media resource.`

7364

7365 `responses :`

7366  `200:`

7367  `body:`

7368  `application/json:`

7369  `schema: /`

7370  `{`

7371  `"id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.media.json#",`

7372  `"$schema": "http://json-schema.org/draft-04/schema#",`

7373  `"description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All`

7374 `rights reserved.",`

7375  `"title": "Media",`

7376  `"definitions": {`

7377  `"oic.r.media": {`

7378  `"properties": {`

7379  `"media": {`

7380  `"type": "array",`

7381  `"items": {`

7382  `"type": "object",`



```

7383         "properties": {
7384             "url": {
7385                 "type": "string",
7386                 "description": "url for the media instance"
7387             },
7388             "sdp": {
7389                 "type": "array",
7390                 "description": "Array of strings, one per SDP line",
7391                 "items": {
7392                     "type": "string",
7393                     "description": "SDP media or attribute line"
7394                 }
7395             }
7396         }
7397     }
7398 }
7399 }
7400 }
7401 },
7402 "type": "object",
7403 "allOf": [
7404     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
7405     {"$ref": "#/definitions/oic.r.media"}
7406 ],
7407 "required": ["media"]
7408 }
7409
7410 example: /
7411 {
7412     "rt": ["oic.r.media"],
7413     "id": "unique_example_id",
7414     "media": [
7415         {
7416             "url": "some example url",
7417             "sdp": [
7418                 "m=video 1 RTP/AVP 96",
7419                 "a=rtpmap:96 H264/9000",
7420                 "a=fmtp:96 profile-level-id=42A028;packetization-mode=1"
7421             ]
7422         },
7423         {
7424             "url": "some other example1 url",
7425             "sdp": [
7426                 "m=audio 2 RTP/AVP 97",
7427                 "a=rtpmap:97 MP4A-LATM/90000"
7428             ]
7429         },
7430         {
7431             "url": "some other example2 url",
7432             "sdp": [
7433                 "m=video 3 RTP/AVP 98",
7434                 "a=rtpmap:98 jpeg/90000",
7435                 "a=fmtp:98 sampling=YCbCr-4:2:0;width=256;height=256"
7436             ]
7437         }
7438     ]
7439 }
7440

```

#### 6.42.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
media	array: see schema	yes		
url (media)	string			url for the media instance
sdp (media)	array: see schema			Array of strings, one per SDP line

## 6.42.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/MediaResURI		get			

## 6.43 Media Source

### 6.43.1 Introduction

This resource defines a media source that exists on a device. The source can be an input source or output source, this resource is agnostic of that. The `sourceName` specifies a pre-defined media input or output (e.g. "HDMI", "DVI") The `sourceNumber` is a numeric identifier to specify the instance (e.g. "PC", 1) The `sourceType` is an enumeration defining whether the source is audio, video or both. The `status` is a boolean that determines if the specific source instance is selected or not. A status of true means that the source instance is selected. A status of false means that the source instance is not selected.

### 6.43.2 Example URI

/mediaSourceResURI

### 6.43.3 Resource Type

The resource type (rt) is defined as: oic.r.mediasource.

### 6.43.4 RAML Definition

```
##RAML 0.8
title: OIC Media Source
version: v1.1.0-20160519

traits:
  - interface :
      queryParameters:
        if:
          enum: ["oic.if.a", "oic.if.baseline"]

/mediaSourceResURI:
  description: |
    This resource defines a media source that exists on a device.
    The source can be an input source or output source, this resource is agnostic of that.
    The sourceName specifies a pre-defined media input or output (e.g. "HDMI", "DVI")
    The sourceNumber is a numeric identifier to specify the instance (e.g
    "PC", 1)
    The sourceType is an enumeration defining whether the source is audio, video or both.
    The status is a boolean that determines if the specific source instance is selected or not.
    A status of true means that the source instance is selected.
    A status of false means that the source instance is not selected.

  is : ['interface']
  get:
    responses :
      200:
        body:
          application/json:
            schema: /
              {
                "$schema": "http://json-schema.org/draft-04/schema#",
                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSource.json#",
                "title": "Media Source",
                "definitions": {
                  "oic.r.mediasource": {
                    "properties": {
```

```

7494         "sourceName": {
7495             "type": "string",
7496             "description": "Specifies a pre-defined media input or output"
7497         },
7498         "sourceNumber": {
7499             "type": [ "integer", "string" ],
7500             "readOnly": true,
7501             "description": "Numeric identifier to specify the instance"
7502         },
7503         "sourceType": {
7504             "enum": [ "audioOnly", "videoOnly", "audioPlusVideo" ],
7505             "readOnly": true,
7506             "description": "Specifies the type of the source"
7507         },
7508         "status": {
7509             "type": "boolean",
7510             "description": "Specifies if the specific source instance is selected or
7511 not "
7512         }
7513     }
7514 },
7515 },
7516 "type": "object",
7517 "allOf": [
7518     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7519     { "$ref": "#/definitions/oic.r.mediasource" }
7520 ],
7521 "required": [ "sourceName", "status" ]
7522 }
7523
7524 example: /
7525 {
7526     "rt": [ "oic.r.mediasource" ],
7527     "id": "unique_example_id",
7528     "sourceName": "HDMI-CEC",
7529     "sourceNumber": "1",
7530     "sourceType": "audioPlusVideo",
7531     "status": true
7532 }
7533
7534 post:
7535     description: |
7536         Changes the status of the source.
7537         Allows changes of the sourceName and the status.
7538
7539     body:
7540         application/json:
7541             schema: /
7542                 {
7543                     "$schema": "http://json-schema.org/draft-04/schema#",
7544                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
7545 reserved.",
7546                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSource.json#",
7547                     "title": "Media Source",
7548                     "definitions": {
7549                         "oic.r.mediasource": {
7550                             "properties": {
7551                                 "sourceName": {
7552                                     "type": "string",
7553                                     "description": "Specifies a pre-defined media input or output"
7554                                 },
7555                                 "sourceNumber": {
7556                                     "type": [ "integer", "string" ],
7557                                     "readOnly": true,
7558                                     "description": "Numeric identifier to specify the instance"
7559                                 },
7560                                 "sourceType": {

```

```

7561         "enum": [ "audioOnly", "videoOnly", "audioPlusVideo" ],
7562         "readOnly": true,
7563         "description": "Specifies the type of the source"
7564     },
7565     "status": {
7566         "type": "boolean",
7567         "description": "Specifies if the specific source instance is selected or not"
7568     }
7569 }
7570 }
7571 },
7572 "type": "object",
7573 "allOf": [
7574     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
7575     {"$ref": "#/definitions/oic.r.mediasource"}
7576 ],
7577 "required": [ "sourceName", "status" ]
7578 }
7579
7580 example: /
7581 {
7582     "id":          "unique_example_id",
7583     "sourceName":  "my new name",
7584     "sourceNumber": "1",
7585     "status":      true
7586 }
7587
7588 responses :
7589     200:
7590         body:
7591             application/json:
7592                 schema: /
7593                     {
7594                         "$schema": "http://json-schema.org/draft-04/schema#",
7595                         "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7596 rights reserved.",
7597                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSource.json#",
7598                         "title": "Media Source",
7599                         "definitions": {
7600                             "oic.r.mediasource": {
7601                                 "properties": {
7602                                     "sourceName": {
7603                                         "type": "string",
7604                                         "description": "Specifies a pre-defined media input or output"
7605                                     },
7606                                     "sourceNumber": {
7607                                         "type": [ "integer", "string" ],
7608                                         "readOnly": true,
7609                                         "description": "Numeric identifier to specify the instance"
7610                                     },
7611                                     "sourceType": {
7612                                         "enum": [ "audioOnly", "videoOnly", "audioPlusVideo" ],
7613                                         "readOnly": true,
7614                                         "description": "Specifies the type of the source"
7615                                     },
7616                                     "status": {
7617                                         "type": "boolean",
7618                                         "description": "Specifies if the specific source instance is selected or
7619 not"
7620                                     }
7621                                 }
7622                             }
7623                         },
7624                         "type": "object",
7625                         "allOf": [
7626                             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
7627                             {"$ref": "#/definitions/oic.r.mediasource"}
7628                         ]
7629                     }

```

```

7628         ],
7629         "required": ["sourceName", "status"]
7630     }
7631
7632     example: /
7633     {
7634         "id":          "unique_example_id",
7635         "sourceName":  "my new name",
7636         "sourceNumber": "1",
7637         "status":      true
7638     }
7639

```

### 6.43.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
sourceName	string	yes		Specifies a pre-defined media input or output
status	boolean	yes		Specifies if the specific source instance is selected or not
sourceNumber	[u'integer', u'string']		Read Only	Numeric identifier to specify the instance
sourceType	multiple types: see schema		Read Only	Specifies the type of the source

### 6.43.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/mediaSourceResURI		get	post		

## 6.44 Media Source List

### 6.44.1 Introduction

This resource provides the list of media sources available on the device. The sources are an array of mediaSource(s) as separately defined. The basic resource type oic.r.mediaSourceList does not provide any indications whether the source is input or output. Hence, two specializations of this resource exist. When a device exposes input sources then an instance of this resource with a resource type of oic.r.media.input is exposed. When a device exposes output sources then an instance of this resource with a resource type of oic.r.media.output is exposed. A device that exposes both input and output media sources then exposes two instances of this resource, one with a resource type of oic.r.media.input and one with a resource type of oic.r.media.output

### 6.44.2 Example URI

/mediaSourceListResURI

### 6.44.3 Resource Type

The resource type (rt) is defined as: oic.r.mediasourcelist.

### 6.44.4 RAML Definition

```

7657 #%RAML 0.8
7658 title: OICMediaSourceList
7659 version: v1.1.0-20160519
7660 traits:
7661   - interface :
7662       queryParameters:

```

```

7663         if:
7664             enum: ["oic.if.a", "oic.if.baseline"]
7665
7666 /mediaSourceListResURI:
7667     description: |
7668         This resource provides the list of media sources available on the device.
7669         The sources are an array of mediaSource(s) as separately defined.
7670         The basic resource type oic.r.mediaSourceList does not provide any indications whether the
7671 source is input or output.
7672         Hence, two specializations of this resource exist.
7673         When a device exposes input sources then an instance of this resource with a resource type of
7674 oic.r.media.input is exposed.
7675         When a device exposes output sources then an instance of this resource with a resource type of
7676 oic.r.media.output is exposed.
7677         A device that exposes both input and output media sources then exposes two instances of this
7678 resource,
7679         one with a resource type or oic.r.media.input and one with a resource type of
7680 oic.r.media.output
7681
7682     is : ['interface']
7683
7684     get:
7685         responses :
7686             200:
7687                 body:
7688                     application/json:
7689                         schema: /
7690                             {
7691                                 "$schema": "http://json-schema.org/draft-04/schema#",
7692                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7693 rights reserved.",
7694                                 "id":
7695 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
7696                                 "title": "Media Source List",
7697                                 "definitions": {
7698                                     "oic.r.mediasourcelist": {
7699                                         "properties": {
7700                                             "sources": {
7701                                                 "type": "array",
7702                                                 "items": {
7703                                                     "oneOf": [
7704                                                         { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediasource" }
7705                                                     ]
7706                                                 }
7707                                             }
7708                                         }
7709                                     },
7710                                     "type": "object",
7711                                     "allOf": [
7712                                         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7713                                         { "$ref": "#/definitions/oic.r.mediasourcelist" }
7714                                     ],
7715                                     "required": ["sources"]
7716                                 }
7717
7718         example: /
7719             {
7720                 "rt": ["oic.r.mediasourcelist"],
7721                 "id": "unique_example_id",
7722                 "sources": [
7723                     {
7724                         "sourceName": "HDMI-CEC",
7725                         "sourceNumber": "1",
7726                         "sourceType": "audioPlusVideo",
7727                         "status": true

```

```

7728         },
7729         {
7730             "sourceName": "dualRCA",
7731             "sourceNumber": "1",
7732             "sourceType": "audioOnly",
7733             "status": false
7734         }
7735     ]
7736 }
7737
7738 post:
7739     description: |
7740         Changes the status of the source(s).
7741         Allows changes of the sourceName and the status.
7742
7743     body:
7744         application/json:
7745             schema: /
7746                 {
7747                     "$schema": "http://json-schema.org/draft-04/schema#",
7748                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
7749 reserved.",
7750                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
7751                     "title": "Media Source List",
7752                     "definitions": {
7753                         "oic.r.mediasourcelist": {
7754                             "properties": {
7755                                 "sources": {
7756                                     "type": "array",
7757                                     "items": {
7758                                         "oneOf": [
7759                                             { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediasource" }
7760                                         ]
7761                                     }
7762                                 }
7763                             }
7764                         }
7765                     },
7766                     "type": "object",
7767                     "allOf": [
7768                         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7769                         { "$ref": "#/definitions/oic.r.mediasourcelist" }
7770                     ],
7771                     "required": ["sources"]
7772                 }
7773
7774     example: /
7775         {
7776             "id": "unique_example_id",
7777             "sources": [
7778                 {
7779                     "sourceName": "my new name",
7780                     "sourceNumber": "1",
7781                     "status": true
7782                 }
7783             ]
7784         }
7785
7786     responses :
7787         200:
7788             body:
7789                 application/json:
7790                     schema: /

```

```

7791     {
7792         "$schema": "http://json-schema.org/draft-04/schema#",
7793         "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
7794 rights reserved.",
7795         "id":
7796 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
7797         "title": "Media Source List",
7798         "definitions": {
7799             "oic.r.mediasourcelist": {
7800                 "properties": {
7801                     "sources": {
7802                         "type": "array",
7803                         "items": {
7804                             "oneOf": [
7805                                 { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediasource" }
7806                             ]
7807                         }
7808                     }
7809                 }
7810             }
7811         },
7812         "type": "object",
7813         "allOf": [
7814             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7815             { "$ref": "#/definitions/oic.r.mediasourcelist" }
7816         ],
7817         "required": ["sources"]
7818     }
7819
7820 example: /
7821 {
7822     "id": "unique_example_id",
7823     "sources": [
7824         {
7825             "sourceName": "my new name",
7826             "sourceNumber": "1",
7827             "status": true
7828         }
7829     ]
7830 }
7831

```

#### 7832 6.44.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
sources	array: see schema	yes		
sourceName	string	yes		Specifies a pre-defined media input or output
status	boolean	yes		Specifies if the specific source instance is selected or not
sourceNumber	[u'integer', u'string']		Read Only	Numeric identifier to specify the instance
sourceType	multiple types: see schema		Read Only	Specifies the type of the source

#### 7833 6.44.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
----------	--------	------	--------	--------	--------



/mediaSourceListResURI		get	post		
------------------------	--	-----	------	--	--

## 6.44.7 Referenced JSON schemas

### 6.44.7.1 oic.r.mediaSource.json

```

{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights reserved.",
  "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSource.json#",
  "title": "Media Source",
  "definitions": {
    "oic.r.mediasource": {
      "properties": {
        "sourceName": {
          "type": "string",
          "description": "Specifies a pre-defined media input or output"
        },
        "sourceNumber": {
          "type": [ "integer", "string" ],
          "readOnly": true,
          "description": "Numeric identifier to specify the instance"
        },
        "sourceType": {
          "enum": [ "audioOnly", "videoOnly", "audioPlusVideo" ],
          "readOnly": true,
          "description": "Specifies the type of the source"
        },
        "status": {
          "type": "boolean",
          "description": "Specifies if the specific source instance is selected or not"
        }
      }
    }
  },
  "type": "object",
  "allOf": [
    { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
    { "$ref": "#/definitions/oic.r.mediasource" }
  ],
  "required": [ "sourceName", "status" ]
}

```

## 6.45 Media Source Input

### 6.45.1 Introduction

This resource provides the list of input media sources available on the device. The sources are an array of mediaSource(s) as separately defined.

### 6.45.2 Example URI

/mediaSourceInputResURI

### 6.45.3 Resource Type

The resource type (rt) is defined as: oic.r.media.input.

### 6.45.4 RAML Definition

```

#%RAML 0.8
title: OICMediaSourceInput
version: v1.1.0-20160519

traits:
- interface :
    queryParameters:
      if:
        enum: [ "oic.if.a", "oic.if.baseline" ]

```

```

7892 /mediaSourceInputResURI:
7893     description: |
7894         This resource provides the list of input media sources available on the device.
7895         The sources are an array of mediaSource(s) as separately defined.
7896
7897     is : ['interface']
7898
7899     get:
7900         responses :
7901             200:
7902                 body:
7903                     application/json:
7904                         schema: /
7905                             {
7906                                 "$schema": "http://json-schema.org/draft-04/schema#",
7907                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
7908                                 "id":
7909                                 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
7910                                 "title": "Media Source List",
7911                                 "definitions": {
7912                                     "oic.r.mediasourcelist": {
7913                                         "properties": {
7914                                             "sources": {
7915                                                 "type": "array",
7916                                                 "items": {
7917                                                     "oneOf": [
7918                                                         { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediasource" }
7919                                                     ]
7920                                                 }
7921                                             }
7922                                         }
7923                                     }
7924                                 },
7925                                 "type": "object",
7926                                 "allOf": [
7927                                     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7928                                     { "$ref": "#/definitions/oic.r.mediasourcelist" }
7929                                 ],
7930                                 "required": ["sources"]
7931                             }
7932
7933                         example: /
7934                             {
7935                                 "rt": ["oic.r.media.input"],
7936                                 "id": "unique_example_id",
7937                                 "sources": [
7938                                     {
7939                                         "sourceName": "HDMI-CEC",
7940                                         "sourceNumber": "1",
7941                                         "sourceType": "audioPlusVideo",
7942                                         "status": true
7943                                     },
7944                                     {
7945                                         "sourceName": "dualRCA",
7946                                         "sourceNumber": "1",
7947                                         "sourceType": "audioOnly",
7948                                         "status": false
7949                                     }
7950                                 ]
7951                             }
7952
7953     post:
7954         description: |

```

```

7955         Changes the status of the source(s).
7956         Allows changes of the sourceName and the status.
7957
7958     body:
7959         application/json:
7960             schema: /
7961                 {
7962                     "$schema": "http://json-schema.org/draft-04/schema#",
7963                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
7964 reserved.",
7965                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
7966                     "title": "Media Source List",
7967                     "definitions": {
7968                         "oic.r.mediasourcelist": {
7969                             "properties": {
7970                                 "sources": {
7971                                     "type": "array",
7972                                     "items": {
7973                                         "oneOf": [
7974                                             { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediasource" }
7975                                         ]
7976                                     }
7977                                 }
7978                             }
7979                         }
7980                     },
7981                     "type": "object",
7982                     "allOf": [
7983                         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
7984                         { "$ref": "#/definitions/oic.r.mediasourcelist" }
7985                     ],
7986                     "required": ["sources"]
7987                 }
7988
7989     example: /
7990         {
7991             "id": "unique_example_id",
7992             "sources": [
7993                 {
7994                     "sourceName": "my new name",
7995                     "sourceNumber": "1",
7996                     "status": true
7997                 }
7998             ]
7999         }
8000
8001     responses :
8002         200:
8003             body:
8004                 application/json:
8005                     schema: /
8006                         {
8007                             "$schema": "http://json-schema.org/draft-04/schema#",
8008                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8009 rights reserved.",
8010                             "id":
8011 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
8012                             "title": "Media Source List",
8013                             "definitions": {
8014                                 "oic.r.mediasourcelist": {
8015                                     "properties": {
8016                                         "sources": {
8017                                             "type": "array",
8018                                             "items": {
8019                                                 "oneOf": [

```

```

8020         { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediasource" }
8021     ]
8022 }
8023 }
8024 }
8025 }
8026 },
8027 "type": "object",
8028 "allOf": [
8029     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
8030     { "$ref": "#/definitions/oic.r.mediasourcelist" }
8031 ],
8032 "required": ["sources"]
8033 }
8034
8035 example: /
8036 {
8037     "id": "unique_example_id",
8038     "sources": [
8039         {
8040             "sourceName": "my new name",
8041             "sourceNumber": "1",
8042             "status": true
8043         }
8044     ]
8045 }
8046

```

#### 6.45.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
sources	array: see schema	yes		

#### 6.45.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/mediaSourceInputResURI		get	post		

### 6.46 Media Source Output

#### 6.46.1 Introduction

This resource provides the list of output media sources available on the device. The sources are an array of mediaSource(s) as separately defined.

#### 6.46.2 Example URI

/mediaSourceOutputResURI

#### 6.46.3 Resource Type

The resource type (rt) is defined as: oic.r.media.output.

#### 6.46.4 RAML Definition

```

8058 #%RAML 0.8
8059 title: OICMediaSourceOutput
8060 version: v1.1.0-20160519
8061 traits:
8062   - interface :
8063       queryParameters:
8064           if:
8065               enum: ["oic.if.a", "oic.if.baseline"]
8066
8067 /mediaSourceOutputResURI:
8068     description: |

```

```

8069     This resource provides the list of output media sources available on the device.
8070     The sources are an array of mediaSource(s) as separately defined.
8071
8072     is : ['interface']
8073
8074     get:
8075         responses :
8076             200:
8077                 body:
8078                     application/json:
8079                         schema: /
8080                             {
8081                                 "$schema": "http://json-schema.org/draft-04/schema#",
8082                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
8083                                 "id":
8084                                 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
8085                                 "title": "Media Source List",
8086                                 "definitions": {
8087                                     "oic.r.mediasourcelist": {
8088                                         "properties": {
8089                                             "sources": {
8090                                                 "type": "array",
8091                                                 "items": {
8092                                                     "oneOf": [
8093                                                         { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediasource" }
8094                                                     ]
8095                                                 }
8096                                             }
8097                                         }
8098                                     }
8099                                 },
8100                                 "type": "object",
8101                                 "allof": [
8102                                     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
8103                                     { "$ref": "#/definitions/oic.r.mediasourcelist" }
8104                                 ],
8105                                 "required": ["sources"]
8106                             }
8107
8108                         example: /
8109                             {
8110                                 "rt": ["oic.r.media.output"],
8111                                 "id": "unique_example_id",
8112                                 "sources": [
8113                                     {
8114                                         "sourceName": "HDMI-CEC",
8115                                         "sourceNumber": "1",
8116                                         "sourceType": "audioPlusVideo",
8117                                         "status": true
8118                                     },
8119                                     {
8120                                         "sourceName": "dualRCA",
8121                                         "sourceNumber": "1",
8122                                         "sourceType": "audioOnly",
8123                                         "status": false
8124                                     }
8125                                 ]
8126                             }
8127
8128                     post:
8129                         description: |
8130                             Changes the status of the source(s).
8131                             Allows changes of the sourceName and the status.
8132
8133                     body:

```

```

8134     application/json:
8135         schema: /
8136             {
8137                 "$schema": "http://json-schema.org/draft-04/schema#",
8138                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
8139 reserved.",
8140                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
8141                 "title": "Media Source List",
8142                 "definitions": {
8143                     "oic.r.mediasourcelist": {
8144                         "properties": {
8145                             "sources": {
8146                                 "type": "array",
8147                                 "items": {
8148                                     "oneOf": [
8149                                         { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediasource" }
8150                                     ]
8151                                 }
8152                             }
8153                         }
8154                     },
8155                     "type": "object",
8156                     "allOf": [
8157                         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
8158                         { "$ref": "#/definitions/oic.r.mediasourcelist" }
8159                     ],
8160                     "required": ["sources"]
8161                 }
8162             }
8163
8164     example: /
8165         {
8166             "id": "unique_example_id",
8167             "sources": [
8168                 {
8169                     "sourceName": "my new name",
8170                     "sourceNumber": "1",
8171                     "status": true
8172                 }
8173             ]
8174         }
8175
8176     responses :
8177         200:
8178             body:
8179                 application/json:
8180                     schema: /
8181                         {
8182                             "$schema": "http://json-schema.org/draft-04/schema#",
8183                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8184 rights reserved.",
8185                             "id":
8186 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mediaSourceList.json#",
8187                             "title": "Media Source List",
8188                             "definitions": {
8189                                 "oic.r.mediasourcelist": {
8190                                     "properties": {
8191                                         "sources": {
8192                                             "type": "array",
8193                                             "items": {
8194                                                 "oneOf": [
8195                                                     { "$ref": "oic.r.mediaSource.json#/definitions/oic.r.mediasource" }
8196                                                 ]
8197                                             }
8198                                         }
8199                                     }
8200                                 }
8201                             }

```

```

8200     }
8201   },
8202   "type": "object",
8203   "allOf": [
8204     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
8205     { "$ref": "#/definitions/oic.r.mediasourcelist" }
8206   ],
8207   "required": ["sources"]
8208 }
8209
8210 example: /
8211 {
8212   "id": "unique_example_id",
8213   "sources": [
8214     {
8215       "sourceName": "my new name",
8216       "sourceNumber": "1",
8217       "status": true
8218     }
8219   ]
8220 }
8221

```

## 6.46.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
sources	array: see schema	yes		

## 6.46.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/mediaSourceOutputResURI		get	post		

## 6.47 Motion Sensor

### 6.47.1 Introduction

This resource describes whether motion has been sensed or not. The value is a boolean. A value of 'true' means that motion has been sensed. A value of 'false' means that motion not been sensed.

### 6.47.2 Example URI

/MotionResURI

### 6.47.3 Resource Type

The resource type (rt) is defined as: oic.r.sensor.motion.

### 6.47.4 RAML Definition

```

8233 #%RAML 0.8
8234 title: OICMotionSensor
8235 version: v1.1.0-20160519
8236 traits:
8237   - interface :
8238     queryParameters:
8239       if:
8240         enum: ["oic.if.s", "oic.if.baseline"]
8241
8242 /MotionResURI:
8243   description: |
8244     This resource describes whether motion has been sensed or not.
8245     The value is a boolean.
8246     A value of 'true' means that motion has been sensed.
8247     A value of 'false' means that motion not been sensed.
8248

```

```

8249     is : ['interface']
8250
8251     get:
8252         responses :
8253             200:
8254                 body:
8255                     application/json:
8256                         schema: /
8257                             {
8258                                 "id":
8259 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.motion.json#",
8260                                 "$schema": "http://json-schema.org/draft-04/schema#",
8261                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8262 rights reserved.",
8263                                 "title": "Motion Sensor",
8264                                 "definitions": {
8265                                     "oic.r.sensor.motion": {
8266                                         "allOf": [
8267                                             {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
8268                                         ]
8269                                     },
8270                                 "type": "object",
8271                                 "allOf": [
8272                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8273                                     {"$ref": "#/definitions/oic.r.sensor.motion"}
8274                                 ],
8275                                 "required": ["value"]
8276                             }
8277
8278                 example: /
8279                     {
8280                         "rt":      ["oic.r.sensor.motion"],
8281                         "id":      "unique_example_id",
8282                         "value": true
8283                     }
8284

```

## 8285 6.47.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

## 8286 6.47.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/MotionResURI		get			

## 8287 6.48 Night Mode

### 8288 6.48.1 Introduction

8289 This resource describes a night mode on/off feature. A nightMode value of 'true' means that the  
8290 feature is on. A nightMode value of 'false' means that the feature is off.

### 8291 6.48.2 Example URI

8292 /NightModeResURI

### 8293 6.48.3 Resource Type

8294 The resource type (rt) is defined as: oic.r.nightmode.

### 8295 6.48.4 RAML Definition

```

8296 #%RAML 0.8
8297 title: OICNightMode

```



```

8298 version: v1.1.0-20160519
8299 traits:
8300   - interface :
8301       queryParameters:
8302         if:
8303           enum: ["oic.if.a", "oic.if.baseline"]
8304
8305 /NightModeResURI:
8306   description: |
8307     This resource describes a night mode on/off feature.
8308     A nightMode value of 'true' means that the feature is on.
8309     A nightMode value of 'false' means that the feature is off.
8310
8311   is : ['interface']
8312   get:
8313     responses :
8314       200:
8315         body:
8316           application/json:
8317             schema: /
8318               {
8319                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.nightMode.json#",
8320                 "$schema": "http://json-schema.org/draft-04/schema#",
8321                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8322 rights reserved.",
8323                 "title": "Night Mode",
8324                 "definitions": {
8325                   "oic.r.nightmode": {
8326                     "type": "object",
8327                     "properties": {
8328                       "nightMode": {
8329                         "type": "boolean",
8330                         "description": "Status of the Night Mode"
8331                       }
8332                     }
8333                   }
8334                 },
8335                 "type": "object",
8336                 "allOf": [
8337                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8338                   {"$ref": "#/definitions/oic.r.nightmode"}
8339                 ],
8340                 "required": [ "nightMode" ]
8341               }
8342
8343   example: /
8344     {
8345       "rt":          ["oic.r.nightmode"],
8346       "id":          "unique_example_id",
8347       "nightMode":   false
8348     }
8349
8350   post:
8351     body:
8352       application/json:
8353         schema: /
8354           {
8355             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.nightMode.json#",
8356             "$schema": "http://json-schema.org/draft-04/schema#",
8357             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
8358 reserved.",
8359             "title": "Night Mode",

```

```

8360         "definitions": {
8361             "oic.r.nightmode": {
8362                 "type": "object",
8363                 "properties": {
8364                     "nightMode": {
8365                         "type": "boolean",
8366                         "description": "Status of the Night Mode"
8367                     }
8368                 }
8369             }
8370         },
8371         "type": "object",
8372         "allOf": [
8373             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8374             {"$ref": "#/definitions/oic.r.nightmode"}
8375         ],
8376         "required": [ "nightMode" ]
8377     }
8378
8379     example: /
8380     {
8381         "id":          "unique_example_id",
8382         "nightMode":   true
8383     }
8384
8385     responses :
8386         200:
8387             body:
8388                 application/json:
8389                     schema: /
8390                     {
8391                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.nightMode.json#",
8392                         "$schema": "http://json-schema.org/draft-04/schema#",
8393                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8394 rights reserved.",
8395                         "title": "Night Mode",
8396                         "definitions": {
8397                             "oic.r.nightmode": {
8398                                 "type": "object",
8399                                 "properties": {
8400                                     "nightMode": {
8401                                         "type": "boolean",
8402                                         "description": "Status of the Night Mode"
8403                                     }
8404                                 }
8405                             }
8406                         },
8407                         "type": "object",
8408                         "allOf": [
8409                             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8410                             {"$ref": "#/definitions/oic.r.nightmode"}
8411                         ],
8412                         "required": [ "nightMode" ]
8413                     }
8414
8415                     example: /
8416                     {
8417                         "id":          "unique_example_id",
8418                         "nightMode":   true
8419                     }
8420

```

#### 6.48.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

nightMode	boolean	yes		Status of the Night Mode
-----------	---------	-----	--	--------------------------

## 6.48.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/NightModeResURI		get	post		

## 6.49 Presence Sensor

### 6.49.1 Introduction

This resource describes whether presence has been sensed or not. The value is a boolean. A value of 'true' means that presence has been sensed. A value of 'false' means that presence not been sensed.

### 6.49.2 Example URI

/PresenceResURI

### 6.49.3 Resource Type

The resource type (rt) is defined as: oic.r.sensor.presence.

### 6.49.4 RAML Definition

```

#%RAML 0.8
title: OICPresenceSensor
version: v1.1.0-20160519

traits:
- interface :
    queryParameters:
        if:
            enum: ["oic.if.s", "oic.if.baseline"]

/PresenceResURI:
    description: |
        This resource describes whether presence has been sensed or not.
        The value is a boolean.
        A value of 'true' means that presence has been sensed.
        A value of 'false' means that presence not been sensed.

    is : ['interface']

    get:
        responses :
            200:
                body:
                    application/json:
                        schema: /
                            {
                                "id":
                                    "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.presence.json#",
                                    "$schema": "http://json-schema.org/draft-04/schema#",
                                    "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                                    "title": "Presence Sensor",
                                    "definitions": {
                                        "oic.r.sensor.presence": {
                                            "allOf": [
                                                { "$ref": "oic.r.sensor.json#/definitions/oic.r.sensor" }
                                            ]
                                        }
                                    },
                                    "type": "object",
                                    "allOf": [

```

```

8472         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8473         {"$ref": "#/definitions/oic.r.sensor.presence"}
8474     ],
8475     "required": ["value"]
8476 }
8477
8478     example: /
8479     {
8480         "rt": ["oic.r.sensor.presence"],
8481         "id": "unique_example_id",
8482         "value": true
8483     }
8484

```

## 6.49.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

## 6.49.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/PresenceResURI		get			

## 6.50 Pan Tilt Zoom Movement

### 6.50.1 Introduction

This resource specifies the pan tilt and zoom capabilities of a device. The resource rt is dynamic and reflects whether the values apply to physical movement of the device or digital/virtual enhancements to the image. For physical movement the rt is 'oic.r.movement.ptz'. For digital/virtual image enhancements the rt is 'oic.r.image.ptz'. The Pan and Tilt are specified in degrees. The Zoom Factor is a value in the range 1-100 for linear (optical) zoom. The Zoom Factor is a value in the range [1x, 2x, 4x, 8x, 16x, 32x] for digital zoom. If there is no zoom value to set the Zoom Factor shall be '1x'. The value 0 degrees means neutral, this is the vendor defined setting. Note that this resource also can be used to create an offset for physical movement. When that is the case, the rt value is: oic.r.movement.offset.ptz Note that this resource also can be used to create an offset for image movement. When that is the case, the rt value is: oic.r.image.offset.ptz When the pan\_range value is omitted, then the range is [-180.0,180.0]. If pan is not supported then the range shall be [0.0,0.0] When the tilt\_range value is omitted, then the range is [-180.0,180.0]. If tilt is not supported then the range shall be [0.0,0.0]

### 6.50.2 Example URI

/PanTiltZoomResURI

### 6.50.3 Resource Type

The resource type (rt) is defined as: oic.r.ptz.

### 6.50.4 RAML Definition

```

8507 #%RAML 0.8
8508 title: OICPanTiltZoom
8509 version: v1.1.0-20160519
8510 traits:
8511   - interface :
8512     queryParameters:
8513       if:
8514         enum: ["oic.if.a", "oic.if.baseline"]
8515
8516 /PanTiltZoomResURI:

```

```

8517 description: |
8518     This resource specifies the pan tilt and zoom capabilities of a device.
8519     The resource rt is dynamic and reflects whether the values apply to
8520     physical movement of the device or digital/virtual enhancements to the image.
8521     For physical movement the rt is 'oic.r.movement.ptz'.
8522     For digital/virtual image enhancements the rt is 'oic.r.image.ptz'.
8523     The Pan and Tilt are specified in degrees.
8524     The Zoom Factor is a value in the range 1-100 for linear (optical) zoom.
8525     The Zoom Factor is a value in the range [1x, 2x, 4x, 8x, 16x, 32x] for digital zoom.
8526     If there is no zoom value to set the Zoom Factor shall be '1x'.
8527     The value 0 degrees means neutral, this is the vendor defined setting.
8528     Note that this resource also can be used to create an offset for physical movement.
8529     When that is the case, the rt value is: oic.r.movement.offset.ptz
8530     Note that this resource also can be used to create an offset for image movement.
8531     When that is the case, the rt value is: oic.r.image.offset.ptz
8532     When the pan_range value is omitted, then the range is [-180.0,180.0].
8533     If pan is not supported then the range shall be [0.0,0.0]
8534     When the tilt_range value is omitted, then the range is [-180.0,180.0].
8535     If tilt is not supported then the range shall be [0.0,0.0]
8536
8537 is : ['interface']
8538
8539 get:
8540     description: |
8541         Retrieves the current pan, tilt and zoom setting.
8542
8543 responses :
8544     200:
8545         body:
8546             application/json:
8547                 schema: /
8548                     {
8549                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.ptz.json#",
8550                         "$schema": "http://json-schema.org/draft-04/schema#",
8551                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
8552                         "title": "Pan Tilt Zoom",
8553                         "definitions": {
8554                             "oic.r.ptz": {
8555                                 "type": "object",
8556                                 "properties": {
8557                                     "pan": {
8558                                         "type": "number",
8559                                         "description": "horizontal pan in degrees"
8560                                     },
8561                                     "tilt": {
8562                                         "type": "number",
8563                                         "description": "vertical tilt in degrees"
8564                                     },
8565                                     "pan_range": {
8566                                         "type": "array",
8567                                         "readOnly": true,
8568                                         "description": "Min and Max values for the pan setting",
8569                                         "minItems": 2,
8570                                         "maxItems": 2,
8571                                         "items": {
8572                                             "type": "number"
8573                                         }
8574                                     },
8575                                     "tilt_range": {
8576                                         "type": "array",
8577                                         "readOnly": true,
8578                                         "description": "Min and Max values for the tilt setting",
8579                                         "minItems": 2,
8580                                         "maxItems": 2,
8581                                         "items": {
8582                                             "type": "number"
8583                                         }
8584                                     }
8585                                 }
8586                             }
8587                         }
8588                     }

```

```

8584         },
8585         "zoomFactor": {
8586             "type": "string",
8587             "description": "The Zoomfactor value"
8588         },
8589         "zoomFactorRange": {
8590             "type": "string",
8591             "enum": ["linear", "1x", "2x", "4x", "8x", "16x", "32x"],
8592             "readOnly": true,
8593             "description": "allowed Zoom Factor values. Linear equates to a 1-100
min/max."
8594         }
8595     }
8596 }
8597 }
8598 },
8599 "type": "object",
8600 "allOf": [
8601     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8602     {"$ref": "#/definitions/oic.r.ptz"}
8603 ],
8604 "required": ["pan", "tilt", "zoomFactor"]
8605 }
8606
8607 example: /
8608 {
8609     "rt":          ["oic.r.ptz"],
8610     "id":          "unique_example_id",
8611     "pan":         0.0,
8612     "tilt":        0.0,
8613     "zoomFactor": "2x"
8614 }
8615
8616 post:
8617     description: |
8618         Sets the current pan, tilt and zoom value
8619
8620     body:
8621         application/json:
8622             schema: /
8623                 {
8624                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.ptz.json#",
8625                     "$schema": "http://json-schema.org/draft-04/schema#",
8626                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
reserved.",
8627                     "title": "Pan Tilt Zoom",
8628                     "definitions": {
8629                         "oic.r.ptz": {
8630                             "type": "object",
8631                             "properties": {
8632                                 "pan": {
8633                                     "type": "number",
8634                                     "description": "horizontal pan in degrees"
8635                                 },
8636                                 "tilt": {
8637                                     "type": "number",
8638                                     "description": "vertical tilt in degrees"
8639                                 },
8640                                 "pan_range": {
8641                                     "type": "array",
8642                                     "readOnly": true,
8643                                     "description": "Min and Max values for the pan setting",
8644                                     "minItems": 2,
8645                                     "maxItems": 2,
8646                                     "items": {
8647                                         "type": "number"
8648                                     }
8649                                 }
8650                             }
8651                         }
8652                     }
8653                 }

```

```

8651         "tilt_range": {
8652             "type": "array",
8653             "readOnly": true,
8654             "description": "Min and Max values for the tilt setting",
8655             "minItems": 2,
8656             "maxItems": 2,
8657             "items": {
8658                 "type": "number"
8659             }
8660         },
8661         "zoomFactor": {
8662             "type": "string",
8663             "description": "The Zoomfactor value"
8664         },
8665         "zoomFactorRange": {
8666             "type": "string",
8667             "enum": ["linear", "1x", "2x", "4x", "8x", "16x", "32x"],
8668             "readOnly": true,
8669             "description": "allowed Zoom Factor values. Linear equates to a 1-100 min/max."
8670         }
8671     }
8672 },
8673 },
8674 "type": "object",
8675 "allOf": [
8676     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8677     {"$ref": "#/definitions/oic.r.ptz"}
8678 ],
8679 "required": ["pan", "tilt", "zoomFactor"]
8680 }
8681
8682 example: /
8683 {
8684     "id": "unique_example_id",
8685     "pan": 10.0,
8686     "tilt": -10.0,
8687     "zoomFactor": "4x"
8688 }
8689
8690 responses :
8691 200:
8692     body:
8693         application/json:
8694             schema: /
8695                 {
8696                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.ptz.json#",
8697                     "$schema": "http://json-schema.org/draft-04/schema#",
8698                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8699 rights reserved.",
8700                     "title": "Pan Tilt Zoom",
8701                     "definitions": {
8702                         "oic.r.ptz": {
8703                             "type": "object",
8704                             "properties": {
8705                                 "pan": {
8706                                     "type": "number",
8707                                     "description": "horizontal pan in degrees"
8708                                 },
8709                                 "tilt": {
8710                                     "type": "number",
8711                                     "description": "vertical tilt in degrees"
8712                                 },
8713                                 "pan_range": {
8714                                     "type": "array",
8715                                     "readOnly": true,
8716                                     "description": "Min and Max values for the pan setting",
8717                                     "minItems": 2,

```

```

8718         "maxItems": 2,
8719         "items": {
8720             "type": "number"
8721         }
8722     },
8723     "tilt_range": {
8724         "type": "array",
8725         "readOnly": true,
8726         "description": "Min and Max values for the tilt setting",
8727         "minItems": 2,
8728         "maxItems": 2,
8729         "items": {
8730             "type": "number"
8731         }
8732     },
8733     "zoomFactor": {
8734         "type": "string",
8735         "description": "The Zoomfactor value"
8736     },
8737     "zoomFactorRange": {
8738         "type": "string",
8739         "enum": ["linear", "1x", "2x", "4x", "8x", "16x", "32x"],
8740         "readOnly": true,
8741         "description": "allowed Zoom Factor values. Linear equates to a 1-100
8742 min/max."
8743     }
8744 }
8745 }
8746 },
8747 "type": "object",
8748 "allof": [
8749     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8750     {"$ref": "#/definitions/oic.r.ptz"}
8751 ],
8752 "required": ["pan", "tilt", "zoomFactor"]
8753 }
8754
8755 example: /
8756 {
8757     "id":          "unique_example_id",
8758     "pan":         10.0,
8759     "tilt":        -10.0,
8760     "zoomFactor":  "4x"
8761 }
8762

```

### 6.50.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
tilt_range	array: see schema		Read Only	Min and Max values for the tilt setting
zoomFactor	string	yes		The Zoomfactor value
tilt	number	yes		vertical tilt in degrees
pan_range	array: see schema		Read Only	Min and Max values for the pan setting
zoomFactorRange	string		Read Only	allowed Zoom Factor values. Linear equates to a 1-100 min/max.



pan	number	yes		horizontal pan in degrees
-----	--------	-----	--	---------------------------

## 6.50.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/PanTiltZoomResURI		get	post		

## 6.51 Signal Strength

### 6.51.1 Introduction

This resource describes the strength of a signal by means of lqi and rssi. The lqi is a floating point number that represents Link Quality Indicator. The rssi is a floating point number that represents the received signal strength indicator.

### 6.51.2 Example URI

/SignalStrengthResURI

### 6.51.3 Resource Type

The resource type (rt) is defined as: oic.r.signalstrength.

### 6.51.4 RAML Definition

```
#%RAML 0.8
title: OICSignalStrength
version: v1.1.0-20160519

traits:
- interface :
    queryParameters:
        if:
            enum: ["oic.if.s", "oic.if.baseline"]

/SignalStrengthResURI:
    description: |
        This resource describes the strength of a signal by means of lqi and rssi.
        The lqi is a floating point number that represents Link Quality Indicator.
        The rssi is a floating point number that represents the received signal strength indicator.

    is : ['interface']

    get:
        responses :
            200:
                body:
                    application/json:
                        schema: /
                            {
                                "id":
                                    "http://openinterconnect.org/iotdatamodels/schemas/oic.r.signalStrength.json#",
                                "$schema": "http://json-schema.org/draft-04/schema#",
                                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                                "title": "Signal Strength",
                                "definitions": {
                                    "oic.r.signalstrength": {
                                        "type": "object",
                                        "properties": {
                                            "lqi": {
                                                "type": "number",
                                                "readOnly": true,
                                                "description": "current value of Link Quality Indicator"
                                            },
                                            "rssi": {
```

```

8814         "type": "number",
8815         "readOnly": true,
8816         "description": "current value of Received Signal Strength Indicator"
8817     }
8818 }
8819 },
8820 },
8821 "type": "object",
8822 "allOf": [
8823     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8824     {"$ref": "#/definitions/oic.r.signalstrength"}
8825 ],
8826 "required": ["lqi", "rssi"]
8827 }
8828
8829 example: /
8830 {
8831     "rt": ["oic.r.signalstrength"],
8832     "id": "unique_example_id",
8833     "lqi": 10.0,
8834     "rssi": 55.0
8835 }
8836

```

### 8837 6.51.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rssi	number	yes	Read Only	current value of Received Signal Strength Indicator
lqi	number	yes	Read Only	current value of Link Quality Indicator

### 8838 6.51.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/SignalStrengthResURI		get			

## 8839 6.52 Speech Synthesis-TTS

### 8840 6.52.1 Introduction

8841 This resource may be created on the OIC Server that is capable of rendering speech by an OIC  
8842 Client and allows the client to provide an SSML document with text to render or may be created  
8843 on the OIC Server by some resident application. The audio rendered is at this stage local to the  
8844 Server (i.e. not streamed). The utterance is an SSML document. The supportedLanguages is an  
8845 array of the RFC 5646 defined language tags that are supported. The supportedVoices is an SSML  
8846 document fragment indicating the voices that are supported.

### 8847 6.52.2 Example URI

8848 /SpeechTTSResURI

### 8849 6.52.3 Resource Type

8850 The resource type (rt) is defined as: oic.r.speech.tts.

### 8851 6.52.4 RAML Definition

```

8852 #%RAML 0.8
8853 title: OICSpeechTTS
8854 version: v1.1.0-20160519
8855 traits:
8856   - interface :
8857       queryParameters:

```

```

8858         if:
8859             enum: ["oic.if.a", "oic.if.baseline"]

8860
8861 /SpeechTTSResURI:
8862     description: |
8863         This resource may be created on the OIC Server that is capable of rendering speech by an OIC
8864 Client
8865         and allows the client to provide an SSML document with text to render
8866         or may be created on the OIC Server by some resident application.
8867 The audio rendered is at this stage local to the Server (i.e
8868 not streamed).
8869 The utterance is an SSML document.
8870 The supportedLanguages is an array of the RFC 5646 defined language tags that are supported.
8871 The supportedVoices is an SSML document fragment indicating the voices that are supported.
8872
8873 is : ['interface']
8874
8875 get:
8876     description: |
8877         Utterance in the example shall be a properly escaped (JSON rules) SSML document
8878         An example is given below:
8879         "<?xml version='1.0' encoding='ISO-8859-1'>\n\r
8880         <speak version='1.1' xmlns='http://www.w3.org/2001/10/synthesis'\n\r
8881         \txmlns:xsi='http://www.w3.org/2001/XMLSchema-instance'\n\r
8882         \txsi:schemaLocation='http://www.w3.org/2001/10/synthesis'\n\r
8883         \thttp://www.w3.org/TR/speech-synthesis11/synthesis.xsd'\n\r
8884         \txml:lang='en-US'\n\r
8885         \n\r
8886         \tThe title of the movie is:\n\r
8887         \t\"Monty Pythons The Meaning of Life\"\n\r
8888         \twhich is directed by Terry Jones.\n\r
8889         </speak"
8890
8891 responses :
8892     200:
8893         body:
8894             application/json:
8895                 schema: /
8896                 {
8897                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.speech.tts.json#",
8898                     "$schema": "http://json-schema.org/draft-04/schema#",
8899                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
8900 rights reserved.",
8901                     "title": "Speech Synthesis-TTS",
8902                     "definitions": {
8903                         "oic.r.speech.tts": {
8904                             "type": "object",
8905                             "properties": {
8906                                 "utterance": {
8907                                     "type": "string",
8908                                     "description": "SSML document including the speech body"
8909                                 },
8910                                 "supportedLanguages": {
8911                                     "type": "array",
8912                                     "readOnly": true,
8913                                     "description": "array of supported language tags",
8914                                     "items": {
8915                                         "type": "string"
8916                                     }
8917                                 },
8918                                 "supportedVoices": {
8919                                     "type": "string",
8920                                     "readOnly": true,
8921                                     "description": "SSML document fragment indicating supported voices"
8922                                 }
8923                             }
8924                         }
8925                     }
8926                 }

```

```

8923     }
8924   },
8925   "type": "object",
8926   "allOf": [
8927     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8928     {"$ref": "#/definitions/oic.r.speech.tts"}
8929   ],
8930   "required": ["utterance"]
8931 }
8932
8933 example: /
8934 {
8935   "rt": ["oic.r.speech.tts"],
8936   "id": "unique_example_id",
8937   "utterance": "SSML Document",
8938   "supportedLanguages": ["en-US", "en-GB", "fr-CA"],
8939   "supportedVoices": "<voice gender=\"female\" variant=\"2\"></voice>\n\r<voice
8940 name=\"Mike\"></voice>"
8941 }
8942
8943 post:
8944   description: |
8945     Changes the utterance being rendered.
8946     Example shows a change in language selected.
8947
8948   body:
8949     application/json:
8950       schema: /
8951       {
8952         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.speech.tts.json#",
8953         "$schema": "http://json-schema.org/draft-04/schema#",
8954         "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
8955 reserved.",
8956         "title": "Speech Synthesis-TTS",
8957         "definitions": {
8958           "oic.r.speech.tts": {
8959             "type": "object",
8960             "properties": {
8961               "utterance": {
8962                 "type": "string",
8963                 "description": "SSML document including the speech body"
8964               },
8965               "supportedLanguages": {
8966                 "type": "array",
8967                 "readOnly": true,
8968                 "description": "array of supported language tags",
8969                 "items": {
8970                   "type": "string"
8971                 }
8972               },
8973               "supportedVoices": {
8974                 "type": "string",
8975                 "readOnly": true,
8976                 "description": "SSML document fragment indicating supported voices"
8977               }
8978             }
8979           },
8980         },
8981         "type": "object",
8982         "allOf": [
8983           {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
8984           {"$ref": "#/definitions/oic.r.speech.tts"}
8985         ],
8986         "required": ["utterance"]
8987       }
8988
8989 example: /

```

```

8990     {
8991         "rt":          ["oic.r.speech.tts"],
8992         "id":          "unique_example_id",
8993         "utterance":   "SSML Document"
8994     }
8995
8996     responses :
8997         200:
8998             body:
8999                 application/json:
9000                     schema: /
9001                         {
9002                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.speech.tts.json#",
9003                             "$schema": "http://json-schema.org/draft-04/schema#",
9004                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
9005                             "title": "Speech Synthesis-TTS",
9006                             "definitions": {
9007                                 "oic.r.speech.tts": {
9008                                     "type": "object",
9009                                     "properties": {
9010                                         "utterance": {
9011                                             "type": "string",
9012                                             "description": "SSML document including the speech body"
9013                                         },
9014                                     },
9015                                     "supportedLanguages": {
9016                                         "type": "array",
9017                                         "readOnly": true,
9018                                         "description": "array of supported language tags",
9019                                         "items": {
9020                                             "type": "string"
9021                                         }
9022                                     },
9023                                     "supportedVoices": {
9024                                         "type": "string",
9025                                         "readOnly": true,
9026                                         "description": "SSML document fragment indicating supported voices"
9027                                     }
9028                                 }
9029                             },
9030                             "type": "object",
9031                             "allOf": [
9032                                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
9033                                 { "$ref": "#/definitions/oic.r.speech.tts" }
9034                             ],
9035                             "required": ["utterance"]
9036                         }
9037
9038
9039                     example: /
9040                         {
9041                             "rt":          ["oic.r.speech.tts"],
9042                             "id":          "unique_example_id",
9043                             "utterance":   "SSML Document"
9044                         }
9045

```

#### 9046 6.52.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
supportedVoices	string		Read Only	SSML document fragment indicating supported voices

utterance	string	yes		SSML document including the speech body
supportedLanguages	array: see schema		Read Only	array of supported language tags

## 6.52.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/SpeechTTSResURI		get	post		

## 6.53 Touch Sensor

### 6.53.1 Introduction

This resource describes whether touch has been sensed or not. The value is a boolean. A value of 'true' means that touch has been sensed. A value of 'false' means that touch not been sensed.

### 6.53.2 Example URI

/TouchResURI

### 6.53.3 Resource Type

The resource type (rt) is defined as: oic.r.sensor.touch.

### 6.53.4 RAML Definition

```

#%RAML 0.8

title: OICTouchSensor
version: v1.1.0-20160519

traits:
- interface :
    queryParameters:
        if:
            enum: ["oic.if.s", "oic.if.baseline"]

/TouchResURI:

    description: |
        This resource describes whether touch has been sensed or not.
        The value is a boolean.
        A value of 'true' means that touch has been sensed.
        A value of 'false' means that touch not been sensed.

    is : ['interface']

    get:
        responses :
            200:
                body:
                    application/json:
                        schema: /
                            {
                                "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.touch.json#",
                                "$schema": "http://json-schema.org/draft-04/schema#",
                                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                                "title": "Touch Sensor",
                                "definitions": {
                                    "oic.r.sensor.touch": {
                                        "allof": [
                                            { "$ref": "oic.r.sensor.json#/definitions/oic.r.sensor" }
                                        ]
                                    }
                                }
                            }

```

```

9092         },
9093         "type": "object",
9094         "allOf": [
9095             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
9096             { "$ref": "#/definitions/oic.r.sensor.touch" }
9097         ],
9098         "required": ["value"]
9099     }
9100
9101     example: /
9102     {
9103         "rt": ["oic.r.sensor.touch"],
9104         "id": "unique_example_id",
9105         "value": true
9106     }
9107

```

## 9108 6.53.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

## 9109 6.53.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/TouchResURI		get			

## 9110 6.54 UV Radiation

### 9111 6.54.1 Introduction

9112 This resource specifies UV radiation measurement. The measurement is the current measured UV  
9113 Index

### 9114 6.54.2 Example URI

9115 /UVRadiationResURI

### 9116 6.54.3 Resource Type

9117 The resource type (rt) is defined as: oic.r.sensor.radiation.uv.

### 9118 6.54.4 RAML Definition

```

9119 #%RAML 0.8
9120 title: OICUVRadiation
9121 version: v1.1.0-20160519
9122 traits:
9123   - interface :
9124       queryParameters:
9125         if:
9126             enum: ["oic.if.s", "oic.if.baseline"]
9127
9128 /UVRadiationResURI:
9129     description: |
9130         This resource specifies UV radiation measurement.
9131         The measurement is the current measured UV Index
9132
9133     is : ['interface']
9134     get:
9135         description: |
9136             Retrieves the current UV Radiation value
9137

```

```

9138     responses :
9139     200:
9140         body:
9141             application/json:
9142                 schema: /
9143                     {
9144                         "id":
9145 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.radiation.uv.json#",
9146                         "$schema": "http://json-schema.org/draft-04/schema#",
9147                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9148 rights reserved.",
9149                         "title": "UV Radiation",
9150                         "definitions": {
9151                             "oic.r.sensor.radiation.uv": {
9152                                 "type": "object",
9153                                 "properties": {
9154                                     "measurement": {
9155                                         "type": "number",
9156                                         "readOnly": true,
9157                                         "description": "The measured UV Index"
9158                                     }
9159                                 }
9160                             }
9161                         },
9162                         "type": "object",
9163                         "allOf": [
9164                             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
9165                             { "$ref": "#/definitions/oic.r.sensor.radiation.uv" }
9166                         ],
9167                         "required": ["measurement"]
9168                     }
9169
9170                 example: /
9171                     {
9172                         "rt":          ["oic.r.sensor.radiation.uv"],
9173                         "id":          "unique_example_id",
9174                         "measurement": 3.5
9175                     }
9176

```

#### 9177 6.54.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
measurement	number	yes	Read Only	The measured UV Index

#### 9178 6.54.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/UVRadiationResURI		get			

### 9179 6.55 Water Sensor

#### 9180 6.55.1 Introduction

9181 This resource describes whether water has been sensed or not. The value is a boolean. A value  
9182 of 'true' means that water has been sensed. A value of 'false' means that water not been sensed.

#### 9183 6.55.2 Example URI

9184 /WaterResURI

#### 9185 6.55.3 Resource Type

9186 The resource type (rt) is defined as: oic.r.sensor.water.

#### 9187 6.55.4 RAML Definition

9188 #%RAML 0.8



```

9189 title: OICWaterSensor
9190 version: v1.1.0-20160519
9191 traits:
9192   - interface :
9193     queryParameters:
9194       if:
9195         enum: ["oic.if.s", "oic.if.baseline"]
9196
9197 /WaterResURI:
9198   description: |
9199     This resource describes whether water has been sensed or not.
9200     The value is a boolean.
9201     A value of 'true' means that water has been sensed.
9202     A value of 'false' means that water not been sensed.
9203
9204   is : ['interface']
9205   get:
9206     responses :
9207       200:
9208         body:
9209           application/json:
9210             schema: /
9211               {
9212                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.water.json#",
9213                 "$schema": "http://json-schema.org/draft-04/schema#",
9214                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9215 rights reserved.",
9216                 "title": "Water Sensor",
9217                 "definitions": {
9218                   "oic.r.sensor.water": {
9219                     "allOf": [
9220                       {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
9221                     ]
9222                   }
9223                 },
9224                 "type": "object",
9225                 "allOf": [
9226                   {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9227                   {"$ref": "#/definitions/oic.r.sensor.water"}
9228                 ],
9229                 "required": ["value"]
9230               }
9231
9232             example: /
9233               {
9234                 "rt": ["oic.r.sensor.water"],
9235                 "id": "unique_example_id",
9236                 "value": true
9237               }
9238

```

### 9239 6.55.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

### 9240 6.55.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/WaterResURI		get			

## 9241 6.56 Acceleration Sensor

### 9242 6.56.1 Introduction

9243 This resource provides a measure of proper acceleration (g force) as opposed to co-ordinate  
9244 acceleration (which is dependent on the co-ordinate system and the observer). The value is a float  
9245 which describes the acceleration experienced by the object in "g".

### 9246 6.56.2 Example URI

9247 /AccelerationResURI

### 9248 6.56.3 Resource Type

9249 The resource type (rt) is defined as: oic.r.sensor.acceleration.

### 9250 6.56.4 RAML Definition

```
9251 #%RAML 0.8
9252 title: OICAcceleration
9253 version: v1.1.0-20160519
9254 traits:
9255   - interface :
9256       queryParameters:
9257         if:
9258           enum: ["oic.if.s", "oic.if.baseline"]
9259
9260 /AccelerationResURI:
9261   description: |
9262     This resource provides a measure of proper acceleration (g force) as opposed to co-ordinate
9263 acceleration
9264     (which is dependent on the co-ordinate system and the observer).
9265     The value is a float which describes the acceleration experienced by the object in "g".
9266
9267   is : ['interface']
9268   get:
9269     responses :
9270       200:
9271         body:
9272           application/json:
9273             schema: /
9274               {
9275                 "id":
9276 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.acceleration.json#",
9277                 "$schema": "http://json-schema.org/draft-04/schema#",
9278                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9279 rights reserved.",
9280                 "title": "Acceleration Sensor",
9281                 "definitions": {
9282                   "oic.r.sensor.acceleration": {
9283                     "properties": {
9284                       "acceleration": {
9285                         "type": "number",
9286                         "readOnly": true,
9287                         "description": "sensed acceleration experienced in 'g'."
9288                       }
9289                     }
9290                   }
9291                 },
9292                 "type": "object",
9293                 "allOf": [
9294                   { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
9295                   { "$ref": "#/definitions/oic.r.sensor.acceleration" }
9296                 ],
9297                 "required": ["acceleration"]
```

```

9298         }
9299
9300     example: /
9301     {
9302         "rt":          ["oic.r.sensor.acceleration"],
9303         "id":          "unique_example_id",
9304         "acceleration": 0.5
9305     }
9306

```

#### 9307 6.56.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
acceleration	number	yes	Read Only	sensed acceleration experienced in 'g'.

#### 9308 6.56.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/AccelerationResURI		get			

### 9309 6.57 Movement

#### 9310 6.57.1 Introduction

9311 This resource specifies linear movement. The movementSettings is an array of strings containing  
 9312 possible movement values (e.g. spin, stop, left, right). The movement is the currently selected  
 9313 movement value. The movementModifier is a modifier to the movement value (e.g. "spin", "90")

#### 9314 6.57.2 Example URI

9315 /MovementResURI

#### 9316 6.57.3 Resource Type

9317 The resource type (rt) is defined as: oic.r.movement.linear.

#### 9318 6.57.4 RAML Definition

```

9319 #%RAML 0.8
9320 title: OICAcceleration
9321 version: v1.1.0-20160519
9322 traits:
9323   - interface :
9324     queryParameters:
9325       if:
9326         enum: ["oic.if.s", "oic.if.baseline"]
9327
9328 /MovementResURI:
9329   description: |
9330     This resource specifies linear movement.
9331     The movementSettings is an array of strings containing possible movement values (e.g
9332     spin, stop, left, right).
9333     The movement is the currently selected movement value.
9334     The movementModifier is a modifier to the movement value (e.g
9335     "spin", "90")
9336
9337   is : ['interface']
9338   get:
9339     responses :
9340       200:
9341         body:
9342           application/json:

```

```

9343         schema: /
9344             {
9345                 "id":
9346 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.movement.linear.json#",
9347                 "$schema": "http://json-schema.org/draft-04/schema#",
9348                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9349 rights reserved.",
9350                 "title": "Linear Movement",
9351                 "definitions": {
9352                     "oic.r.movement.linear": {
9353                         "type": "object",
9354                         "properties": {
9355                             "movementSettings": {
9356                                 "type": "array",
9357                                 "readOnly": true,
9358                                 "description": "array of possible movement values",
9359                                 "items": {
9360                                     "type": "string"
9361                                 }
9362                             },
9363                             "movement": {
9364                                 "type": "string",
9365                                 "description": "Current movement value"
9366                             },
9367                             "movementModifier": {
9368                                 "type": "string",
9369                                 "description": "Modifier to the movement value (e.g. spin-90, left-20),
9370 units are device dependent"
9371                             }
9372                         }
9373                     },
9374                     "type": "object",
9375                     "allOf": [
9376                         { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
9377                         { "$ref": "#/definitions/oic.r.movement.linear" }
9378                     ],
9379                     "required": ["movementSettings", "movement"]
9380                 }
9381             }
9382
9383         example: /
9384             {
9385                 "rt": ["oic.r.movement.linear"],
9386                 "id": "unique_example_id",
9387                 "movementSettings": ["stop", "left", "right", "rotate", "forward", "backward"],
9388                 "movement": "rotate",
9389                 "movementModifier": "90"
9390             }
9391
9392     post:
9393         description: |
9394             Sets the current device movement
9395
9396     body:
9397         application/json:
9398             schema: /
9399                 {
9400                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.movement.linear.json#",
9401                     "$schema": "http://json-schema.org/draft-04/schema#",
9402                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
9403 reserved.",
9404                     "title": "Linear Movement",
9405                     "definitions": {
9406                         "oic.r.movement.linear": {
9407                             "type": "object",
9408                             "properties": {
9409                                 "movementSettings": {

```

```

9410         "type": "array",
9411         "readOnly": true,
9412         "description": "array of possible movement values",
9413         "items": {
9414             "type": "string"
9415         }
9416     },
9417     "movement": {
9418         "type": "string",
9419         "description": "Current movement value"
9420     },
9421     "movementModifier": {
9422         "type": "string",
9423         "description": "Modifier to the movement value (e.g. spin-90, left-20), units
are device dependent"
9424     }
9425 }
9426 }
9427 }
9428 },
9429 "type": "object",
9430 "allOf": [
9431     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9432     {"$ref": "#/definitions/oic.r.movement.linear"}
9433 ],
9434 "required": ["movementSettings", "movement"]
9435 }
9436
9437 example: /
9438 {
9439     "id": "unique_example_id",
9440     "movementSettings": ["stop", "left", "right", "rotate", "forward", "backward"],
9441     "movement": "stop"
9442 }
9443
9444 responses :
9445 200:
9446     body:
9447         application/json:
9448             schema: /
9449                 {
9450                     "id":
9451 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.movement.linear.json#",
9452                     "$schema": "http://json-schema.org/draft-04/schema#",
9453                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
9454                     "title": "Linear Movement",
9455                     "definitions": {
9456                         "oic.r.movement.linear": {
9457                             "type": "object",
9458                             "properties": {
9459                                 "movementSettings": {
9460                                     "type": "array",
9461                                     "readOnly": true,
9462                                     "description": "array of possible movement values",
9463                                     "items": {
9464                                         "type": "string"
9465                                     }
9466                                 },
9467                                 "movement": {
9468                                     "type": "string",
9469                                     "description": "Current movement value"
9470                                 },
9471                                 "movementModifier": {
9472                                     "type": "string",
9473                                     "description": "Modifier to the movement value (e.g. spin-90, left-20),
units are device dependent"
9474                                 }
9475                             }
9476                         }

```

```

9477         }
9478     },
9479 },
9480 "type": "object",
9481 "allOf": [
9482     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9483     {"$ref": "#/definitions/oic.r.movement.linear"}
9484 ],
9485 "required": ["movementSettings", "movement"]
9486 }
9487
9488 example: /
9489 {
9490     "id": "unique_example_id",
9491     "movementSettings": ["stop", "left", "right", "rotate", "forward", "backward"],
9492     "movement": "stop"
9493 }
9494

```

## 6.57.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
movementSettings	array: see schema	yes	Read Only	array of possible movement values
movementModifier	string			Modifier to the movement value (e.g. spin-90, left-20), units are device dependent
movement	string	yes		Current movement value

## 6.57.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/MovementResURI		get	post		

## 6.58 Sleep Sensor

### 6.58.1 Introduction

This resource describes whether human sleep has been sensed or not. The value is a boolean. A value of 'true' means that sleep has been sensed. A value of 'false' means that sleep not been sensed.

### 6.58.2 Example URI

/SleepSensorResURI

### 6.58.3 Resource Type

The resource type (rt) is defined as: oic.r.sensor.sleep.

### 6.58.4 RAML Definition

```

9507 #%RAML 0.8
9508 title: OICSleepSensor
9509 version: v1.1.0-20160519
9510 traits:
9511   - interface :
9512       queryParameters:
9513         if:
9514           enum: ["oic.if.s", "oic.if.baseline"]

```

```

9516 /SleepSensorResURI:
9517     description: |
9518         This resource describes whether human sleep has been sensed or not.
9519         The value is a boolean.
9520         A value of 'true' means that sleep has been sensed.
9521         A value of 'false' means that sleep not been sensed.
9522
9523     is : ['interface']
9524     get:
9525         responses :
9526             200:
9527                 body:
9528                     application/json:
9529                         schema: /
9530                             {
9531                                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.sleep.json#",
9532                                 "$schema": "http://json-schema.org/draft-04/schema#",
9533                                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
9534 rights reserved.",
9535                                 "title": "Sleep Sensor",
9536                                 "definitions": {
9537                                     "oic.r.sensor.sleep": {
9538                                         "allOf": [
9539                                             {"$ref": "oic.r.sensor.json#/definitions/oic.r.sensor"}
9540                                         ]
9541                                     }
9542                                 },
9543                                 "type": "object",
9544                                 "allOf": [
9545                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9546                                     {"$ref": "#/definitions/oic.r.sensor.sleep"}
9547                                 ],
9548                                 "required": ["value"]
9549                             }
9550
9551                         example: /
9552                             {
9553                                 "rt":      ["oic.r.sensor.sleep"],
9554                                 "id":      "unique_example_id",
9555                                 "value":   true
9556                             }
9557

```

#### 9558 6.58.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.

#### 9559 6.58.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/SleepSensorResURI		get			

### 9560 6.59 Smoke Sensor

#### 9561 6.59.1 Introduction

9562 This resource describes whether smoke has been sensed or not. The value is a boolean. A value  
9563 of 'true' means that smoke has been sensed. A value of 'false' means that smoke not been sensed.

#### 9564 6.59.2 Example URI

9565 /SmokeSensorResURI

### 6.59.3 Resource Type

The resource type (rt) is defined as: oic.r.sensor.smoke.

### 6.59.4 RAML Definition

```
##RAML 0.8
title: OICSmokeSensor
version: v1.1.0-20160519

traits:
  - interface :
      queryParameters:
          if:
              enum: ["oic.if.s", "oic.if.baseline"]

/SmokeSensorResURI:
    description: |
        This resource describes whether smoke has been sensed or not.
        The value is a boolean.
        A value of 'true' means that smoke has been sensed.
        A value of 'false' means that smoke not been sensed.

    is : ['interface']

    get:
        responses :
            200:
                body:
                    application/json:
                        schema: /
                            {
                                "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.smoke.json#",
                                "$schema": "http://json-schema.org/draft-04/schema#",
                                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
                                rights reserved.",
                                "title": "Smoke Sensor",
                                "definitions": {
                                    "oic.r.sensor.smoke": {
                                        "allOf": [
                                            { "$ref": "oic.r.sensor.json#/definitions/oic.r.sensor" }
                                        ]
                                    },
                                },
                                "type": "object",
                                "allOf": [
                                    { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
                                    { "$ref": "#/definitions/oic.r.sensor.smoke" }
                                ],
                                "required": ["value"]
                            }

                        example: /
                            {
                                "rt": ["oic.r.sensor.smoke"],
                                "id": "unique_example_id",
                                "value": true
                            }
```

### 6.59.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------



value	boolean	yes	Read Only	True = Sensed, False = Not Sensed.
-------	---------	-----	-----------	--

## 6.59.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/SmokeSensorResURI		get			

## 6.60 Three Axis Sensor

### 6.60.1 Introduction

This resource provides a representation of the measurement from a three-axis sensor. The orientation is an array of numbers representing x-plane, y-plane and z-plane values. The unit of measurement for each pane is 'g'.

### 6.60.2 Example URI

/ThreeAxisResURI

### 6.60.3 Resource Type

The resource type (rt) is defined as: oic.r.sensor.threeaxis.

### 6.60.4 RAML Definition

```

#%RAML 0.8
title: OICThreeAxis
version: v1.1.0-20160519

traits:
- interface :
    queryParameters:
        if:
            enum: ["oic.if.s", "oic.if.baseline"]

/ThreeAxisResURI:
    description: |
        This resource provides a representation of the measurement from a three-axis sensor.
        The orientation is an array of numbers representing x-plane, y-plane and z-plane values.
        The unit of measurement for each pane is 'g'.

    is : ['interface']

    get:
        responses :
            200:
                body:
                    application/json:
                        schema: /
                            {
                                "id":
"http://openinterconnect.org/iotdatamodels/schemas/oic.r.sensor.threeaxis.json#",
                                "$schema": "http://json-schema.org/draft-04/schema#",
                                "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
                                "title": "Three Axis Sensor",
                                "definitions": {
                                    "oic.r.sensor.threeaxis": {
                                        "properties": {
                                            "orientation": {
                                                "type": "array",
                                                "readOnly": true,
                                                "description": "Array containing x-plane, y-plane and z-plane orientation
in 'g'."

```

```

9669         "minItems": 3,
9670         "maxItems": 3,
9671         "items": {
9672             "type": "number"
9673         }
9674     }
9675 }
9676 }
9677 },
9678 "type": "object",
9679 "allOf": [
9680     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9681     {"$ref": "#/definitions/oic.r.sensor.threeaxis"}
9682 ],
9683 "required": ["orientation"]
9684 }
9685
9686 example: /
9687 {
9688     "rt": ["oic.r.sensor.threeaxis"],
9689     "id": "unique_example_id",
9690     "orientation": [0.7, 1.1, -0.2]
9691 }
9692

```

## 9693 6.60.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
orientation	array: see schema	yes	Read Only	Array containing x-plane, y-plane and z-plane orientation in 'g'.

## 9694 6.60.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/ThreeAxisResURI		get			

## 9695 6.61 Altimeter

### 9696 6.61.1 Introduction

9697 This resource describes the properties associated with altimeter. Altimeter is a height of the  
9698 position (metres).

### 9699 6.61.2 Example URI

9700 /AltimeterResURI

### 9701 6.61.3 Resource Type

9702 The resource type (rt) is defined as: oic.r.altimeter.

### 9703 6.61.4 RAML Definition

```

9704 #%RAML 0.8
9705 title: OICAltimeter
9706 version: v1.1.0-20160519
9707 traits:
9708   - interface :
9709       queryParameters:
9710         if:
9711             enum: ["oic.if.s", "oic.if.baseline"]
9712
9713 /AltimeterResURI:
9714     description: |

```

```

9715     This resource describes the properties associated with altimeter.
9716     Altimeter is a height of the position (metres).
9717
9718     is : ['interface']
9719
9720     get:
9721         description: |
9722             Retrieves the current the height of the position (metres).
9723
9724     responses :
9725         200:
9726             body:
9727                 application/json:
9728                     schema: /
9729                         {
9730                             "id": "http://openinterconnect.org/schemas/oic.r.altimeter#",
9731                             "$schema": "http://json-schema.org/draft-04/schema#",
9732                             "description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All
9733                             rights reserved.",
9734                             "title": "Altimeter",
9735                             "definitions": {
9736                                 "oic.r.altimeter": {
9737                                     "type": "object",
9738                                     "properties": {
9739                                         "alt": {
9740                                             "type": "number",
9741                                             "minimum": 0,
9742                                             "readOnly": true,
9743                                             "description": "The current height of the position (metres)"
9744                                         }
9745                                     }
9746                                 },
9747                                 "type": "object",
9748                                 "allOf": [
9749                                     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
9750                                     { "$ref": "#/definitions/oic.r.altimeter" }
9751                                 ],
9752                                 "required": ["alt"]
9753                             }
9754
9755         example: /
9756             {
9757                 "rt": ["oic.r.altimeter"],
9758                 "id": "unique_example_id",
9759                 "alt": 1500.0
9760             }
9761

```

#### 6.61.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
alt	number	yes	Read Only	The current height of the position (metres)

#### 6.61.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/AltimeterResURI		get			

## 9764 6.62 Clock

### 9765 6.62.1 Introduction

9766 This resource describes the properties associated with clock and time. Clock is a time information.  
9767 Datetime is using ISO 8601 datetime format (e.g: "2007-04-05T14:30Z") (Time+Date+Timezone)  
9768 Countdown is the desired total seconds for countdown.

### 9769 6.62.2 Example URI

9770 /ClockResURI

### 9771 6.62.3 Resource Type

9772 The resource type (rt) is defined as: oic.r.clock.

### 9773 6.62.4 RAML Definition

9774 `##RAML 0.8`

9775 `title: OICClock`

9776 `version: v1.1.0-20160519`

9777 `traits:`

9778 `- interface :`

9779  `queryParameters:`

9780  `if:`

9781  `enum: ["oic.if.a", "oic.if.baseline"]`

9782

9783 `/ClockResURI:`

9784  `description: |`

9785  `This resource describes the properties associated with clock and time.`

9786  `Clock is a time information.`

9787  `Datetime is using ISO 8601 datetime format (e.g: "2007-04-05T14:30Z") (Time+Date+Timezone)`

9788  `Countdown is the desired total seconds for countdown.`

9789

9790  `is : ['interface']`

9791  `get:`

9792  `description: |`

9793  `Retrieves the current datetime data.`

9794

9795  `responses :`

9796  `200:`

9797  `body:`

9798  `application/json:`

9799  `schema: /`

9800  `{`

9801  `"id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.clock.json#",`

9802  `"$schema": "http://json-schema.org/draft-04/schema#",`

9803  `"description": "(c) 2016, 2017 Open Connectivity Foundation, Inc. All rights`

9804 `reserved.",`

9805  `"title": "Clock",`

9806  `"definitions": {`

9807  `"oic.r.clock": {`

9808  `"type": "object",`

9809  `"properties": {`

9810  `"datetime": {`

9811  `"type": "string",`

9812  `"description": "Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z,`

9813 `2007-04-05T14:30+09:00)"`

9814  `},`

9815  `"countdown": {`

9816  `"type": "number",`

9817  `"minimum": 0,`

9818  `"description": "Desired total seconds for countdown"`

9819  `}`

```

9820         }
9821     },
9822 },
9823 "type": "object",
9824 "allOf": [
9825     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9826     {"$ref": "#/definitions/oic.r.clock"}
9827 ],
9828 "required": ["datetime"]
9829 }
9830
9831 example: /
9832 {
9833     "rt":          ["oic.r.clock"],
9834     "id":          "unique_example_id",
9835     "datetime":    "2015-11-05T14:30Z",
9836     "countdown":  0.0
9837 }
9838
9839 post:
9840     description: |
9841         Sets the desired datetime.
9842
9843     body:
9844         application/json:
9845             schema: /
9846                 {
9847                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.clock.json#",
9848                     "$schema": "http://json-schema.org/draft-04/schema#",
9849                     "description": "(c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
9850 reserved.",
9851                     "title": "Clock",
9852                     "definitions": {
9853                         "oic.r.clock": {
9854                             "type": "object",
9855                             "properties": {
9856                                 "datetime": {
9857                                     "type": "string",
9858                                     "description": "Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z, 2007-
9859 04-05T14:30+09:00)"
9860                                 },
9861                                 "countdown": {
9862                                     "type": "number",
9863                                     "minimum": 0,
9864                                     "description": "Desired total seconds for countdown"
9865                                 }
9866                             }
9867                         }
9868                     },
9869                     "type": "object",
9870                     "allOf": [
9871                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
9872                         {"$ref": "#/definitions/oic.r.clock"}
9873                     ],
9874                     "required": ["datetime"]
9875                 }
9876
9877             example: /
9878                 {
9879                     "id":          "unique_example_id",
9880                     "datetime":    "2015-11-05T14:30Z",
9881                     "countdown":  0.0
9882                 }
9883
9884     responses :

```

```

9885 200:
9886     description: |
9887         Indicates that the datetime value was successfully changed.
9888         The new datetime value is provided in the response.
9889
9890     body:
9891         application/json:
9892
9893         schema: /
9894             {
9895                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.clock.json#",
9896                 "$schema": "http://json-schema.org/draft-04/schema#",
9897                 "description": "(c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
9898 reserved.",
9899                 "title": "Clock",
9900                 "definitions": {
9901                     "oic.r.clock": {
9902                         "type": "object",
9903                         "properties": {
9904                             "datetime": {
9905                                 "type": "string",
9906                                 "description": "Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z,
9907 2007-04-05T14:30+09:00)"
9908                             },
9909                             "countdown": {
9910                                 "type": "number",
9911                                 "minimum": 0,
9912                                 "description": "Desired total seconds for countdown"
9913                             }
9914                         }
9915                     }
9916                 },
9917                 "type": "object",
9918                 "allOf": [
9919                     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
9920                     { "$ref": "#/definitions/oic.r.clock" }
9921                 ],
9922                 "required": ["datetime"]
9923             }
9924
9925         example: /
9926             {
9927                 "id": "unique_example_id",
9928                 "datetime": "2015-11-05T14:30Z",
9929                 "countdown": 0.0
9930             }
9931
9932 403:
9933     description: |
9934         Indicates that OIC client sent an invalid property value to the server.
9935         The server responds with the required input representation.
9936
9937     body:
9938         application/json:
9939
9940         schema: /
9941             {
9942                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.clock.json#",
9943                 "$schema": "http://json-schema.org/draft-04/schema#",
9944                 "description": "(c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
9945 reserved.",
9946                 "title": "Clock",
9947                 "definitions": {
9948                     "oic.r.clock": {
9949                         "type": "object",
9950                         "properties": {
9951                             "datetime": {

```

```

9950         "type": "string",
9951         "description": "Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z,
9952 2007-04-05T14:30+09:00)"
9953     },
9954     "countdown": {
9955         "type": "number",
9956         "minimum": 0,
9957         "description": "Desired total seconds for countdown"
9958     }
9959 }
9960 }
9961 },
9962 "type": "object",
9963 "allOf": [
9964     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
9965     { "$ref": "#/definitions/oic.r.clock" }
9966 ],
9967 "required": ["datetime"]
9968 }
9969
9970 example: /
9971 {
9972     "id": "unique_example_id",
9973     "datetime": "2015-11-05T14:30Z",
9974     "countdown": 0.0
9975 }
9976

```

## 9977 6.62.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
countdown	number			Desired total seconds for countdown
datetime	string	yes		Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z, 2007-04-05T14:30+09:00)

## 9978 6.62.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/ClockResURI		get	post		

## 9979 6.63 Geolocation

### 9980 6.63.1 Introduction

9981 This resource describes the properties associated with the current geolocation coordinate.  
9982 Geolocation is a geolocation coordinate data. Latitude is a device's current Latitude coordinate  
9983 (degrees). Longitude is a device's current Longitude coordinate (degrees). Altitude is a device's  
9984 current Altitude position (metres). Accuracy is the accuracy level of the latitude and longitude  
9985 coordinates (metres). altitudeAccuracy is the accuracy level of the altitude coordinates (metres).  
9986 heading is a direction of travel of device (degree). speed is a device's current velocity (metres per  
9987 second).

### 9988 6.63.2 Example URI

9989 /GeolocationResURI

### 9990 6.63.3 Resource Type

9991 The resource type (rt) is defined as: oic.r.sensor.geolocation.

#### 6.63.4 RAML Definition

```
9992 6.63.4 RAML Definition
9993 #%RAML 0.8
9994 title: OICGeolocation
9995 version: v1.1.0-20160519
9996 traits:
9997   - interface :
9998     queryParameters:
9999       if:
10000         enum: ["oic.if.s", "oic.if.baseline"]
10001
10002 /GeolocationResURI:
10003   description: |
10004     This resource describes the properties associated with the current geolocation coordinate.
10005     Geolocation is a geolocation coordinate data.
10006     Latitude is a device's current Latitude coordinate (degrees).
10007     Longitude is a device's current Longitude coordinate (degrees).
10008     Altitude is a device's current Altitude position (metres).
10009     Accuracy is the accuracy level of the latitude and longitude coordinates (metres).
10010     altitudeAccuracy is the accuracy level of the altitude coordinates (metres).
10011     heading is a direction of travel of device (degree).
10012     speed is a device's current velocity (metres per second).
10013
10014   is : ['interface']
10015   get:
10016     description: |
10017       Retrieves the current geolocation coordinates.
10018
10019   responses :
10020     200:
10021       body:
10022         application/json:
10023           schema: /
10024             {
10025               "id": "http://openinterconnect.org/schemas/oic.r.sensor.geolocation#",
10026               "$schema": "http://json-schema.org/draft-04/schema#",
10027               "description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All
10028 rights reserved.",
10029               "title": "Geolocation",
10030               "definitions": {
10031                 "oic.r.sensor.geolocation": {
10032                   "type": "object",
10033                   "allof": [
10034                     {"$ref": "oic.r.altimeter.json#/definitions/oic.r.altimeter"},
10035                     {"properties": {
10036                       "latitude": {
10037                         "type": "number",
10038                         "readOnly": true,
10039                         "description": "Device's Current Latitude coordinate (degrees)"
10040                       },
10041                       "longitude": {
10042                         "type": "number",
10043                         "readOnly": true,
10044                         "description": "Device's Current Longitude coordinate (degrees)"
10045                       },
10046                       "accuracy": {
10047                         "type": "number",
10048                         "minimum": 0,
10049                         "readOnly": true,
10050                         "description": "The accuracy level of the latitude and longitude
10051 coordinates (metres)"
10052                       },
10053                       "altitudeAccuracy": {
```



```

10054         "type": "number",
10055         "minimum": 0,
10056         "readOnly": true,
10057         "description": "The accuracy level of the altitude coordinates (metres)"
10058     },
10059     "heading": {
10060         "type": "number",
10061         "minimum": 0,
10062         "maximum": 360,
10063         "readOnly": true,
10064         "description": "Direction of travel of device (degree)"
10065     },
10066     "speed": {
10067         "type": "number",
10068         "minimum": 0,
10069         "readOnly": true,
10070         "description": "Device's current velocity (metres per second)"
10071     }
10072 }
10073 }
10074 ]
10075 }
10076 },
10077 "type": "object",
10078 "allof": [
10079     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10080     {"$ref": "#/definitions/oic.r.sensor.geolocation"}
10081 ],
10082 "required": ["latitude", "longitude", "alt"]
10083 }
10084
10085 example: /
10086 {
10087     "rt":          ["oic.r.sensor.geolocation"],
10088     "id":          "unique_example_id",
10089     "latitude":    55.070859,
10090     "longitude":   -3.60512,
10091     "alt":         12.07,
10092     "accuracy":    65.0,
10093     "altitudeAccuracy": 0.0,
10094     "heading":     90.0,
10095     "speed":       0.0
10096 }
10097

```

### 6.63.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
longitude	number	yes	Read Only	Device's Current Longitude coordinate (degrees)
latitude	number	yes	Read Only	Device's Current Latitude coordinate (degrees)
altitudeAccuracy	number		Read Only	The accuracy level of the altitude coordinates (metres)
speed	number		Read Only	Device's current velocity (metres per second)

heading	number		Read Only	Direction of travel of device (degree)
accuracy	number		Read Only	The accuracy level of the latitude and longitude coordinates (metres)

## 10099 6.63.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/GeolocationResURI		get			

## 10100 6.64 Height

### 10101 6.64.1 Introduction

10102 This resource describes the properties associated with height of an object's physical size. Height  
10103 (height) is height of an object.

### 10104 6.64.2 Example URI

10105 /HeightResURI

### 10106 6.64.3 Resource Type

10107 The resource type (rt) is defined as: oic.r.height.

### 10108 6.64.4 RAML Definition

10109 `##RAML 0.8`

10110 `title: OICHeight`

10111 `version: v1.1.0-20160519`

10112 `traits:`

10113 `- interface :`

10114  `queryParameters:`

10115  `if:`

10116  `enum: ["oic.if.a", "oic.if.baseline"]`

10117

10118 `/HeightResURI:`

10119  `description: |`

10120  `This resource describes the properties associated with height of an object's physical size.`

10121  `Height (height) is height of an object.`

10122

10123 `is : ['interface']`

10124 `get:`

10125  `description: |`

10126  `Retrieves height of an object.`

10127

10128 `responses :`

10129  `200:`

10130  `body:`

10131  `application/json:`

10132  `schema: /`

10133  `{`

10134  `"id": "http://openinterconnect.org/schemas/oic.r.height.json#",`

10135  `"$schema": "http://json-schema.org/draft-04/schema#",`

10136  `"description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All`

10137 `rights reserved.",`

10138  `"title": "Height",`

```

10139         "definitions": {
10140             "oic.r.height": {
10141                 "type": "object",
10142                 "properties": {
10143                     "height": {
10144                         "type": "number",
10145                         "minimum": 0,
10146                         "description": "Height of an object"
10147                     }
10148                 }
10149             }
10150         },
10151         "type": "object",
10152         "allOf": [
10153             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10154             {"$ref": "#/definitions/oic.r.height"}
10155         ],
10156         "required": ["height"]
10157     }
10158
10159     example: /
10160     {
10161         "rt": ["oic.r.height"],
10162         "id": "unique_example_id",
10163         "height": 100.0
10164     }
10165
10166     post:
10167         description: |
10168             Sets the Height.
10169
10170     body:
10171         application/json:
10172             schema: /
10173             {
10174                 "id": "http://openinterconnect.org/schemas/oic.r.height.json#",
10175                 "$schema": "http://json-schema.org/draft-04/schema#",
10176                 "description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All rights
10177 reserved.",
10178                 "title": "Height",
10179                 "definitions": {
10180                     "oic.r.height": {
10181                         "type": "object",
10182                         "properties": {
10183                             "height": {
10184                                 "type": "number",
10185                                 "minimum": 0,
10186                                 "description": "Height of an object"
10187                             }
10188                         }
10189                     }
10190                 },
10191                 "type": "object",
10192                 "allOf": [
10193                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10194                     {"$ref": "#/definitions/oic.r.height"}
10195                 ],
10196                 "required": ["height"]
10197             }
10198
10199     example: /
10200     {
10201         "id": "unique_example_id",
10202         "height": 200.0
10203     }
10204

```

```

10205     responses :
10206     200:
10207         description: |
10208             Indicates that the height was successfully changed.
10209             The new height is provided in the response.
10210
10211     body:
10212     application/json:
10213         schema: /
10214             {
10215                 "id": "http://openinterconnect.org/schemas/oic.r.height.json#",
10216                 "$schema": "http://json-schema.org/draft-04/schema#",
10217                 "description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All
10218 rights reserved.",
10219                 "title": "Height",
10220                 "definitions": {
10221                     "oic.r.height": {
10222                         "type": "object",
10223                         "properties": {
10224                             "height": {
10225                                 "type": "number",
10226                                 "minimum": 0,
10227                                 "description": "Height of an object"
10228                             }
10229                         }
10230                     }
10231                 },
10232                 "type": "object",
10233                 "allOf": [
10234                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10235                     {"$ref": "#/definitions/oic.r.height"}
10236                 ],
10237                 "required": ["height"]
10238             }
10239
10240         example: /
10241             {
10242                 "id": "unique_example_id",
10243                 "height": 200.0
10244             }
10245
10246     403:
10247         description: |
10248             Indicates that OIC client sent an invalid property value to the server.
10249             The server responds with the current resource representation.
10250
10251     body:
10252     application/json:
10253         schema: /
10254             {
10255                 "id": "http://openinterconnect.org/schemas/oic.r.height.json#",
10256                 "$schema": "http://json-schema.org/draft-04/schema#",
10257                 "description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All
10258 rights reserved.",
10259                 "title": "Height",
10260                 "definitions": {
10261                     "oic.r.height": {
10262                         "type": "object",
10263                         "properties": {
10264                             "height": {
10265                                 "type": "number",
10266                                 "minimum": 0,
10267                                 "description": "Height of an object"
10268                             }

```

```
10269         }
10270     },
10271 },
10272 "type": "object",
10273 "allOf": [
10274     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
10275     { "$ref": "#/definitions/oic.r.height" }
10276 ],
10277 "required": ["height"]
10278 }
10279
10280 example: /
10281 {
10282     "id": "unique_example_id",
10283     "height": 200.0
10284 }
10285
```

10286 **6.64.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
height	number	yes		Height of an object

10287 **6.64.6 CRUDN behavior**

Resource	Create	Read	Update	Delete	Notify
/HeightResURI		get	post		

10288 **6.65 Weight**

10289 **6.65.1 Introduction**

10290 This resource describes the properties associated with weight of an object. Weight (weight) is  
10291 weight of an object.

10292 **6.65.2 Example URI**

10293 /WeightResURI

10294 **6.65.3 Resource Type**

10295 The resource type (rt) is defined as: oic.r.weight.

10296 **6.65.4 RAML Definition**

```
10297 #%RAML 0.8
10298 title: OICWeight
10299 version: v1.1.0-20160519
10300 traits:
10301   - interface :
10302       queryParameters:
10303         if:
10304           enum: ["oic.if.s", "oic.if.baseline"]
10305
10306 /WeightResURI:
10307   description: |
10308     This resource describes the properties associated with weight of an object.
10309     Weight (weight) is weight of an object.
10310
10311   is : ['interface']
10312   get:
10313     description: |
10314       Retrieves weight of an object.
10315
```

```

10316     responses :
10317         200:
10318             body:
10319                 application/json:
10320                     schema: /
10321                         {
10322                             "id": "http://openinterconnect.org/schemas/oic.r.weight.json#",
10323                             "$schema": "http://json-schema.org/draft-04/schema#",
10324                             "description": "Copyright (c) 2016, 2017 Open Interconnect Consortium, Inc. All
10325 rights reserved.",
10326                             "title": "Weight",
10327                             "definitions": {
10328                                 "oic.r.weight": {
10329                                     "type": "object",
10330                                     "properties": {
10331                                         "weight": {
10332                                             "type": "number",
10333                                             "minimum": 0,
10334                                             "readOnly": true,
10335                                             "description": "Weight of an object"
10336                                         }
10337                                     }
10338                                 }
10339                             },
10340                             "type": "object",
10341                             "allOf": [
10342                                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
10343                                 { "$ref": "#/definitions/oic.r.weight" }
10344                             ],
10345                             "required": ["weight"]
10346                         }
10347
10348                     example: /
10349                         {
10350                             "rt": ["oic.r.weight"],
10351                             "id": "unique_example_id",
10352                             "weight": 200.0
10353                         }
10354

```

### 6.65.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
weight	number	yes	Read Only	Weight of an object

### 6.65.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/WeightResURI		get			

## 6.66 Air Quality

### 6.66.1 Introduction

This resource describes a qualitative or measured contaminant that can be used to infer Air Quality. Measured is the actual sensed value with units per contaminant type as described below. Qualitative is a representative value within the range provided where the minimum value is minimum contamination and maximum value is maximum contamination for the specific contaminant. The valueType indicates a qualitative or measured reading within the contaminantvalue Property. contaminantvalue contains the actual measured or qualitative level. range contains the allowed range for the value that is being reported (from oic.r.baseresource). If valueType is 'Measured' then the units for the contaminant types are as follows: Methanal (also known as Formaldehyde): CH<sub>2</sub>O (ug/m<sup>3</sup>), Carbon Dioxide: CO<sub>2</sub> (ppm), Carbon Monoxide: CO (ppm), Particulate Matter

10368 (less than 2.5 microns in diameter): PM2.5 (ug/m<sup>3</sup>), Particulate Matter (less than 10 microns in  
10369 diameter): PM10 (ug/m<sup>3</sup>), Volatile Organic Compounds: VOC (ug/m<sup>3</sup>)

## 10370 6.66.2 Example URI

10371 /AirQualityResURI

## 10372 6.66.3 Resource Type

10373 The resource type (rt) is defined as: oic.r.airquality.

## 10374 6.66.4 RAML Definition

```
10375 #%RAML 0.8
10376 title: OICAirQuality
10377 version: v1.1.0-20160519
10378 traits:
10379   - interface :
10380     queryParameters:
10381       if:
10382         enum: ["oic.if.s", "oic.if.baseline"]
10383
10384 /AirQualityResURI:
10385   description: |
10386     This resource describes a qualitative or measured contaminant that can be used to infer Air
10387     Quality.
10388     Measured is the actual sensed value with units per contaminant type as described below.
10389     Qualitative is a representative value within the range provided where the minium value is
10390     minimum contamination and maximum value is maximum contamination for the specific contaminant.
10391     The valueType indicates a qualitative or measured reading within the contaminantvalue Property.
10392     contaminantvalue contains the actual measured or qualitative level.
10393     range contains the allowed range for the value that is being reported (from
10394     oic.r.baseresource).
10395     If valueType is 'Measured' then the units for the contaminant types are as follows:
10396     Methanal (also known as Formaldehyde): CH2O (ug/m3),
10397     Carbon Dioxide: CO2 (ppm),
10398     Carbon Monoxide: CO (ppm),
10399     Particulate Matter (less than 2.5 microns in diameter): PM2.5 (ug/m3),
10400     Particulate Matter (less than 10 microns in diameter): PM10 (ug/m3),
10401     Volatile Organic Compounds: VOC (ug/m3)
10402
10403   is : ['interface']
10404   get:
10405     description: |
10406       Retrieves the current air quality.
10407
10408   responses :
10409     200:
10410       body:
10411         application/json:
10412           schema: /
10413             {
10414               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airquality.json#",
10415               "$schema": "http://json-schema.org/draft-04/schema#",
10416               "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
10417 reserved.",
10418               "title": "Air Quality",
10419               "definitions": {
10420                 "oic.r.airquality": {
10421                   "type": "object",
10422                   "properties": {
10423                     "contaminantvalue": {
10424                       "type": "integer",
10425                       "readOnly": true,
```

```

10426         "description": "The measured or qualitative value for the contaminant."
10427     },
10428     "contaminanttype": {
10429         "enum":
10430     ["CH2O", "CO2", "CO", "PM2.5", "PM10", "VOC", "Smoke", "Odor", "AirPollution"],
10431         "description": "The contaminant being measured.",
10432         "readOnly": true
10433     },
10434     "valuetype": {
10435         "enum": ["Qualitative", "Measured"],
10436         "description": "Indicates whether the provided value is qualitative or
10437 measured.",
10438         "readOnly": true
10439     }
10440 }
10441 }
10442 },
10443 "type": "object",
10444 "allof": [
10445     {"$ref": "oic.core.json#/definitions/oic.core"},
10446     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10447     {"$ref": "#/definitions/oic.r.airquality"}
10448 ],
10449 "required": ["contaminantvalue", "contaminanttype", "valuetype", "range"]
10450 }
10451
10452 example: /
10453 {
10454     "rt": ["oic.r.airquality"],
10455     "id": "unique_example_id",
10456     "contaminanttype": "CO",
10457     "valuetype": "Measured",
10458     "contaminantvalue": 10,
10459     "range": [0,500]
10460 }
10461

```

## 6.66.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
valuetype	multiple types: see schema	yes	Read Only	Indicates whether the provided value is qualitative or measured.
contaminantvalue	integer	yes	Read Only	The measured or qualitative value for the contaminant.
contaminanttype	multiple types: see schema	yes	Read Only	The contaminant being measured.

## 6.66.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/AirQualityResURI		get			

## 6.67 Air Quality Collection

### 6.67.1 Introduction

This resource describes a sensor that provides the qualitative or measured Air Quality. The resource is a collection of instances of oic.r.airquality detailing the individual exposed contaminant measures. There is one collection entry per contaminant type supported by the device. A device must expose at least one measured or qualitative value.



```

10470 6.67.2 Example URI
10471 /AirQualityBaselineResURI
10472 6.67.3 Resource Type
10473 The resource type (rt) is defined as: oic.r.airqualitycollection.
10474 6.67.4 RAML Definition
10475 #%RAML 0.8
10476 title: OICAirQuality
10477 version: v1.1.0-20160519
10478 traits:
10479   - interface-ll :
10480     queryParameters:
10481       if:
10482         enum: ["oic.if.ll"]
10483   - interface-baseline :
10484     queryParameters:
10485       if:
10486         enum: ["oic.if.baseline"]
10487
10488 /AirQualityBaselineResURI:
10489   description: |
10490     This resource describes a sensor that provides the qualitative or measured Air Quality.
10491   The resource is a collection of instances of oic.r.airquality detailing the individual exposed
10492   contaminant measures
10493   There is one collection entry per contaminant type supported by the device
10494   A device must expose at least one measured or qualitative value.
10495
10496   is : ['interface-baseline']
10497   get:
10498     description: |
10499       Retrieves the current air quality.
10500
10501   responses :
10502     200:
10503       body:
10504         application/json:
10505           schema: /
10506             {
10507               "id":
10508 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.airqualitycollection.json#",
10509               "$schema": "http://json-schema.org/draft-04/schema#",
10510               "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
10511 reserved.",
10512               "title": "Air Quality Collection",
10513               "definitions": {
10514                 "oic.r.airqualitycollection": {
10515                   "type": "object",
10516                   "allof": [
10517                     {
10518                       "$ref": "oic.collection-schema.json#/definitions/oic.collection"
10519                     },
10520                     {
10521                       "properties": {
10522                         "rt": {
10523                           "type": "array",
10524                           "minItems": 2,
10525                           "maxItems": 2,
10526                           "uniqueItems": true,
10527                           "items": {

```

```

10528         "enum": ["oic.r.airqualitycollection","oic.wk.col"]
10529     },
10530 },
10531 "rts": {
10532     "type": "array",
10533     "minItems": 1,
10534     "maxItems": 2,
10535     "uniqueItems": true,
10536     "items": {
10537         "oneOf": [
10538             {
10539                 "enum": ["oic.r.airquality","oic.r.value.conditional"]
10540             },
10541             {
10542                 "enum": ["oic.r.airquality"]
10543             }
10544         ]
10545     }
10546 },
10547 },
10548 },
10549 ],
10550 },
10551 },
10552 "type": "object",
10553 "allOf": [
10554     {"$ref": "oic.core.json#/definitions/oic.core"},
10555     {"$ref": "#/definitions/oic.r.airqualitycollection"}
10556 ]
10557 }
10558

```

```

10559 example: /
10560 {
10561     "rt": ["oic.r.airqualitycollection","oic.wk.col"],
10562     "if": ["oic.if.baseline","oic.if.ll"],
10563     "id": "unique_example_id",
10564     "links": [
10565         {"href": "/myCOMeasureResURI", "rt": ["oic.r.airquality"], "if":
10566 ["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
10567         {"href": "/myCO2ResURI", "rt": ["oic.r.airquality"], "if":
10568 ["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]}
10569     ]
10570 }
10571

```

## 6.67.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema			
rts	array: see schema			
drel	string			When specified this is the default relationship to use when an OIC Link does not specify an explicit relationship with *rel* parameter
links	multiple types: see schema			
id	multiple types: see schema			ID for the collection. Can

				be an value that is unique to the use context or a UUIDv4
rts	multiple types: see schema			Defines the list of allowable resource types (for Target and anchors) in links included in the collection; new links being created can only be from this list
di	multiple types: see schema			The device ID which is an UUIDv4 string; used for backward compatibility with Spec A definition of /oic/res

10573 **6.67.6 CRUDN behavior**

Resource	Create	Read	Update	Delete	Notify
/AirQualityBaselineResURI		get			

10574 **6.67.7 Referenced JSON schemas**

10575 **6.67.7.1 oic.collection-schema.json**

```

10576 {
10577     "$schema": "http://json-schema.org/draft-04/schema#",
10578     "description": "Copyright (c) 2016 Open Connectivity Foundation, Inc. All rights reserved.",
10579     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.collection-schema.json#",
10580     "title": "Collection",
10581     "definitions": {
10582         "oic.collection.setoflinks": {
10583             "description": "A set (array) of simple or individual OIC Links. In addition to
10584 properties required for an OIC Link, the identifier for that link in this set is also required",
10585             "type": "array",
10586             "items": {
10587                 "$ref": "oic.oic-link-schema.json#/definitions/oic.oic-link"
10588             }
10589         },
10590         "oic.collection.alllinks": {
10591             "description": "All forms of links in a collection",
10592             "oneOf": [
10593                 {
10594                     "$ref": "#/definitions/oic.collection.setoflinks"
10595                 }
10596             ]
10597         },
10598         "oic.collection": {
10599             "type": "object",
10600             "description": "A collection is a set (array) of tagged-link or set (array) of simple
10601 links along with additional properties to describe the collection itself",
10602             "properties": {
10603                 "id": {
10604                     "anyOf": [
10605                         {
10606                             "type": "integer",
10607                             "description": "A number that is unique to that collection; like an
10608 ordinal number that is not repeated"
10609                         }

```

```

10610         {
10611             "type": "string",
10612             "description": "A unique string that could be a hash or similarly
10613 unique"
10614         },
10615         {
10616             "$ref": "oic.types-schema.json#/definitions/uuid",
10617             "description": "A unique string that could be a UUIDv4"
10618         }
10619     ],
10620     "description": "ID for the collection. Can be an value that is unique to the
10621 use context or a UUIDv4"
10622 },
10623 "di": {
10624     "$ref": "oic.types-schema.json#/definitions/uuid",
10625     "description": "The device ID which is an UUIDv4 string; used for backward
10626 compatibility with Spec A definition of /oic/res"
10627 },
10628 "rts": {
10629     "$ref": "oic.core-schema.json#/definitions/oic.core/properties/rt",
10630     "description": "Defines the list of allowable resource types (for Target and
10631 anchors) in links included in the collection; new links being created can only be from this
10632 list"
10633 },
10634 "drel": {
10635     "type": "string",
10636     "description": "When specified this is the default relationship to use when an
10637 OIC Link does not specify an explicit relationship with *rel* parameter"
10638 },
10639 "links": {
10640     "$ref": "#/definitions/oic.collection.alllinks"
10641 }
10642 },
10643 },
10644 "type": "object",
10645 "allOf": [
10646     {"$ref": "oic.core-schema.json#/definitions/oic.core"},
10647     {"$ref": "#/definitions/oic.collection"}
10648 ]
10649 }
10650

```

## 6.68 Consumable

### 6.68.1 Introduction

This resource specifies a thing that can be consumed such as filter material, printer toner etc The type is an enumeration defining the thing being consumed as defined by the Smart Home Device Specification The remaining is an integer capturing the percentatge remaining life The orderpercentage is an integer capturing the percentage life at which replacement or replenishment is recommended by the manufacturer The url is a string containing a URL at which further information may be obtained with respect to the consumable

### 6.68.2 Example URI

/ConsumableResURI

### 6.68.3 Resource Type

The resource type (rt) is defined as: oic.r.consumable.

### 6.68.4 RAML Definition

```

10664 #%RAML 0.8
10665 title: OICConsumables
10666 version: OCF-v1.0.0-20160620
10667 traits:
10668   - interface :
10669       queryParameters:
10670           if:

```

```

10671         enum: ["oic.if.s", "oic.if.baseline"]
10672
10673 /ConsumableResURI:
10674     description: |
10675         This resource specifies a thing that can be consumed such as filter material, printer toner etc
10676         The type is an enumeration defining the thing being consumed as defined by the Smart Home
10677 Device Specification
10678         The remaining is an integer capturing the percentatge remaining life
10679         The orderpercentage is an integer capturing the percentage life at which replacement or
10680 replenishment is recommended by the manufacturer
10681         The url is a string containing a URL at which further information may be obtained with respect
10682 to the consumable
10683
10684     is : ['interface']
10685     get:
10686         responses :
10687             200:
10688                 body:
10689                     application/json:
10690                         schema: /
10691                             {
10692                                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.consumable#",
10693                                 "$schema": "http://json-schema.org/draft-04/schema#",
10694                                 "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
10695 reserved.",
10696                                 "title": "Consumable",
10697                                 "definitions": {
10698                                     "oic.r.consumable": {
10699                                         "type": "object",
10700                                         "properties": {
10701                                             "typeofconsumable": {
10702                                                 "type": "string",
10703                                                 "description": "Thing that is being consumed.",
10704                                                 "readOnly": true
10705                                             },
10706                                             "remaining": {
10707                                                 "type": "integer",
10708                                                 "description": "Percentage remaining lifespan.",
10709                                                 "readOnly": true,
10710                                                 "minimum": 0,
10711                                                 "maximum": 100
10712                                             },
10713                                             "orderpercentage": {
10714                                                 "type": "integer",
10715                                                 "description": "Percentage at which re-ordering is recommended by the
10716 manufacturer",
10717                                                 "readOnly": true
10718                                             },
10719                                             "url": {
10720                                                 "type": "string",
10721                                                 "format": "uri",
10722                                                 "description": "URL at which additional ordering information may be
10723 found.",
10724                                                 "readOnly": true
10725                                             }
10726                                         }
10727                                     }
10728                                 },
10729                                 "type": "object",
10730                                 "allOf": [
10731                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
10732                                     {"$ref": "#/definitions/oic.r.consumable"}
10733                                 ],
10734                                 "required": ["typeofconsumable", "remaining"]
10735                             }
10736

```

```

10737     example: /
10738     {
10739         "rt":          ["oic.r.consumable"],
10740         "id":          "unique_example_id",
10741         "typeofconsumable": "tonerBlack",
10742         "remaining":    20,
10743         "orderpercentage": 10,
10744         "url":          "http://myreorderURL"
10745     }
10746

```

## 10747 6.68.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
url	string		Read Only	URL at which additional ordering information may be found.
typeofconsumable	string	yes	Read Only	Thing that is being consumed.
remaining	integer	yes	Read Only	Percentage remaining lifespan.
orderpercentage	integer		Read Only	Percentage at which re-ordering is recommended by the manufacturer

## 10748 6.68.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/ConsumableResURI		get			

## 10749 6.69 Consumable Collection

### 10750 6.69.1 Introduction

10751 This resource specifies things that can be consumed such as filter material, printer toner etc The  
 10752 resource is a collection of instances of oic.r.consumable detailing the individual consumed items  
 10753 supportedconsumables is the set of consumable types that this instance of the Resource supports

### 10754 6.69.2 Example URI

10755 /ConsumablesBaselineResURI

### 10756 6.69.3 Resource Type

10757 The resource type (rt) is defined as: oic.r.consumablecollection.

### 10758 6.69.4 RAML Definition

```

10759 #%RAML 0.8
10760 title: OICConsumables
10761 version: OCF-v1.0.0-20160620
10762 traits:
10763   - interface-ll :
10764       queryParameters:
10765         if:
10766             enum: ["oic.if.ll"]
10767   - interface-baseline :
10768       queryParameters:
10769         if:
10770             enum: ["oic.if.baseline"]

```

```

10771
10772 /ConsumablesBaselineResURI:
10773     description: |
10774         This resource specifies things that can be consumed such as filter material, printer toner etc
10775         The resource is a collection of instances of oic.r.consumable detailing the individual consumed
10776 items
10777         supportedconsumables is the set of consumable types that this instance of the Resource supports
10778
10779     is : ['interface-baseline']
10780
10781     get:
10782         responses :
10783             200:
10784                 body:
10785                     application/json:
10786                         schema: /
10787                             {
10788                                 "id":
10789 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.consumablecollection#",
10790                                 "$schema": "http://json-schema.org/draft-04/schema#",
10791                                 "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
reserved.",
10792                                 "title": "Consumables Collection",
10793                                 "definitions": {
10794                                     "oic.r.consumablecollection": {
10795                                         "type": "object",
10796                                         "allof": [
10797                                             {
10798                                                 "$ref": "oic.collection-schema.json#/definitions/oic.collection"
10799                                             },
10800                                             {
10801                                                 "properties": {
10802                                                     "rt": {
10803                                                         "type": "array",
10804                                                         "minItems": 2,
10805                                                         "maxItems": 2,
10806                                                         "uniqueItems": true,
10807                                                         "items": {
10808                                                             "enum": ["oic.r.consumablecollection", "oic.wk.col"]
10809                                                         }
10810                                                     },
10811                                                     "rts": {
10812                                                         "type": "array",
10813                                                         "minItems": 1,
10814                                                         "maxItems": 2,
10815                                                         "uniqueItems": true,
10816                                                         "items": {
10817                                                             "anyOf": [
10818                                                                 {
10819                                                                     "enum": ["oic.r.consumable", "oic.r.value.conditional"]
10820                                                                 },
10821                                                                 {
10822                                                                     "enum": ["oic.r.consumable"]
10823                                                                 }
10824                                                             ]
10825                                                         }
10826                                                     },
10827                                                     "supportedconsumables": {
10828                                                         "type": "array",
10829                                                         "description": "Array of possible consumables the device measures.",
10830                                                         "readOnly": true,
10831                                                         "items": {
10832                                                             "type": "string"
10833                                                         }
10834                                                     }
10835                                                 }
10836                                         }
10837                                     }
10838                                 }
10839                             }

```

```

10837         ]
10838     },
10839 },
10840 "type": "object",
10841 "allOf": [
10842     {"$ref": "oic.core.json#/definitions/oic.core"},
10843     {"$ref": "#/definitions/oic.r.consumablecollection"}
10844 ]
10845 }
10846
10847 example: /
10848 {
10849     "rt": ["oic.r.consumablecollection", "oic.wk.col"],
10850     "id": "unique_example_id",
10851     "rts": ["oic.r.consumable", "oic.r.value.conditional"],
10852     "supportedconsumables": ["tonerBlack", "tonerCyan", "tonerMagenta", "tonerYellow"],
10853     "links": [
10854         {"href": "/myTonerBlackResURI", "rt": ["oic.r.consumable"], "if":
10855 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
10856         {"href": "/myTonerCyanResURI", "rt": ["oic.r.consumable"], "if":
10857 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
10858         {"href": "/myTonerMagentaResURI", "rt": ["oic.r.consumable"], "if":
10859 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
10860         {"href": "/myTonerYellowResURI", "rt": ["oic.r.consumable"], "if":
10861 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]}
10862     ]
10863 }
10864

```

#### 6.69.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema			
supportedconsumables	array: see schema		Read Only	Array of possible consumables the device measures.
rts	array: see schema			
drel	string			When specified this is the default relationship to use when an OIC Link does not specify an explicit relationship with *rel* parameter
links	multiple types: see schema			
id	multiple types: see schema			ID for the collection. Can be a value that is unique to the use context or a UUIDv4
rts	multiple types: see schema			Defines the list of allowable resource types



				(for Target and anchors) in links included in the collection; new links being created can only be from this list
di	multiple types: see schema			The device ID which is an UUIDv4 string; used for backward compatibility with Spec A definition of /oic/res

## 6.69.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/ConsumablesBaselineResURI		get			

## 6.69.7 Referenced JSON schemas

### 6.69.7.1 oic.collection-schema.json

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description": "Copyright (c) 2016 Open Connectivity Foundation, Inc. All rights reserved.",
  "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.collection-schema.json#",
  "title": "Collection",
  "definitions": {
    "oic.collection.setoflinks": {
      "description": "A set (array) of simple or individual OIC Links. In addition to
properties required for an OIC Link, the identifier for that link in this set is also required",
      "type": "array",
      "items": {
        "$ref": "oic.oic-link-schema.json#/definitions/oic.oic-link"
      }
    },
    "oic.collection.alllinks": {
      "description": "All forms of links in a collection",
      "oneOf": [
        {
          "$ref": "#/definitions/oic.collection.setoflinks"
        }
      ]
    },
    "oic.collection": {
      "type": "object",
      "description": "A collection is a set (array) of tagged-link or set (array) of simple
links along with additional properties to describe the collection itself",
      "properties": {
        "id": {
          "anyOf": [
            {
              "type": "integer",
              "description": "A number that is unique to that collection; like an
ordinal number that is not repeated"
            },
            {
              "type": "string",
              "description": "A unique string that could be a hash or similarly
unique"
            }
          ],
          "$ref": "oic.types-schema.json#/definitions/uuid",

```

```

10910         "description": "A unique string that could be a UUIDv4"
10911     },
10912 ],
10913     "description": "ID for the collection. Can be an value that is unique to the
10914 use context or a UUIDv4"
10915 },
10916     "di": {
10917         "$ref": "oic.types-schema.json#/definitions/uuid",
10918         "description": "The device ID which is an UUIDv4 string; used for backward
10919 compatibility with Spec A definition of /oic/res"
10920     },
10921     "rts": {
10922         "$ref": "oic.core-schema.json#/definitions/oic.core/properties/rt",
10923         "description": "Defines the list of allowable resource types (for Target and
10924 anchors) in links included in the collection; new links being created can only be from this
10925 list"
10926     },
10927     "drel": {
10928         "type": "string",
10929         "description": "When specified this is the default relationship to use when an
10930 OIC Link does not specify an explicit relationship with *rel* parameter"
10931     },
10932     "links": {
10933         "$ref": "#/definitions/oic.collection.alllinks"
10934     }
10935 },
10936 },
10937 "type": "object",
10938 "allof": [
10939     {"$ref": "oic.core-schema.json#/definitions/oic.core"},
10940     {"$ref": "#/definitions/oic.collection"}
10941 ]
10942 }
10943

```

## 10944 6.70 Delay Defrost

### 10945 6.70.1 Introduction

10946 This resource describes the delay defrost function as defined by the US Energy Star Specifications.  
10947 See Energy Star Refrigerator Requirements Version 5 Section 4)G  
10948 (<https://www.energystar.gov/sites/default/files/specs//private/ENERGY%20STAR%20Final%20Version%205.0%20Residential%20Refrigerators%20and%20Freezers%20Program%20Requirement%20s.pdf>)  
10949 The status is a boolean indicating whether the function is on, if off then defrost is scheduled  
10950 as part of normal device operation. startTime, from oir.r.time.period (mandatory) is an ISO8601  
10951 encoded start time for the interval in which defrost shall not occur. stopTime, from oic.r.time.period  
10952 is an ISO8601 encoded stop time for the interval in which defrost shall not occur. interval, from  
10953 oic.r.time.period with additional range restrictions is the time in minutes of the period that starts at  
10954 starttime (if not present the default is 240). stopTime and interval are mutually exclusive; they  
10955 cannot both be present in a Resource instance  
10956

### 10957 6.70.2 Example URI

10958 /DelayDefrostResURI

### 10959 6.70.3 Resource Type

10960 The resource type (rt) is defined as: oic.r.delaydefrost.

### 10961 6.70.4 RAML Definition

```

10962 #%RAML 0.8
10963 title: OICDelayDefrost
10964 version: OCF_v1.0.0-2016____
10965 traits:
10966   - interface :
10967       queryParameters:
10968           if:
10969               enum: ["oic.if.a", "oic.if.baseline"]

```

```

10970
10971 /DelayDefrostResURI:
10972     description: |
10973         This resource describes the delay defrost function as defined by the US Energy Star
10974         Specifications.
10975         See Energy Star Refrigerator Requirements Version 5 Section 4)G
10976
10977         (https://www.energystar.gov/sites/default/files/specs//private/ENERGY%20STAR%20Final%20Version%205.
10978         0%20Residential%20Refrigerators%20and%20Freezers%20Program%20Requirements.pdf)
10979         The status is a boolean indicating whether the function is on, if off then defrost is scheduled
10980         as part of normal device operation.
10981         startTime, from oic.r.time.period (mandatory) is an ISO8601 encoded start time for the interval
10982         in which defrost shall not occur.
10983         stopTime, from oic.r.time.period is an ISO8601 encoded stop time for the interval in which
10984         defrost shall not occur.
10985         interval, from oic.r.time.period with additional range restrictions is the time in minutes of
10986         the period that starts at starttime (if not present the default is 240).
10987         stopTime and interval are mutually exclusive; they cannot both be present in a Resource instance
10988
10989     is : ['interface']
10990
10991     get:
10992         description: |
10993             Retrieves the current Delay Defrost function status
10994
10995     responses :
10996         200:
10997             body:
10998                 application/json:
10999                     schema: /
11000                     {
11001                         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.delaydefrost.json#",
11002                         "$schema": "http://json-schema.org/draft-04/schema#",
11003                         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
rights reserved.",
11004                         "title": "Delay Defrost",
11005                         "definitions": {
11006                             "oic.r.delaydefrost": {
11007                                 "type": "object",
11008                                 "allOf": [
11009                                     {
11010                                         "$ref": "oic.r.time.period.json#/definitions/oic.r.time.period"
11011                                     },
11012                                     {
11013                                         "properties": {
11014                                             "interval": {
11015                                                 "type": "integer",
11016                                                 "description": "Defrost interval as defined by Energy Star",
11017                                                 "minimum": 1,
11018                                                 "maximum": 1440,
11019                                                 "default": 240
11020                                             },
11021                                             "status": {
11022                                                 "type": "boolean",
11023                                                 "description": "Indicates whether any supported delay defrost function
is active"
11024                                             }
11025                                         }
11026                                     },
11027                                     "required": ["status"]
11028                                 }
11029                             }
11030                         ],
11031                         "type": "object",
11032                         "allOf": [
11033                             {
11034                                 "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},

```

```

11035         {"$ref": "#/definitions/oic.r.delaydefrost"}
11036     ]
11037 }
11038
11039 example: /
11040 {
11041     "rt":      ["oic.r.delaydefrost"],
11042     "id":      "unique_example_id",
11043     "startTime": "06:00Z",
11044     "status": false
11045 }
11046
11047 post:
11048     description: |
11049         Activates the desired Delay Defrost functions
11050
11051     body:
11052         application/json:
11053             schema: /
11054                 {
11055                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.delaydefrost.json#",
11056                     "$schema": "http://json-schema.org/draft-04/schema#",
11057                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
11058 reserved.",
11059                     "title": "Delay Defrost",
11060                     "definitions": {
11061                         "oic.r.delaydefrost": {
11062                             "type": "object",
11063                             "allOf": [
11064                                 {
11065                                     "$ref": "oic.r.time.period.json#/definitions/oic.r.time.period"
11066                                 },
11067                                 {
11068                                     "properties": {
11069                                         "interval": {
11070                                             "type": "integer",
11071                                             "description": "Defrost interval as defined by Energy Star",
11072                                             "minimum": 1,
11073                                             "maximum": 1440,
11074                                             "default": 240
11075                                         },
11076                                         "status": {
11077                                             "type": "boolean",
11078                                             "description": "Indicates whether any supported delay defrost function is
11079 active"
11080                                         }
11081                                     },
11082                                     "required": ["status"]
11083                                 }
11084                             ]
11085                         }
11086                     },
11087                     "type": "object",
11088                     "allOf": [
11089                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11090                         {"$ref": "#/definitions/oic.r.delaydefrost"}
11091                     ]
11092                 }
11093
11094             example: /
11095                 {
11096                     "id":      "unique_example_id",
11097                     "status": true,
11098                     "startTime": "06:00Z",
11099                     "interval": 180

```

```

11100     }
11101
11102     responses :
11103         200:
11104             description: |
11105                 Indicates that the DelayDefrost function was changed.
11106                 The new representation may be provided in the response.
11107
11108             body:
11109                 application/json:
11110                     schema: /
11111                         {
11112                             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.delaydefrost.json#",
11113                             "$schema": "http://json-schema.org/draft-04/schema#",
11114                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
11115 rights reserved.",
11116                             "title": "Delay Defrost",
11117                             "definitions": {
11118                                 "oic.r.delaydefrost": {
11119                                     "type": "object",
11120                                     "allof": [
11121                                         {
11122                                             "$ref": "oic.r.time.period.json#/definitions/oic.r.time.period"
11123                                         },
11124                                         {
11125                                             "properties": {
11126                                                 "interval": {
11127                                                     "type": "integer",
11128                                                     "description": "Defrost interval as defined by Energy Star",
11129                                                     "minimum": 1,
11130                                                     "maximum": 1440,
11131                                                     "default": 240
11132                                                 },
11133                                                 "status": {
11134                                                     "type": "boolean",
11135                                                     "description": "Indicates whether any supported delay defrost function
11136 is active"
11137                                                 }
11138                                             },
11139                                             "required": ["status"]
11140                                         }
11141                                     ]
11142                                 }
11143                             },
11144                             "type": "object",
11145                             "allof": [
11146                                 { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
11147                                 { "$ref": "#/definitions/oic.r.delaydefrost" }
11148                             ]
11149                         }
11150
11151                     example: /
11152                         {
11153                             "id": "unique_example_id",
11154                             "status": true,
11155                             "startTime": "06:00Z",
11156                             "interval": 180
11157                         }
11158
11159         403:
11160             description: |
11161                 Indicates the update to the time properties was rejected.
11162                 Reasons for rejection:
11163                 invalid time entry

```

```

11164         The current unchanged representation may be provided in the response.
11165
11166     body:
11167         application/json:
11168             schema: /
11169                 {
11170                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.delaydefrost.json#",
11171                     "$schema": "http://json-schema.org/draft-04/schema#",
11172                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
11173 rights reserved.",
11174                     "title": "Delay Defrost",
11175                     "definitions": {
11176                         "oic.r.delaydefrost": {
11177                             "type": "object",
11178                             "allOf": [
11179                                 {
11180                                     "$ref": "oic.r.time.period.json#/definitions/oic.r.time.period"
11181                                 },
11182                                 {
11183                                     "properties": {
11184                                         "interval": {
11185                                             "type": "integer",
11186                                             "description": "Defrost interval as defined by Energy Star",
11187                                             "minimum": 1,
11188                                             "maximum": 1440,
11189                                             "default": 240
11190                                         },
11191                                         "status": {
11192                                             "type": "boolean",
11193                                             "description": "Indicates whether any supported delay defrost function
11194 is active"
11195                                         }
11196                                     },
11197                                     "required": ["status"]
11198                                 }
11199                             ]
11200                         }
11201                     },
11202                     "type": "object",
11203                     "allOf": [
11204                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11205                         {"$ref": "#/definitions/oic.r.delaydefrost"}
11206                     ]
11207                 }
11208
11209             example: /
11210                 {
11211                     "id": "unique_example_id",
11212                     "status": true,
11213                     "startTime": "06:00Z",
11214                     "interval": 180
11215                 }
11216

```

## 6.70.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
status	boolean	yes		Indicates whether any supported delay defrost function is active
interval	integer			Defrost interval as defined by Energy Star

stopTime	string			Stop time for the time period, if present interval cannot be present
startTime	string	yes		Start time for the time period
interval	integer			Time interval in minutes after the startTime, if present stopTime cannot be present

## 6.70.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/DelayDefrostResURI		get	post		

## 6.70.7 Referenced JSON schemas

### 6.70.7.1 oic.r.time.period.json

```
{
  "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.time.period.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights reserved.",
  "title": "Time Period",
  "definitions": {
    "oic.r.time.period": {
      "type": "object",
      "properties": {
        "startTime": {
          "type": "string",
          "description": "Start time for the time period"
        },
        "stopTime": {
          "type": "string",
          "description": "Stop time for the time period, if present interval cannot be present"
        },
        "interval": {
          "type": "integer",
          "description": "Time interval in minutes after the startTime, if present stopTime cannot be present"
        }
      },
      "required": ["startTime"]
    }
  },
  "type": "object",
  "allOf": [
    { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
    { "$ref": "#/definitions/oic.r.time.period" }
  ]
}
```

## 6.71 Eco Mode

### 6.71.1 Introduction

This resource specifies the supported and currently active Eco Mode of a Device The Resource uses the existing schema for Mode (oic.r.mode) with a restriction that the population of supportedmodes and modes Properties is restricted to the set of values given below: "disabled","enabled","notsupported" The adminforced Property indicates that the value has been set by another party (e.g. via some offboard Smart Energy interaction)

```

11262 6.71.2 Example URI
11263 /EcomodeResURI
11264 6.71.3 Resource Type
11265 The resource type (rt) is defined as: oic.r.ecomode.
11266 6.71.4 RAML Definition
11267 #%RAML 0.8
11268 title: OICEcomode
11269 version: OCF-v1.0.0-20160620
11270 traits:
11271   - interface :
11272       queryParameters:
11273         if:
11274           enum: ["oic.if.a", "oic.if.baseline"]
11275
11276 /EcomodeResURI:
11277   description: |
11278     This resource specifies the supported and currently active Eco Mode of a Device
11279     The Resource uses the existing schema for Mode (oic.r.mode) with a restriction that the
11280     population of supportedmodes and modes Properties is restricted to the set of values given below:
11281     "disabled","enabled","notsupported"
11282     The adminforced Property indicates that the value has been set by another party (e.g
11283     via some offboard Smart Energy interaction)
11284
11285   is : ['interface']
11286   get:
11287     responses :
11288       200:
11289         body:
11290           application/json:
11291             schema: /
11292               {
11293                 "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.ecomode#",
11294                 "$schema": "http://json-schema.org/draft-04/schema#",
11295                 "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
11296 rights reserved.",
11297                 "title": "Eco Mode",
11298                 "definitions": {
11299                   "oic.r.ecomode": {
11300                     "type": "object",
11301                     "allOf": [
11302                       {
11303                         "$ref": "oic.r.mode.json#/definitions/oic.r.mode"
11304                       },
11305                       {
11306                         "properties": {
11307                           "adminforced": {
11308                             "type": "boolean",
11309                             "readOnly": true,
11310                             "description": "Indicator that the current mode of operation has
11311 been forced by admin action."
11312                           }
11313                         }
11314                       }
11315                     ]
11316                   }
11317                 },
11318                 "type": "object",
11319                 "allOf": [
11320                   { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
11321                   { "$ref": "#/definitions/oic.r.ecomode" }
11322                 ]
11323               }

```



```

11322         ],
11323         "required": ["supportedModes", "modes"]
11324     }
11325
11326     example: /
11327     {
11328         "rt": ["oic.r.ecomode"],
11329         "id": "unique_example_id",
11330         "supportedModes": ["disabled", "enabled"],
11331         "modes": ["disabled"],
11332         "adminforced": false
11333     }
11334
11335     post:
11336     body:
11337     application/json:
11338     schema: /
11339     {
11340         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.ecomode-Update#",
11341         "$schema": "http://json-schema.org/draft-04/schema#",
11342         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
11343 reserved.",
11344         "title": "Eco Mode",
11345         "definitions": {
11346             "oic.r.ecomode": {
11347                 "type": "object",
11348                 "allOf": [
11349                     {
11350                         "$ref": "oic.r.mode-update.json#/definitions/oic.r.mode"
11351                     }
11352                 ]
11353             }
11354         },
11355         "type": "object",
11356         "allOf": [
11357             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11358             {"$ref": "#/definitions/oic.r.ecomode"}
11359         ],
11360         "required": ["modes"]
11361     }
11362
11363     example: /
11364     {
11365         "id": "unique_example_id",
11366         "modes": ["enabled"]
11367     }
11368
11369     responses :
11370     200:
11371     body:
11372     application/json:
11373     schema: /
11374     {
11375         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.ecomode-Update#",
11376         "$schema": "http://json-schema.org/draft-04/schema#",
11377         "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
11378 rights reserved.",
11379         "title": "Eco Mode",
11380         "definitions": {
11381             "oic.r.ecomode": {
11382                 "type": "object",
11383                 "allOf": [
11384                     {
11385                         "$ref": "oic.r.mode-update.json#/definitions/oic.r.mode"

```

```

11386         }
11387     ]
11388 }
11389 },
11390 "type": "object",
11391 "allOf": [
11392     { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
11393     { "$ref": "#/definitions/oic.r.ecomode" }
11394 ],
11395 "required": [ "modes" ]
11396 }
11397
11398 example: /
11399 {
11400     "id": "unique_example_id",
11401     "modes": [ "enabled" ]
11402 }
11403

```

## 6.71.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
adminforced	boolean		Read Only	Indicator that the current mode of operation has been forced by admin action.
supportedModes	array: schema see	yes	Read Only	Array of possible modes the device supports.
modes	array: schema see	yes		Array of the currently active mode(s)

## 6.71.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/EcomodeResURI		get	post		

## 6.71.7 Referenced JSON schemas

### 6.71.7.1 oic.r.mode.json

```

11408 {
11409     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.mode.json#",
11410     "$schema": "http://json-schema.org/draft-04/schema#",
11411     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
11412 reserved.",
11413     "title": "Mode",
11414     "definitions": {
11415         "oic.r.mode": {
11416             "type": "object",
11417             "properties": {
11418                 "supportedModes": {
11419                     "type": "array",
11420                     "readOnly": true,
11421                     "description": "Array of possible modes the device supports.",
11422                     "items": {
11423                         "type": "string"
11424                     }
11425                 },
11426                 "modes": {
11427                     "type": "array",
11428                     "description": "Array of the currently active mode(s)",
11429                     "items": {
11430                         "type": "string"
11431                     }
11432                 }
11433             }
11434         }
11435     }
11436 }

```

```

11433     }
11434   }
11435 },
11436 "type": "object",
11437 "allOf": [
11438   { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
11439   { "$ref": "#/definitions/oic.r.mode" }
11440 ],
11441 "required": ["supportedModes", "modes"]
11442 }
11443

```

## 11444 6.72 Heating Zone

### 11445 6.72.1 Introduction

11446 This Resource provides information about the status of a heating zone of a Cook-Top. It describes  
 11447 the case of a Cook-Top whose zones can be activated dynamically (i.e. the device implements pot  
 11448 recognition). maxheatinglevel defines the max level for the heating zone heatinglevel is the current  
 11449 heating level of the zone For each element the value range is from 0 (indication that the zone is  
 11450 not heating) to maxheatinglevel,

### 11451 6.72.2 Example URI

11452 /HeatingZoneResURI

### 11453 6.72.3 Resource Type

11454 The resource type (rt) is defined as: oic.r.heatingzone.

### 11455 6.72.4 RAML Definition

```

11456 #%RAML 0.8
11457 title: OICHeatingZone
11458 version: OCF1.0-20160722
11459 traits:
11460   - interface :
11461       queryParameters:
11462         if:
11463           enum: ["oic.if.s", "oic.if.baseline"]
11464
11465 /HeatingZoneResURI:
11466   description: |
11467     This Resource provides information about the status of a heating zone of a Cook-Top.
11468     It describes the case of a Cook-Top whose zones can be activated dynamically (i.e
11469     the device implements pot recognition).
11470     maxheatinglevel defines the max level for the heating zone
11471     heatinglevel is the current heating level of the zone
11472     For each element the value range is from 0 (indication that the zone is not heating) to
11473     maxheatinglevel,
11474
11475   is : ['interface']
11476   get:
11477     description: |
11478       Retrieves the current heating zone information.
11479
11480   responses :
11481     200:
11482       body:
11483         application/json:
11484           schema: /
11485             {
11486               "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.heatingzone.json#",
11487               "$schema": "http://json-schema.org/draft-04/schema#",

```

```

11488         "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
11489 reserved.",
11490         "title": "Heating Zone",
11491         "definitions": {
11492             "oic.r.heatingzone": {
11493                 "type": "object",
11494                 "properties": {
11495                     "maxheatinglevel": {
11496                         "type": "integer",
11497                         "readOnly": true,
11498                         "description": "Maximum heating level for the zone indicated."
11499                     },
11500                     "heatinglevel": {
11501                         "type": "integer",
11502                         "readOnly": true,
11503                         "description": "Current heating level for the zone indicated."
11504                     }
11505                 }
11506             },
11507         },
11508         "type": "object",
11509         "allOf": [
11510             { "$ref": "oic.baseResource.json#/definitions/oic.r.baseresource" },
11511             { "$ref": "#/definitions/oic.r.heatingzone" }
11512         ],
11513         "required": [ "maxheatinglevel", "heatinglevel" ]
11514     }
11515
11516     example: /
11517     {
11518         "rt":          ["oic.r.heatingzone"],
11519         "id":          "unique_example_id",
11520         "maxheatinglevel": 6,
11521         "heatinglevel": 0
11522     }
11523

```

## 6.72.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
heatinglevel	integer	yes	Read Only	Current heating level for the zone indicated.
maxheatinglevel	integer	yes	Read Only	Maximum heating level for the zone indicated.

## 6.72.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/HeatingZoneResURI		get			

## 6.73 Heating Zone Collection

### 6.73.1 Introduction

This Resource provides information about the status of the heating zones of a Cook-Top. It describes the case of a Cook-Top whose zones can be activated dynamically (i.e. the device implements pot recognition). The resource is a collection of instances of oic.r.heatingzone detailing the individual cooktop zones

### 6.73.2 Example URI

/HeatingZoneBaselineResURI

### 6.73.3 Resource Type

The resource type (rt) is defined as: oic.r.heatingzonecollection.

#### 6.73.4 RAML Definition

```
11536 6.73.4 RAML Definition
11537 #%RAML 0.8
11538 title: OICHeatingZone
11539 version: OCF1.0-20160722
11540 traits:
11541   - interface-ll :
11542     queryParameters:
11543       if:
11544         enum: ["oic.if.ll"]
11545   - interface-baseline :
11546     queryParameters:
11547       if:
11548         enum: ["oic.if.baseline"]
11549
11550 /HeatingZoneBaselineResURI:
11551   description: |
11552     This Resource provides information about the status of the heating zones of a Cook-Top.
11553     It describes the case of a Cook-Top whose zones can be activated dynamically (i.e
11554     the device implements pot recognition).
11555     The resource is a collection of instances of oic.r.heatingzone detailing the individual cooktop
11556     zones
11557
11558   is : ['interface-baseline']
11559   get:
11560     description: |
11561       Retrieves the current heating zone information.
11562
11563   responses :
11564     200:
11565       body:
11566         application/json:
11567           schema: /
11568             {
11569               "id":
11570 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.heatingzonecollection.json#",
11571               "$schema": "http://json-schema.org/draft-04/schema#",
11572               "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
11573 reserved.",
11574               "title": "Heating Zone Collection",
11575               "definitions": {
11576                 "oic.r.heatingzonecollection": {
11577                   "type": "object",
11578                   "allOf": [
11579                     {
11580                       "$ref": "oic.collection-schema.json#/definitions/oic.collection"
11581                     },
11582                     {
11583                       "properties": {
11584                         "rt": {
11585                           "type": "array",
11586                           "minItems": 2,
11587                           "maxItems": 2,
11588                           "uniqueItems": true,
11589                           "items": {
11590                             "enum": ["oic.r.heatingzonecollection", "oic.wk.col"]
11591                           }
11592                         },
11593                         "rts": {
11594                           "type": "array",
11595                           "minItems": 1,
11596                           "maxItems": 2,
```

```

11597         "uniqueItems": true,
11598         "items": {
11599             "anyOf": [
11600                 {
11601                     "enum": ["oic.r.heatingzone", "oic.r.value.conditional"]
11602                 },
11603                 {
11604                     "enum": ["oic.r.heatingzone"]
11605                 }
11606             ]
11607         },
11608     },
11609 },
11610 ],
11611 ],
11612 },
11613 },
11614 "type": "object",
11615 "allof": [
11616     {"$ref": "oic.core.json#/definitions/oic.core"},
11617     {"$ref": "#/definitions/oic.r.heatingzonecollection"}
11618 ],
11619 },
11620
11621 example: /
11622 {
11623     "rt": ["oic.r.heatingzonecollection", "oic.wk.col"],
11624     "id": "unique_example_id",
11625     "links": [
11626         {"href": "/myZone1ResURI", "rt": ["oic.r.heatingzone"], "if":
11627 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
11628         {"href": "/myZone2ResURI", "rt": ["oic.r.heatingzone"], "if":
11629 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
11630         {"href": "/myZone3ResURI", "rt": ["oic.r.heatingzone"], "if":
11631 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
11632         {"href": "/myZone4ResURI", "rt": ["oic.r.heatingzone"], "if":
11633 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]}
11634     ]
11635 }
11636

```

### 6.73.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema			
rts	array: see schema			
drel	string			When specified this is the default relationship to use when an OIC Link does not specify an explicit relationship with *rel* parameter
links	multiple types: see schema			
id	multiple types: see schema			ID for the collection. Can be an value that is unique to the

				use context or a UUIDv4
rts	multiple types: see schema			Defines the list of allowable resource types (for Target and anchors) in links included in the collection; new links being created can only be from this list
di	multiple types: see schema			The device ID which is an UUIDv4 string; used for backward compatibility with Spec A definition of /oic/res

## 6.73.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/HeatingZoneBaselineResURI		get			

## 6.73.7 Referenced JSON schemas

### 6.73.7.1 oic.collection-schema.json

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description": "Copyright (c) 2016 Open Connectivity Foundation, Inc. All rights reserved.",
  "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.collection-schema.json#",
  "title": "Collection",
  "definitions": {
    "oic.collection.setoflinks": {
      "description": "A set (array) of simple or individual OIC Links. In addition to
properties required for an OIC Link, the identifier for that link in this set is also required",
      "type": "array",
      "items": {
        "$ref": "oic.oic-link-schema.json#/definitions/oic.oic-link"
      }
    },
    "oic.collection.alllinks": {
      "description": "All forms of links in a collection",
      "oneOf": [
        {
          "$ref": "#/definitions/oic.collection.setoflinks"
        }
      ]
    },
    "oic.collection": {
      "type": "object",
      "description": "A collection is a set (array) of tagged-link or set (array) of simple
links along with additional properties to describe the collection itself",
      "properties": {
        "id": {
          "anyOf": [
            {
              "type": "integer",
              "description": "A number that is unique to that collection; like an
ordinal number that is not repeated"
            },
            {
              "type": "string",
```

```

11677         "description": "A unique string that could be a hash or similarly
11678 unique"
11679     },
11680     {
11681         "$ref": "oic.types-schema.json#/definitions/uuid",
11682         "description": "A unique string that could be a UUIDv4"
11683     }
11684 ],
11685     "description": "ID for the collection. Can be an value that is unique to the
11686 use context or a UUIDv4"
11687 },
11688     "di": {
11689         "$ref": "oic.types-schema.json#/definitions/uuid",
11690         "description": "The device ID which is an UUIDv4 string; used for backward
11691 compatibility with Spec A definition of /oic/res"
11692     },
11693     "rts": {
11694         "$ref": "oic.core-schema.json#/definitions/oic.core/properties/rt",
11695         "description": "Defines the list of allowable resource types (for Target and
11696 anchors) in links included in the collection; new links being created can only be from this
11697 list"
11698     },
11699     "drel": {
11700         "type": "string",
11701         "description": "When specified this is the default relationship to use when an
11702 OIC Link does not specify an explicit relationship with *rel* parameter"
11703     },
11704     "links": {
11705         "$ref": "#/definitions/oic.collection.alllinks"
11706     }
11707 }
11708 },
11709     "type": "object",
11710     "allOf": [
11711         {"$ref": "oic.core-schema.json#/definitions/oic.core"},
11712         {"$ref": "#/definitions/oic.collection"}
11713     ]
11714 }
11715

```

## 11716 6.74 Selectable Levels

### 11717 6.74.1 Introduction

11718 This Resource provides a set of device defined 'levels' that can be selected for an operation. For  
11719 example where a humidifier has a discrete set that model different humidity levels that can be set.  
11720 availablelevels is an array of the levels that can be selected, these can be a number or an integer.  
11721 targetlevel is the level that has currently been selected and is written to in order to select a new  
11722 level. When retrieved the targetlevel provides the actual value that has been selected.

### 11723 6.74.2 Example URI

11724 /SelectableLevelsResURI

### 11725 6.74.3 Resource Type

11726 The resource type (rt) is defined as: oic.r.selectablelevels.

### 11727 6.74.4 RAML Definition

```

11728 #%RAML 0.8
11729 title: OICSelectableLevels
11730 version: v1.1.0-20160519
11731 traits:
11732   - interface :
11733       queryParameters:
11734           if:
11735               enum: ["oic.if.a", "oic.if.baseline"]

```

11736



```

11737 /SelectableLevelsResURI:
11738     description: |
11739         This Resource provides a set of device defined 'levels' that can be selected for an operation.
11740         For example where a humidifier has a discrete set that model different humidity levels that can
11741         be set.
11742         availablelevels is an array of the levels that can be selected, these can be a number or an
11743         integer.
11744         targetlevel is the level that has currently been selected and is written to in order to select
11745         a new level.
11746         When retrieved the targetlevel provides the actual value that has been selected.
11747
11748     is : ['interface']
11749
11750     get:
11751         description: |
11752             Retrieves the current selectable levels.
11753
11754     responses :
11755         200:
11756             body:
11757                 application/json:
11758                     schema: /
11759                         {
11760                             "id":
11761                             "http://openinterconnect.org/iotdatamodels/schemas/oic.r.selectablelevels.json#",
11762                             "$schema": "http://json-schema.org/draft-04/schema#",
11763                             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
11764                             rights reserved.",
11765                             "title": "SelectableLevels",
11766                             "definitions": {
11767                                 "oic.r.selectablelevels": {
11768                                     "type": "object",
11769                                     "properties": {
11770                                         "availablelevels": {
11771                                             "type": "array",
11772                                             "description": "Set of levels from which one can be selected",
11773                                             "readOnly": true,
11774                                             "items": {
11775                                                 "anyOf": [
11776                                                     {"type": "integer"},
11777                                                     {"type": "number"}
11778                                                 ]
11779                                             }
11780                                         },
11781                                         "targetlevel": {
11782                                             "anyOf": [
11783                                                 {"type": "integer"},
11784                                                 {"type": "number"}
11785                                             ],
11786                                             "description": "The target level from the available selectable set"
11787                                         }
11788                                     }
11789                                 },
11790                                 "type": "object",
11791                                 "allOf": [
11792                                     {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11793                                     {"$ref": "#/definitions/oic.r.selectablelevels"}
11794                                 ],
11795                                 "required": ["availablelevels", "targetlevel"]
11796                             }
11797
11798     example: /
11799         {
11800             "rt":
11801                 ["oic.r.selectablelevels"],
11802             "id":
11803                 "unique_example_id",

```

```

11802         "availablelevels": [0, 2, 4, 6, 8],
11803         "targetlevel": 2
11804     }
11805
11806 post:
11807     description: |
11808         Sets the current level from the set that is selectable
11809
11810     body:
11811         application/json:
11812             schema: /
11813                 {
11814                     "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.r.selectablelevels.json#",
11815                     "$schema": "http://json-schema.org/draft-04/schema#",
11816                     "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
11817 reserved.",
11818                     "title": "SelectableLevels",
11819                     "definitions": {
11820                         "oic.r.selectablelevels": {
11821                             "type": "object",
11822                             "properties": {
11823                                 "targetlevel": {
11824                                     "type": ["integer", "number"],
11825                                     "description": "The target level from the available selectable set"
11826                                 }
11827                             }
11828                         }
11829                     },
11830                     "type": "object",
11831                     "allOf": [
11832                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11833                         {"$ref": "#/definitions/oic.r.selectablelevels"}
11834                     ],
11835                     "required": ["targetlevel"]
11836                 }
11837
11838             example: /
11839                 {
11840                     "targetlevel": 4
11841                 }
11842
11843     responses:
11844         200:
11845             body:
11846                 application/json:
11847                     schema: /
11848                         {
11849                             "id":
11850 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.selectablelevels.json#",
11851                             "$schema": "http://json-schema.org/draft-04/schema#",
11852                             "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
11853 rights reserved.",
11854                             "title": "SelectableLevels",
11855                             "definitions": {
11856                                 "oic.r.selectablelevels": {
11857                                     "type": "object",
11858                                     "properties": {
11859                                         "targetlevel": {
11860                                             "type": ["integer", "number"],
11861                                             "description": "The target level from the available selectable set"
11862                                         }
11863                                     }
11864                                 }
11865                             },

```

```

11866         "type": "object",
11867         "allOf": [
11868             {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11869             {"$ref": "#/definitions/oic.r.selectablelevels"}
11870         ],
11871         "required": ["targetlevel"]
11872     }
11873
11874     example: /
11875     {
11876         "targetlevel": 4
11877     }
11878
11879     403:
11880         description: |
11881             Generated by a Server when an attempt is made to update to a targetlevel that is not in
11882             the set of availablelevels
11883
11884         body:
11885             application/json:
11886                 schema: /
11887                 {
11888                     "id":
11889 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.selectablelevels.json#",
11890                     "$schema": "http://json-schema.org/draft-04/schema#",
11891                     "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
11892 rights reserved.",
11893                     "title": "SelectableLevels",
11894                     "definitions": {
11895                         "oic.r.selectablelevels": {
11896                             "type": "object",
11897                             "properties": {
11898                                 "availablelevels": {
11899                                     "type": "array",
11900                                     "description": "Set of levels from which one can be selected",
11901                                     "readOnly": true,
11902                                     "items": {
11903                                         "anyOf": [
11904                                             {"type": "integer"},
11905                                             {"type": "number"}
11906                                         ]
11907                                     }
11908                                 },
11909                                 "targetlevel": {
11910                                     "anyOf": [
11911                                         {"type": "integer"},
11912                                         {"type": "number"}
11913                                     ],
11914                                     "description": "The target level from the available selectable set"
11915                                 }
11916                             }
11917                         }
11918                     },
11919                     "type": "object",
11920                     "allOf": [
11921                         {"$ref": "oic.baseResource.json#/definitions/oic.r.baseresource"},
11922                         {"$ref": "#/definitions/oic.r.selectablelevels"}
11923                     ],
11924                     "required": ["availablelevels", "targetlevel"]
11925                 }
11926
11927     example: /
11928     {
11929         "id": "unique_example_id",
11930         "availablelevels": [0,2,4,6,8],
11931         "targetlevel": 2

```

11932 }  
11933

11934 **6.74.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
targetlevel	multiple types: see schema	yes		The target level from the available selectable set
availablelevels	array: see schema	yes	Read Only	Set of levels from which one can be selected

11935 **6.74.6 CRUDN behavior**

Resource	Create	Read	Update	Delete	Notify
/SelectableLevelsResURI		get	post		

11936 **6.75 Value Conditional**

11937 **6.75.1 Introduction**

11938 This resource specifies conditions that can be applied to an observed value in any Resource.  
11939 These conditions are applied by the server exposing the Resource to any generated notifications  
11940 because of subscriptions to the Resource. A unicast RETRIEVE to the Resource will receive the  
11941 most recent value; which may not be the most recent notified value. A server exposes this  
11942 Resource in association with the Resource conveying the observed value. This is done by means  
11943 of a new Resource instance with an RT of ["oic.r.<thing being observed>", "oic.r.value.conditional"],  
11944 e.g ["oic.r.temperature", "oic.r.value.conditional"]. Please see Section 5.7.1 of the published OCF  
11945 Resource Type Specification for more details. The threshold is the amount by which the thing being  
11946 observed must change before a notification is sent. The minnotifyperiod is the minimum time in ms  
11947 (milliseconds) that must elapse before a notification is sent. If the maxnotifyperiod (time in ms  
11948 (milliseconds)) elapses then a notification must be sent. The maxnotifyperiod timer resets each  
11949 time a notification is sent. A value of '0' for any of threshold, minnotifyperiod or maxnotifyperiod  
11950 means that the capability is supported but not active.

11951 **6.75.2 Example URI**

11952 /ValueConditionalResURI

11953 **6.75.3 Resource Type**

11954 The resource type (rt) is defined as: oic.r.value.conditional.

11955 **6.75.4 RAML Definition**

```
11956 #%RAML 0.8
11957 title: OICValueConditional
11958 version: v1.1.0-20161031
11959 traits:
11960   - interface :
11961       queryParameters:
11962         if:
11963           enum: ["oic.if.rw", "oic.if.baseline"]
11964
11965 /ValueConditionalResURI:
11966   description: |
11967     This resource specifies conditions that can be applied to an observed value in any Resource.
11968     These conditions are applied by the server exposing the Resource to any generated notifications
11969     because of subscriptions to the Resource.
11970     A unicast RETRIEVE to the Resource will receive the most recent value; which may not be the
11971     most recent notified value.
11972     A server exposes this Resource in association with the Resource conveying the observed value.
```

```

11973     This is done by means of a new Resource instance with an RT of ["oic.r.<thing being observed>",
11974 "oic.r.value.conditional"], e.g ["oic.r.temperature", "oic.r.value.conditional"]
11975     Please see Section 5.7.1 of the published OCF Resource Type Specification for more details.
11976     The threshold is the amount by which the thing being observed must change before a notification
11977 is sent.
11978     The minnotifyperiod is the minimum time in ms (milliseconds) that must elapse before a
11979 notification is sent.
11980     If the maxnotifyperiod (time in ms (milliseconds)) elapses then a notification must be sent.
11981     The maxnotifyperiod timer resets each time a notification is sent.
11982     A value of '0' for any of threshold, minnotifyperiod or maxnotifyperiod means that the
11983 capability is supported but not active.
11984
11985     is : ['interface']
11986
11987     get:
11988         responses :
11989             200:
11990                 body:
11991                     application/json:
11992                         schema: /
11993                             {
11994                                 "id":
11995 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.value.conditional.json#",
11996                                 "$schema": "http://json-schema.org/draft-04/schema#",
11997                                 "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
11998 reserved.",
11999                                 "title": "Value Conditional",
12000                                 "definitions": {
12001                                     "oic.r.value.conditional": {
12002                                         "type": "object",
12003                                         "anyOf": [
12004                                             {"required": ["threshold"]},
12005                                             {"required": ["minnotifyperiod"]},
12006                                             {"required": ["maxnotifyperiod"]}
12007                                         ],
12008                                         "properties": {
12009                                             "threshold": {
12010                                                 "type": "number",
12011                                                 "minimum": 0,
12012                                                 "description": "Amount by which the measured value must change before a
12013 notification is sent."
12014                                             },
12015                                             "minnotifyperiod": {
12016                                                 "type": "integer",
12017                                                 "minimum": 0,
12018                                                 "description": "Minimum elapsed time in ms before a notification is sent."
12019                                             },
12020                                             "maxnotifyperiod": {
12021                                                 "type": "integer",
12022                                                 "minimum": 0,
12023                                                 "description": "Maximum elapsed time in ms before a notification must be
12024 sent."
12025                                             }
12026                                         }
12027                                     }
12028                                 },
12029                                 "type": "object",
12030                                 "allOf": [
12031                                     {"$ref": "oic.core.json#/definitions/oic.core"},
12032                                     {"$ref": "#/definitions/oic.r.value.conditional"}
12033                                 ]
12034                             }
12035
12036     example: /
12037         {
12038             "rt":          ["oic.r.value.conditional"],
12039             "id":          "unique_example_id",
12040             "threshold":    2,

```

```

12040         "minnotifyperiod": 2000,
12041         "maxnotifyperiod": 5000
12042     }
12043
12044     post:
12045         description: |
12046             body:
12047                 application/json:
12048                     schema: valueconditional
12049                     example: |
12050                         {
12051                             "threshold": 2,
12052                             "minnotifyperiod": 1500
12053                         }
12054
12055     responses :
12056         200:
12057             body:
12058                 application/json:
12059                     schema: /
12060                         {
12061                             "id":
12062 "http://openinterconnect.org/iotdatamodels/schemas/oic.r.value.conditional.json#",
12063                             "$schema": "http://json-schema.org/draft-04/schema#",
12064                             "description" : "Copyright (c) 2017 Open Connectivity Foundation, Inc. All rights
12065 reserved.",
12066                             "title": "Value Conditional",
12067                             "definitions": {
12068                                 "oic.r.value.conditional": {
12069                                     "type": "object",
12070                                     "anyOf": [
12071                                         {"required": ["threshold"]},
12072                                         {"required": ["minnotifyperiod"]},
12073                                         {"required": ["maxnotifyperiod"]}
12074                                     ],
12075                                     "properties": {
12076                                         "threshold": {
12077                                             "type": "number",
12078                                             "minimum": 0,
12079                                             "description": "Amount by which the measured value must change before a
12080 notification is sent."
12081                                         },
12082                                         "minnotifyperiod": {
12083                                             "type": "integer",
12084                                             "minimum": 0,
12085                                             "description": "Minimum elapsed time in ms before a notification is sent."
12086                                         },
12087                                         "maxnotifyperiod": {
12088                                             "type": "integer",
12089                                             "minimum": 0,
12090                                             "description": "Maximum elapsed time in ms before a notification must be
12091 sent."
12092                                         }
12093                                     }
12094                                 }
12095                             },
12096                             "type": "object",
12097                             "allOf": [
12098                                 {"$ref": "oic.core.json#/definitions/oic.core"},
12099                                 {"$ref": "#/definitions/oic.r.value.conditional"}
12100                             ]
12101                         }
12102
12103         example: /
12104             {
12105                 "threshold": 2,

```

12106                   "minnotifyperiod": 1500  
12107                   }  
12108

12109   **6.75.5   Property Definition**

Property name	Value type	Mandatory	Access mode	Description
threshold	number	yes		Amount by which the measured value must change before a notification is sent.
maxnotifyperiod	integer	yes		Maximum elapsed time in ms before a notification must be sent.
minnotifyperiod	integer	yes		Minimum elapsed time in ms before a notification is sent.

12110   **6.75.6   CRUDN behavior**

Resource	Create	Read	Update	Delete	Notify
/ValueConditionalResURI		get	post		

## Annex A Base Resource

### A.1 Base Resource Schema

#### A.1.1 Introduction

This is the base resource schema on which all other resources defined in this specification build. value is the sensed or actuated value of the Resource. precision is the accuracy granularity of the value. range is the range over which value is valid. step is the step function over the defined range if applicable (e.g. always step by '2').

#### A.1.2 Example URI

/BaseResourceSchemaResURI

#### A.1.3 Resource Type

The resource type (rt) is defined as: oic.baseresource.

#### A.1.4 RAML Definition

```
12123 #%RAML 0.8
12124 title: OICBaseResourceSchema
12125 version: v1.1.0-20160519
12126 traits:
12127   - interface-a :
12128     queryParameters:
12129       if:
12130         enum: ["oic.if.a"]
12131   - interface-baseline :
12132     queryParameters:
12133       if:
12134         enum: ["oic.if.baseline"]
12135
12136 /BaseResourceSchemaResURI:
12137   description: |
12138     This is the base resource schema on which all other resources defined in this specification
12139     build.
12140     value is the sensed or actuated value of the Resource.
12141     precision is the accuracy granularity of the value.
12142     range is the range over which value is valid.
12143     step is the step function over the defined range if applicable (e.g
12144     always step by '2').
12145
12146   get:
12147     description: |
12148       retrieves the state of the resource.
12149
12150   is : ['interface-baseline']
12151   responses :
12152     200:
12153       body:
12154         application/json:
12155           schema: /
12156           {
12157             "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.baseResource.json#",
12158             "$schema": "http://json-schema.org/draft-04/schema#",
12159             "description" : "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All
12160             rights reserved.",
12161             "title": "Base Resource",
12162             "definitions": {
```



```

12163         "oic.r.baseresource": {
12164             "type": "object",
12165             "properties": {
12166                 "value": {
12167                     "anyOf": [
12168                         {"type": "array"},
12169                         {"type": "string"},
12170                         {"type": "boolean"},
12171                         {"type": "integer"},
12172                         {"type": "number"},
12173                         {"type": "object"}
12174                     ],
12175                     "description": "The value sensed or actuated by this Resource"
12176                 },
12177                 "precision": {
12178                     "type": "number",
12179                     "readOnly": true,
12180                     "description": "Accuracy granularity of the exposed value"
12181                 },
12182                 "range": {
12183                     "type": "array",
12184                     "description": "The valid range for the value Property",
12185                     "readOnly": true,
12186                     "minItems": 2,
12187                     "maxItems": 2,
12188                     "items": {
12189                         "anyOf": [
12190                             {"type": "number"},
12191                             {"type": "integer"}
12192                         ]
12193                     }
12194                 },
12195                 "step": {
12196                     "description": "Step value across the defined range",
12197                     "readOnly": true,
12198                     "anyOf": [
12199                         {"type": "integer"},
12200                         {"type": "number"}
12201                     ]
12202                 }
12203             }
12204         },
12205         "type": "object",
12206         "allOf": [
12207             {"$ref": "oic.core.json#/definitions/oic.core"},
12208             {"$ref": "#/definitions/oic.r.baseresource"}
12209         ]
12210     }
12211 }
12212

```

```

12213     example: /
12214     {
12215         "rt" :           ["oic.baseresource"],
12216         "if":           ["oic.if.baseline"],
12217         "id":           "unique_example_id",
12218         "value":        10.5,
12219         "precision":    0.5,
12220         "range":        [0.0,100.0]
12221     }
12222

```

```

12223     post:
12224         description: |
12225             sets the read-write resource properties
12226
12227     is : ['interface-a']
12228     body:
12229         application/json:

```

```

12230     schema: /
12231     {
12232         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.baseResource.json#",
12233         "$schema": "http://json-schema.org/draft-04/schema#",
12234         "description": "Copyright (c) 2016 Open Connectivity Foundation, Inc. All rights
12235 reserved.",
12236         "title": "Base Resource",
12237         "definitions": {
12238             "oic.r.baseresource": {
12239                 "type": "object",
12240                 "properties": {
12241                     "value": {
12242                         "anyOf": [
12243                             {"type": "array"},
12244                             {"type": "string"},
12245                             {"type": "boolean"},
12246                             {"type": "integer"},
12247                             {"type": "number"},
12248                             {"type": "object"}
12249                         ],
12250                         "description": "The value sensed or actuated by this Resource"
12251                     },
12252                     "precision": {
12253                         "type": "number",
12254                         "readOnly": true,
12255                         "description": "Accuracy granularity of the exposed value"
12256                     },
12257                     "range": {
12258                         "type": "array",
12259                         "description": "The valid range for the value Property",
12260                         "readOnly": true,
12261                         "minItems": 2,
12262                         "maxItems": 2,
12263                         "items": {
12264                             "anyOf": [
12265                                 {"type": "number"},
12266                                 {"type": "integer"}
12267                             ]
12268                         }
12269                     },
12270                     "step": {
12271                         "description": "Step value across the defined range",
12272                         "readOnly": true,
12273                         "anyOf": [
12274                             {"type": "integer"},
12275                             {"type": "number"}
12276                         ]
12277                     }
12278                 }
12279             }
12280         },
12281         "type": "object",
12282         "allOf": [
12283             {"$ref": "oic.core.json#/definitions/oic.core"},
12284             {"$ref": "#/definitions/oic.r.baseresource"}
12285         ]
12286     }
12287
12288     example: /
12289     {
12290         "value": 20.5
12291     }
12292
12293     responses :
12294     200:
12295         body:
12296             application/json:

```

```

12297     schema: /
12298     {
12299         "id": "http://openinterconnect.org/iotdatamodels/schemas/oic.baseResource.json#",
12300         "$schema": "http://json-schema.org/draft-04/schema#",
12301         "description" : "Copyright (c) 2016 Open Connectivity Foundation, Inc. All rights
12302 reserved.",
12303         "title": "Base Resource",
12304         "definitions": {
12305             "oic.r.baseresource": {
12306                 "type": "object",
12307                 "properties": {
12308                     "value": {
12309                         "anyOf": [
12310                             {"type": "array"},
12311                             {"type": "string"},
12312                             {"type": "boolean"},
12313                             {"type": "integer"},
12314                             {"type": "number"},
12315                             {"type": "object"}
12316                         ],
12317                         "description": "The value sensed or actuated by this Resource"
12318                     },
12319                     "precision": {
12320                         "type": "number",
12321                         "readOnly": true,
12322                         "description": "Accuracy granularity of the exposed value"
12323                     },
12324                     "range": {
12325                         "type": "array",
12326                         "description": "The valid range for the value Property",
12327                         "readOnly": true,
12328                         "minItems": 2,
12329                         "maxItems": 2,
12330                         "items": {
12331                             "anyOf": [
12332                                 {"type": "number"},
12333                                 {"type": "integer"}
12334                             ]
12335                         }
12336                     },
12337                     "step": {
12338                         "description": "Step value across the defined range",
12339                         "readOnly": true,
12340                         "anyOf": [
12341                             {"type": "integer"},
12342                             {"type": "number"}
12343                         ]
12344                     }
12345                 }
12346             }
12347         },
12348         "type": "object",
12349         "allOf": [
12350             {"$ref": "oic.core.json#/definitions/oic.core"},
12351             {"$ref": "#/definitions/oic.r.baseresource"}
12352         ]
12353     }
12354
12355     example: /
12356     {
12357         "value": 20.5
12358     }
12359

```

### A.1.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource

#### 12361 A.1.6 CRUDN behavior

Resource	Create	Read	Update	Delete	Notify
/BaseResourceSchemaResURI		get	post		

#### 12362 A.1.7 Referenced JSON schemas

#### 12363 A.1.8 oic.core.json

```

12364 {
12365   "id": "http://www.openconnectivity.org/ocf-apis/core/schemas/oic.core-schema.json#",
12366   "$schema": "http://json-schema.org/draft-04/schema#",
12367   "description": "Copyright (c) 2016, 2017 Open Connectivity Foundation, Inc. All rights
12368 reserved.",
12369   "title": "Core",
12370   "definitions": {
12371     "oic.core": {
12372       "type": "object",
12373       "properties": {
12374         "rt": {
12375           "type": "array",
12376           "items": {
12377             "type": "string",
12378             "maxLength": 64
12379           },
12380           "minItems": 1,
12381           "readOnly": true,
12382           "description": "Resource Type"
12383         },
12384         "if": {
12385           "type": "array",
12386           "items": {
12387             "type": "string",
12388             "enum": ["oic.if.baseline", "oic.if.ll", "oic.if.b", "oic.if.lb", "oic.if.rw",
12389 "oic.if.r", "oic.if.a", "oic.if.s" ]
12390           },
12391           "minItems": 1,
12392           "readOnly": true,
12393           "description": "The interface set supported by this resource"
12394         },
12395         "n": {

```

```

12396         "type": "string",
12397         "maxLength": 64,
12398         "readOnly": true,
12399         "description": "Friendly name of the resource"
12400     },
12401     "id": {
12402         "type": "string",
12403         "maxLength": 64,
12404         "readOnly": true,
12405         "description": "Instance ID of this specific resource"
12406     }
12407 },
12408 },
12409 },
12410 "type": "object",
12411 "allOf": [
12412     { "$ref": "#/definitions/oic.core" }
12413 ]
12414 }
12415
12416

```

## Annex B Swagger 2.0

### B.1 Acceleration Sensor

#### B.1.1 Introduction

This resource provides a measure of proper acceleration (g force) as opposed to co-ordinate acceleration (which is dependent on the co-ordinate system and the observer). The value is a float which describes the acceleration experienced by the object in "g".

#### B.1.2 Example URI

/AccelerationResURI

#### B.1.3 Resource Type

The resource type (rt) is defined as: ['oic.r.sensor.acceleration'].

#### B.1.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Acceleration Sensor",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/AccelerationResURI" : {
      "get": {
        "description": "This resource provides a measure of proper acceleration (g force) as
opposed to co-ordinate acceleration\n(which is dependent on the co-ordinate system and the
observer).\nThe value is a float which describes the acceleration experienced by the object in
\"g\".\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.sensor.acceleration"],
              "id": "unique_example_id",
              "acceleration": 0.5
            }
          },
          "schema": { "$ref": "#/definitions/acceleration" }
        }
      }
    }
  }
}
```

```

12478     }
12479   }
12480 }
12481 }
12482 },
12483 "parameters": {
12484   "interface" : {
12485     "in" : "query",
12486     "name" : "if",
12487     "type" : "string",
12488     "enum" : ["oic.if.s", "oic.if.baseline"]
12489   }
12490 },
12491 "definitions": {
12492   "acceleration" :
12493     {
12494     "properties": {
12495       "acceleration": {
12496         "description": "sensed acceleration experienced in 'g'.",
12497         "readOnly": true,
12498         "type": "number"
12499       },
12500       "id": {
12501         "description": "Instance ID of this specific resource",
12502         "maxLength": 64,
12503         "readOnly": true,
12504         "type": "string"
12505       },
12506       "if": {
12507         "description": "The interface set supported by this resource",
12508         "items": {
12509           "enum": [
12510             "oic.if.baseline",
12511             "oic.if.ll",
12512             "oic.if.b",
12513             "oic.if.lb",
12514             "oic.if.rw",
12515             "oic.if.r",
12516             "oic.if.a",
12517             "oic.if.s"
12518           ],
12519           "type": "string"
12520         },
12521         "minItems": 1,
12522         "readOnly": true,
12523         "type": "array"
12524       },
12525       "n": {
12526         "description": "Friendly name of the resource",
12527         "maxLength": 64,
12528         "readOnly": true,
12529         "type": "string"
12530       },
12531       "precision": {
12532         "description": "Accuracy granularity of the exposed value",
12533         "readOnly": true,
12534         "type": "number"
12535       },
12536       "range": {
12537         "description": "The valid range for the value Property",
12538         "items": {
12539           "anyOf": [
12540             {
12541               "type": "number"
12542             },
12543             {
12544               "type": "integer"
12545             }
12546           ]
12547         },
12548         "maxItems": 2,

```

```

12549         "minItems": 2,
12550         "readOnly": true,
12551         "type": "array"
12552     },
12553     "rt": {
12554         "description": "Resource Type",
12555         "items": {
12556             "maxLength": 64,
12557             "type": "string"
12558         },
12559         "minItems": 1,
12560         "readOnly": true,
12561         "type": "array"
12562     },
12563     "step": {
12564         "anyOf": [
12565             {
12566                 "type": "integer"
12567             },
12568             {
12569                 "type": "number"
12570             }
12571         ],
12572         "description": "Step value across the defined range",
12573         "readOnly": true
12574     },
12575     "value": {
12576         "anyOf": [
12577             {
12578                 "type": "array"
12579             },
12580             {
12581                 "type": "string"
12582             },
12583             {
12584                 "type": "boolean"
12585             },
12586             {
12587                 "type": "integer"
12588             },
12589             {
12590                 "type": "number"
12591             },
12592             {
12593                 "type": "object"
12594             }
12595         ],
12596         "description": "The value sensed or actuated by this Resource"
12597     },
12598 ],
12599 "required": [
12600     "acceleration"
12601 ]
12602 }
12603 }
12604 }
12605 }
12606

```

### B.1.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource



rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property
acceleration	number	yes	Read Only	sensed acceleration experienced in 'g'.
n	string		Read Only	Friendly name of the resource

#### 12608 B.1.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AccelerationResURI		get			

### 12609 B.2 Activity Count

#### 12610 B.2.1 Introduction

12611 This resource specifies an activity count.  
12612 The resource can be readonly (oic.if.s interface) in which instance it represents a count.  
12613 The resource can be readwrite (oic.if.a interface) in which instance it represents a goal or target  
12614 for a count.  
12615 The count property is an integer representing either the current count or goal value.  
12616 Retrieves the current activity count.  
12617

#### 12618 B.2.2 Example URI

12619 /ActivityCountResURI

#### 12620 B.2.3 Resource Type

12621 The resource type (rt) is defined as: ['oic.r.sensor.activity.count'].

#### 12622 B.2.4 Swagger2.0 Definition

```
12623 {
12624   "swagger": "2.0",
12625   "info": {
12626     "title": "Activity Count",
12627     "version": "v1.1.0-20160519",
12628     "license": {
12629       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
12630       "x-description": "Redistribution and use in source and binary forms, with or without
12631 modification, are permitted provided that the following conditions are met:\n
12632 1.
12633 Redistributions of source code must retain the above copyright notice, this list of conditions and
12634 the following disclaimer.\n
12635 2. Redistributions in binary form must reproduce the above
12636 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
12637 other materials provided with the distribution.\n\n
THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
```

```

12638 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n          IN NO EVENT SHALL THE Open Connectivity
12639 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
12640 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
12641 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
12642 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
12643 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
12644 OF SUCH DAMAGE.\n"
12645 }
12646 },
12647 "schemes": ["http"],
12648 "consumes": ["application/json"],
12649 "produces": ["application/json"],
12650 "paths": {
12651   "/ActivityCountResURI" : {
12652     "get": {
12653       "description": "This resource specifies an activity count.\nThe resource can be readonly
12654 (oic.if.s interface) in which instance it represents a count.\nThe resource can be readwrite
12655 (oic.if.a interface) in which instance it represents a goal or target for a count.\nThe count
12656 property is an integer representing either the current count or goal value.\nRetrieves the current
12657 activity count.\n",
12658       "parameters": [
12659         {"$ref": "#/parameters/interface"}
12660       ],
12661       "responses": {
12662         "200": {
12663           "description": "",
12664           "x-example":
12665             {
12666               "rt": ["oic.r.sensor.activity.count"],
12667               "id": "unique_example_id",
12668               "count": 2500
12669             },
12670           "schema": { "$ref": "#/definitions/Count" }
12671         }
12672       }
12673     },
12674     "post": {
12675       "description": "Sets the count target\n",
12676       "parameters": [
12677         {"$ref": "#/parameters/interface"},
12678         {
12679           "name": "body",
12680           "in": "body",
12681           "required": true,
12682           "schema": { "$ref": "#/definitions/Count" },
12683           "x-example":
12684             {
12685               "id": "unique_example_id",
12686               "count": 5000
12687             }
12688         }
12689       ],
12690       "responses": {
12691         "200": {
12692           "description": "",
12693           "x-example":
12694             {
12695               "id": "unique_example_id",
12696               "count": 5000
12697             },
12698           "schema": { "$ref": "#/definitions/Count" }
12699         }
12700       }
12701     }
12702   }
12703 },
12704 },
12705 },
12706 "parameters": {
12707   "interface" : {
12708     "in" : "query",

```

```

12709     "name" : "if",
12710     "type" : "string",
12711     "enum" : ["oic.if.s", "oic.if.a", "oic.if.baseline"]
12712 }
12713 },
12714 "definitions": {
12715     "Count" :
12716     {
12717         "properties": {
12718             "count": {
12719                 "description": "Current or Target count.",
12720                 "type": "integer"
12721             },
12722             "id": {
12723                 "description": "Instance ID of this specific resource",
12724                 "maxLength": 64,
12725                 "readOnly": true,
12726                 "type": "string"
12727             },
12728             "if": {
12729                 "description": "The interface set supported by this resource",
12730                 "items": {
12731                     "enum": [
12732                         "oic.if.baseline",
12733                         "oic.if.ll",
12734                         "oic.if.b",
12735                         "oic.if.lb",
12736                         "oic.if.rw",
12737                         "oic.if.r",
12738                         "oic.if.a",
12739                         "oic.if.s"
12740                     ],
12741                     "type": "string"
12742                 },
12743                 "minItems": 1,
12744                 "readOnly": true,
12745                 "type": "array"
12746             },
12747             "n": {
12748                 "description": "Friendly name of the resource",
12749                 "maxLength": 64,
12750                 "readOnly": true,
12751                 "type": "string"
12752             },
12753             "precision": {
12754                 "description": "Accuracy granularity of the exposed value",
12755                 "readOnly": true,
12756                 "type": "number"
12757             },
12758             "range": {
12759                 "description": "The valid range for the value Property",
12760                 "items": {
12761                     "anyOf": [
12762                         {
12763                             "type": "number"
12764                         },
12765                         {
12766                             "type": "integer"
12767                         }
12768                     ]
12769                 },
12770                 "maxItems": 2,
12771                 "minItems": 2,
12772                 "readOnly": true,
12773                 "type": "array"
12774             },
12775             "rt": {
12776                 "description": "Resource Type",
12777                 "items": {
12778                     "maxLength": 64,
12779                     "type": "string"

```

```

12780         },
12781         "minItems": 1,
12782         "readOnly": true,
12783         "type": "array"
12784     },
12785     "step": {
12786         "anyOf": [
12787             {
12788                 "type": "integer"
12789             },
12790             {
12791                 "type": "number"
12792             }
12793         ],
12794         "description": "Step value across the defined range",
12795         "readOnly": true
12796     },
12797     "value": {
12798         "anyOf": [
12799             {
12800                 "type": "array"
12801             },
12802             {
12803                 "type": "string"
12804             },
12805             {
12806                 "type": "boolean"
12807             },
12808             {
12809                 "type": "integer"
12810             },
12811             {
12812                 "type": "number"
12813             },
12814             {
12815                 "type": "object"
12816             }
12817         ],
12818         "description": "The value sensed or actuated by this Resource"
12819     }
12820 },
12821 "required": [
12822     "count"
12823 ]
12824 }
12825
12826 }
12827 }
12828

```

## B.2.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
count	integer	yes		Current or Target count.
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource
id	string		Read Only	Instance ID of this specific resource

range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type

## B.2.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ActivityCountResURI		get	post		

## B.3 Air Flow

### B.3.1 Introduction

This resource describes the properties associated with air flow. The supporteddirections is the set of valid values for the direction property for a particular instance of this resource type. The direction is the directionality of the air flow if applicable, if supporteddirections is also present it must be a value from that set. Direction values are dependent on the capabilities of the unit. The speed is an integer representing the current speed level for the unit. The range (from oic.r.baseresource) is an array of the min,max values for the speed level. If not present the range defaults to [0,100]. automode is the status of the automode feature; Off means automode is not enabled, On means automode is active and the speed is automatically controlled by the device. Retrieves the current air flow values.

### B.3.2 Example URI

/AirFlowResURI

### B.3.3 Resource Type

The resource type (rt) is defined as: ['oic.r.airflow'].

### B.3.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Air Flow",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n
1. Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n
2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n
THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n
IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n
HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
```

```

12871 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
12872 OF SUCH DAMAGE.\n"
12873     },
12874   },
12875   "schemes": ["http"],
12876   "consumes": ["application/json"],
12877   "produces": ["application/json"],
12878   "paths": {
12879     "/AirFlowResURI" : {
12880       "get": {
12881         "description": "This resource describes the properties associated with air flow.\nThe
12882 supportedirections is the set of valid values for the direction property for a particular instance
12883 of this resource type.\nThe direction is the directionality of the air flow if applicable, if
12884 supportedirections is also present it must be a value from that set.\nDirection values are
12885 dependent on the capabilities of the unit.\nThe speed is an integer representing the current speed
12886 level for the unit.\nThe range (from oic.r.baseresource) is an array of the min,max values for the
12887 speed level. If not present the range defaults to [0,100].\nautomode is the status of the automode
12888 feature; Off means automode is not enabled, On means automode is active and the speed is
12889 automatically controlled by the device.\nRetrieves the current air flow values.\n",
12890         "parameters": [
12891           { "$ref": "#/parameters/interface" }
12892         ],
12893         "responses": {
12894           "200": {
12895             "description": "",
12896             "x-example": {
12897               "rt": ["oic.r.airflow"],
12898               "id": "unique_example_id",
12899               "supportedirections": ["left", "right", "centre"],
12900               "direction": "left",
12901               "speed": 5,
12902               "range": [1,7],
12903               "automode": "Off"
12904             },
12905             "schema": { "$ref": "#/definitions/AirFlow" }
12906           },
12907           "post": {
12908             "description": "Sets the current air flow values.\nOnly direction and speed may be set by
12909 an update operation.\n",
12910             "parameters": [
12911               { "$ref": "#/parameters/interface" },
12912               {
12913                 "name": "body",
12914                 "in": "body",
12915                 "required": true,
12916                 "schema": { "$ref": "#/definitions/AirFlow" },
12917                 "x-example": {
12918                   "id": "unique_example_id",
12919                   "direction": "right",
12920                   "speed": 3
12921                 }
12922               }
12923             ],
12924             "responses": {
12925               "200": {
12926                 "description": "",
12927                 "x-example": {
12928                   "id": "unique_example_id",
12929                   "direction": "right",
12930                   "speed": 3
12931                 },
12932                 "schema": { "$ref": "#/definitions/AirFlow" }
12933               },
12934               "403": {

```

```

12942         "description" : "This response is generated by the OCF Server when the client
12943 sends:\n An update with an invalid property value for direction.\n An update with an out of range
12944 property value for speed.\nThe server may respond with the current resource representation.\n",
12945         "x-example":
12946         {
12947             "id": "unique_example_id",
12948             "supporteddirections": ["left","right","centre"],
12949             "direction": "right",
12950             "speed": 3
12951         }
12952     },
12953     "schema": { "$ref": "#/definitions/AirFlow" }
12954 }
12955 }
12956 }
12957 }
12958 },
12959 "parameters": {
12960     "interface" : {
12961         "in" : "query",
12962         "name" : "if",
12963         "type" : "string",
12964         "enum" : ["oic.if.a", "oic.if.baseline"]
12965     }
12966 },
12967 "definitions": {
12968     "AirFlow" :
12969     {
12970         "properties": {
12971             "automode": {
12972                 "description": "Status of the automode feature, if on speed is set by the device",
12973                 "enum": [
12974                     "On",
12975                     "Off"
12976                 ]
12977             },
12978             "direction": {
12979                 "description": "Directionality of the air flow",
12980                 "type": "string"
12981             },
12982             "id": {
12983                 "description": "Instance ID of this specific resource",
12984                 "maxLength": 64,
12985                 "readOnly": true,
12986                 "type": "string"
12987             },
12988             "if": {
12989                 "description": "The interface set supported by this resource",
12990                 "items": {
12991                     "enum": [
12992                         "oic.if.baseline",
12993                         "oic.if.ll",
12994                         "oic.if.b",
12995                         "oic.if.lb",
12996                         "oic.if.rw",
12997                         "oic.if.r",
12998                         "oic.if.a",
12999                         "oic.if.s"
13000                     ],
13001                     "type": "string"
13002                 },
13003                 "minItems": 1,
13004                 "readOnly": true,
13005                 "type": "array"
13006             },
13007             "n": {
13008                 "description": "Friendly name of the resource",
13009                 "maxLength": 64,
13010                 "readOnly": true,
13011                 "type": "string"
13012             }

```

```

13013     "precision": {
13014         "description": "Accuracy granularity of the exposed value",
13015         "readOnly": true,
13016         "type": "number"
13017     },
13018     "range": {
13019         "description": "The valid range for the value Property",
13020         "items": {
13021             "anyOf": [
13022                 {
13023                     "type": "number"
13024                 },
13025                 {
13026                     "type": "integer"
13027                 }
13028             ]
13029         },
13030         "maxItems": 2,
13031         "minItems": 2,
13032         "readOnly": true,
13033         "type": "array"
13034     },
13035     "rt": {
13036         "description": "Resource Type",
13037         "items": {
13038             "maxLength": 64,
13039             "type": "string"
13040         },
13041         "minItems": 1,
13042         "readOnly": true,
13043         "type": "array"
13044     },
13045     "speed": {
13046         "description": "Current speed level",
13047         "type": "integer"
13048     },
13049     "step": {
13050         "anyOf": [
13051             {
13052                 "type": "integer"
13053             },
13054             {
13055                 "type": "number"
13056             }
13057         ],
13058         "description": "Step value across the defined range",
13059         "readOnly": true
13060     },
13061     "supporteddirections": {
13062         "description": "Array of possible direction settings for this instance of the Resource
13063 Type",
13064         "items": {
13065             "minItems": 1,
13066             "type": "string",
13067             "uniqueItems": true
13068         },
13069         "readOnly": true,
13070         "type": "array"
13071     },
13072     "value": {
13073         "anyOf": [
13074             {
13075                 "type": "array"
13076             },
13077             {
13078                 "type": "string"
13079             },
13080             {
13081                 "type": "boolean"
13082             },
13083             {

```



```

13084         "type": "integer"
13085     },
13086     {
13087         "type": "number"
13088     },
13089     {
13090         "type": "object"
13091     }
13092 ],
13093 "description": "The value sensed or actuated by this Resource"
13094 },
13095 },
13096 "required": [
13097     "speed"
13098 ],
13099 "type": "object"
13100 }
13101 }
13102 }
13103 }
13104

```

### 13105 B.3.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
precision	number		Read Only	Accuracy granularity of the exposed value
automode	multiple types: see schema			Status of the automode feature, if on speed is set by the device
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
direction	string			Directionality of the air flow
n	string		Read Only	Friendly name of the resource
supporteddirections	array: see schema		Read Only	Array of possible direction settings for this instance of the Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
speed	integer	yes		Current speed level
value	multiple types: see schema			The value sensed or actuated by this Resource
id	string		Read Only	Instance ID of this specific resource

range	array: see schema		Read Only	The valid range for the value Property
-------	-------------------	--	-----------	--

### B.3.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AirFlowResURI		get	post		

## B.4 Air Flow Control

### B.4.1 Introduction

This resource describes the attributes associated with control of air flow, for example as modelled by a Thermostat (fan), Room A/C or other device. The resource is a composite resource being made up as a collection of: AirFlow Resource BinarySwitch Resource. Retrieves the current air flow control values.

### B.4.2 Example URI

/AirFlowControlResURI

### B.4.3 Resource Type

The resource type (rt) is defined as: ['oic.r.airflowcontrol'].

### B.4.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Air Flow Control",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/AirFlowControlResURI": {
      "get": {
        "description": "This resource describes the attributes associated with control of air
flow,\nfor example as modelled by a Thermostat (fan), Room A/C or other device.\nThe resource is a
composite resource being made up as a collection of:\n AirFlow Resource\n BinarySwitch
Resource\nRetrieves the current air flow control values.\n",
        "parameters": [
          {
            "$ref": "#/parameters/interface-all"
          }
        ],
        "responses": {
```

```

13159     "200": {
13160         "description" : "",
13161         "x-example":
13162             {
13163                 "rt": ["oic.r.airflowcontrol"],
13164                 "id": "unique_example_id",
13165                 "airFlowControl": [
13166                     {
13167                         "href": "/BinarySwitchResURI",
13168                         "rel": "contains",
13169                         "rt": ["oic.r.switch.binary"],
13170                         "if": ["oic.if.a"],
13171                         "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
13172                     },
13173                     {
13174                         "href": "/AirFlowResURI",
13175                         "rel": "contains",
13176                         "rt": ["oic.r.airflow"],
13177                         "if": ["oic.if.a"],
13178                         "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
13179                     }
13180                 ]
13181             }
13182         ,
13183         "schema": { "$ref": "#/definitions/AirFlowControl" }
13184     }
13185 },
13186 "post": {
13187     "description": "Sets the current air flow control values using the batch interface\n",
13188     "parameters": [
13189         { "$ref": "#/parameters/interface-b" },
13190         {
13191             "name": "body",
13192             "in": "body",
13193             "required": true,
13194             "schema": { "$ref": "#/definitions/AirFlowControlBatch" },
13195             "x-example":
13196                 {
13197                     "id": "unique_example_id",
13198                     "airFlowControl": [
13199                         {
13200                             "id": "unique_example_id",
13201                             "value": true
13202                         },
13203                         {
13204                             "id": "unique_example_id",
13205                             "direction": "right",
13206                             "speed": 3
13207                         }
13208                     ]
13209                 }
13210         ]
13211     },
13212     "responses": {
13213         "200": {
13214             "description" : "",
13215             "x-example":
13216                 {
13217                     "id": "unique_example_id",
13218                     "airFlowControl": [
13219                         {
13220                             "id": "unique_example_id",
13221                             "value": true
13222                         },
13223                         {
13224                             "id": "unique_example_id",
13225                             "direction": "right",
13226                             "speed": 3
13227                         }
13228                     ]
13229                 }
13230         }
13231     }
13232 }

```

```

13230         }
13231     },
13232     "schema": { "$ref": "#/definitions/AirFlowControlBatch" }
13233 },
13234 "403": {
13235     "description": "This response is generated by the OIC Server when the client
13236 sends:\n An update with an invalid property value for direction.\n An update with an out of range
13237 property value for speed.\nThe server responds with the current resource representation.\n",
13238     "x-example":
13239     {
13240         "id": "unique_example_id",
13241         "airFlowControl": [
13242             {
13243                 "id": "unique_example_id",
13244                 "value": true
13245             },
13246             {
13247                 "id": "unique_example_id",
13248                 "direction": "right",
13249                 "speed": 3
13250             }
13251         ]
13252     }
13253 },
13254 "schema": { "$ref": "#/definitions/AirFlowControlBatch" }
13255 }
13256 }
13257 }
13258 },
13259 },
13260 "parameters": {
13261     "interface-b" : {
13262         "in" : "query",
13263         "name" : "if",
13264         "type" : "string",
13265         "enum" : ["oic.if.b"]
13266     },
13267     "interface-all" : {
13268         "in" : "query",
13269         "name" : "if",
13270         "type" : "string",
13271         "enum" : ["oic.if.ll", "oic.if.b", "oic.if.baseline"]
13272     }
13273 },
13274 "definitions": {
13275     "AirFlowControl" :
13276     {
13277         "properties": {
13278             "airFlowControl": {
13279                 "items": {
13280                     "properties": {
13281                         "anchor": {
13282                             "description": "This is used to override the context URI e.g. override the URI of
13283 the containing collection",
13284                             "format": "uri",
13285                             "maxLength": 256,
13286                             "type": "string"
13287                         },
13288                         "di": {
13289                             "description": "Unique identifier for device (UUID)",
13290                             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-
13291 F0-9]{12}$",
13292                             "type": "string"
13293                         },
13294                         "eps": {
13295                             "description": "the Endpoint information of the target Resource",
13296                             "items": {
13297                                 "properties": {
13298                                     "ep": {
13299                                         "description": "URI with Transport Protocol Suites + Endpoint Locator as
13300 specified in 10.2.1",

```

```

13301         "format": "uri",
13302         "type": "string"
13303     },
13304     "pri": {
13305         "description": "The priority among multiple Endpoints as specified in
13306 10.2.3",
13307         "minimum": 1,
13308         "type": "integer"
13309     }
13310 },
13311 "type": "object"
13312 },
13313 "type": "array"
13314 },
13315 "href": {
13316     "description": "This is the target URI, it can be specified as a Relative
13317 Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to
13318 make it unique.",
13319     "format": "uri",
13320     "maxLength": 256,
13321     "type": "string"
13322 },
13323 "if": {
13324     "description": "The interface set supported by this resource",
13325     "items": {
13326         "enum": [
13327             "oic.if.baseline",
13328             "oic.if.ll",
13329             "oic.if.b",
13330             "oic.if.rw",
13331             "oic.if.r",
13332             "oic.if.a",
13333             "oic.if.s"
13334         ],
13335         "type": "string"
13336     },
13337     "minItems": 1,
13338     "type": "array"
13339 },
13340 "ins": {
13341     "description": "The instance identifier for this web link in an array of web
13342 links - used in collections",
13343     "oneOf": [
13344         {
13345             "description": "An ordinal number that is not repeated - must be unique in
13346 the collection context",
13347             "type": "integer"
13348         },
13349         {
13350             "description": "Any unique string including a URI",
13351             "format": "uri",
13352             "maxLength": 256,
13353             "type": "string"
13354         },
13355         {
13356             "description": "Unique identifier (UUID)",
13357             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-
13358 fA-F0-9]{12}$",
13359             "type": "string"
13360         }
13361     ]
13362 },
13363 "p": {
13364     "description": "Specifies the framework policies on the Resource referenced by
13365 the target URI",
13366     "properties": {
13367         "bm": {
13368             "description": "Specifies the framework policies on the Resource referenced
13369 by the target URI for e.g. observable and discoverable",
13370             "type": "integer"
13371         }
13372     }

```

```

13372         },
13373         "required": [
13374             "bm"
13375         ],
13376         "type": "object"
13377     },
13378     "rel": {
13379         "description": "The relation of the target URI referenced by the link to the
13380 context URI",
13381         "oneOf": [
13382             {
13383                 "default": [
13384                     "hosts"
13385                 ],
13386                 "items": {
13387                     "maxLength": 64,
13388                     "type": "string"
13389                 },
13390                 "minItems": 1,
13391                 "type": "array"
13392             },
13393             {
13394                 "default": "hosts",
13395                 "maxLength": 64,
13396                 "type": "string"
13397             }
13398         ]
13399     },
13400     "rt": {
13401         "description": "Resource Type",
13402         "items": {
13403             "maxLength": 64,
13404             "type": "string"
13405         },
13406         "minItems": 1,
13407         "type": "array"
13408     },
13409     "title": {
13410         "description": "A title for the link relation. Can be used by the UI to provide a
13411 context",
13412         "maxLength": 64,
13413         "type": "string"
13414     },
13415     "type": {
13416         "default": "application/cbor",
13417         "description": "A hint at the representation of the resource referenced by the
13418 target URI. This represents the media types that are used for both accepting and emitting",
13419         "items": {
13420             "maxLength": 64,
13421             "type": "string"
13422         },
13423         "minItems": 1,
13424         "type": "array"
13425     }
13426 },
13427 "required": [
13428     "href",
13429     "rt",
13430     "if"
13431 ],
13432 "type": "object"
13433 },
13434 "maxItems": 2,
13435 "minItems": 2,
13436 "type": "array"
13437 },
13438 "id": {
13439     "description": "Instance ID of this specific resource",
13440     "maxLength": 64,
13441     "readOnly": true,
13442     "type": "string"

```

```

13443 },
13444 "if": {
13445     "description": "The interface set supported by this resource",
13446     "items": {
13447         "enum": [
13448             "oic.if.baseline",
13449             "oic.if.ll",
13450             "oic.if.b",
13451             "oic.if.lb",
13452             "oic.if.rw",
13453             "oic.if.r",
13454             "oic.if.a",
13455             "oic.if.s"
13456         ],
13457         "type": "string"
13458     },
13459     "minItems": 1,
13460     "readOnly": true,
13461     "type": "array"
13462 },
13463 "n": {
13464     "description": "Friendly name of the resource",
13465     "maxLength": 64,
13466     "readOnly": true,
13467     "type": "string"
13468 },
13469 "precision": {
13470     "description": "Accuracy granularity of the exposed value",
13471     "readOnly": true,
13472     "type": "number"
13473 },
13474 "range": {
13475     "description": "The valid range for the value Property",
13476     "items": {
13477         "anyOf": [
13478             {
13479                 "type": "number"
13480             },
13481             {
13482                 "type": "integer"
13483             }
13484         ]
13485     },
13486     "maxItems": 2,
13487     "minItems": 2,
13488     "readOnly": true,
13489     "type": "array"
13490 },
13491 "rt": {
13492     "description": "Resource Type",
13493     "items": {
13494         "maxLength": 64,
13495         "type": "string"
13496     },
13497     "minItems": 1,
13498     "readOnly": true,
13499     "type": "array"
13500 },
13501 "step": {
13502     "anyOf": [
13503         {
13504             "type": "integer"
13505         },
13506         {
13507             "type": "number"
13508         }
13509     ],
13510     "description": "Step value across the defined range",
13511     "readOnly": true
13512 },
13513 "value": {

```

```

13514         "anyOf": [
13515             {
13516                 "type": "array"
13517             },
13518             {
13519                 "type": "string"
13520             },
13521             {
13522                 "type": "boolean"
13523             },
13524             {
13525                 "type": "integer"
13526             },
13527             {
13528                 "type": "number"
13529             },
13530             {
13531                 "type": "object"
13532             }
13533         ],
13534         "description": "The value sensed or actuated by this Resource"
13535     },
13536 },
13537 "type": "object"
13538 }
13539
13540 ,
13541 "AirFlowControlBatch" :
13542 {
13543     "properties": {
13544         "airFlowControl": {
13545             "items": {
13546                 "anyOf": [
13547                     {
13548                         "properties": {
13549                             "value": {
13550                                 "description": "Status of the switch",
13551                                 "type": "boolean"
13552                             }
13553                         },
13554                         "type": "object"
13555                     },
13556                     {
13557                         "properties": {
13558                             "automode": {
13559                                 "description": "Status of the automode feature, if on speed is set by the
13560 device",
13561                                 "enum": [
13562                                     "On",
13563                                     "Off"
13564                                 ]
13565                             },
13566                             "direction": {
13567                                 "description": "Directionality of the air flow",
13568                                 "type": "string"
13569                             },
13570                             "speed": {
13571                                 "description": "Current speed level",
13572                                 "type": "integer"
13573                             },
13574                             "supporteddirections": {
13575                                 "description": "Array of possible direction settings for this instance of the
13576 Resource Type",
13577                                 "items": {
13578                                     "minItems": 1,
13579                                     "type": "string",
13580                                     "uniqueItems": true
13581                                 },
13582                                 "readOnly": true,
13583                                 "type": "array"
13584                             }
13585                         }
13586                     }
13587                 ]
13588             }
13589         }
13590     }
13591 }

```



```

13585         },
13586         "type": "object"
13587     }
13588 ]
13589 },
13590 "type": "array"
13591 },
13592 "id": {
13593     "description": "Instance ID of this specific resource",
13594     "maxLength": 64,
13595     "readOnly": true,
13596     "type": "string"
13597 },
13598 "if": {
13599     "description": "The interface set supported by this resource",
13600     "items": {
13601         "enum": [
13602             "oic.if.baseline",
13603             "oic.if.ll",
13604             "oic.if.b",
13605             "oic.if.lb",
13606             "oic.if.rw",
13607             "oic.if.r",
13608             "oic.if.a",
13609             "oic.if.s"
13610         ],
13611         "type": "string"
13612     },
13613     "minItems": 1,
13614     "readOnly": true,
13615     "type": "array"
13616 },
13617 "n": {
13618     "description": "Friendly name of the resource",
13619     "maxLength": 64,
13620     "readOnly": true,
13621     "type": "string"
13622 },
13623 "precision": {
13624     "description": "Accuracy granularity of the exposed value",
13625     "readOnly": true,
13626     "type": "number"
13627 },
13628 "range": {
13629     "description": "The valid range for the value Property",
13630     "items": {
13631         "anyOf": [
13632             {
13633                 "type": "number"
13634             },
13635             {
13636                 "type": "integer"
13637             }
13638         ]
13639     },
13640     "maxItems": 2,
13641     "minItems": 2,
13642     "readOnly": true,
13643     "type": "array"
13644 },
13645 "rt": {
13646     "description": "Resource Type",
13647     "items": {
13648         "maxLength": 64,
13649         "type": "string"
13650     },
13651     "minItems": 1,
13652     "readOnly": true,
13653     "type": "array"
13654 },
13655 "step": {

```

```

13656         "anyOf": [
13657             {
13658                 "type": "integer"
13659             },
13660             {
13661                 "type": "number"
13662             }
13663         ],
13664         "description": "Step value across the defined range",
13665         "readOnly": true
13666     },
13667     "value": {
13668         "anyOf": [
13669             {
13670                 "type": "array"
13671             },
13672             {
13673                 "type": "string"
13674             },
13675             {
13676                 "type": "boolean"
13677             },
13678             {
13679                 "type": "integer"
13680             },
13681             {
13682                 "type": "number"
13683             },
13684             {
13685                 "type": "object"
13686             }
13687         ],
13688         "description": "The value sensed or actuated by this Resource"
13689     }
13690 },
13691 "required": [
13692     "airFlowControl"
13693 ],
13694 "type": "object"
13695 }
13696 }
13697 }
13698 }
13699

```

#### B.4.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
airFlowControl	array: see schema	yes		
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property

step	multiple types: see schema		Read Only	Step value across the defined range
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema	yes	Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
airFlowControl	array: see schema			
rt	array: see schema	yes	Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
value	multiple types: see schema			The value sensed or actuated by this Resource

#### 13701 B.4.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AirFlowControlResURI		get	post		

### 13702 B.5 Air Quality

#### 13703 B.5.1 Introduction

13704 This resource describes a qualitative or measured contaminant that can be used to infer Air Quality.  
13705 Measured is the actual sensed value with units per contaminant type as described below.  
13706 Qualitative is a representative value within the range provided where the minimum value is minimum  
13707 contamination and maximum value is maximum contamination for the specific contaminant.  
13708 The valueType indicates a qualitative or measured reading within the contaminantvalue Property.  
13709 contaminantvalue contains the actual measured or qualitative level.  
13710 range contains the allowed range for the value that is being reported (from oic.r.baseresource).  
13711 If valueType is 'Measured' then the units for the contaminant types are as follows:  
13712 Methanal (also known as Formaldehyde): CH<sub>2</sub>O (ug/m<sup>3</sup>),  
13713 Carbon Dioxide: CO<sub>2</sub> (ppm),  
13714 Carbon Monoxide: CO (ppm),  
13715 Particulate Matter (less than 2.5 microns in diameter): PM<sub>2.5</sub> (ug/m<sup>3</sup>),  
13716 Particulate Matter (less than 10 microns in diameter): PM<sub>10</sub> (ug/m<sup>3</sup>),  
13717 Volatile Organic Compounds: VOC (ug/m<sup>3</sup>)

13718 Retrieves the current air quality.  
13719

## 13720 B.5.2 Example URI

13721 /AirQualityResURI

## 13722 B.5.3 Resource Type

13723 The resource type (rt) is defined as: ['oic.r.airquality'].

## 13724 B.5.4 Swagger2.0 Definition

```
13725 {  
13726   "swagger": "2.0",  
13727   "info": {  
13728     "title": "Air Quality",  
13729     "version": "v1.1.0-20160519",  
13730     "license": {  
13731       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
13732       "x-description": "Redistribution and use in source and binary forms, with or without  
13733 modification, are permitted provided that the following conditions are met:\n      1.  
13734 Redistributions of source code must retain the above copyright notice, this list of conditions and  
13735 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
13736 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
13737 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open  
13738 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
13739 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
13740 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity  
13741 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
13742 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
13743 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND  
13744 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
13745 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
13746 OF SUCH DAMAGE.\n    }  
13747   },  
13748   "schemes": ["http"],  
13749   "consumes": ["application/json"],  
13750   "produces": ["application/json"],  
13751   "paths": {  
13752     "/AirQualityResURI" : {  
13753       "get": {  
13754         "description": "This resource describes a qualitative or measured contaminant that can be  
13755 used to infer Air Quality.\nMeasured is the actual sensed value with units per contaminant type as  
13756 described below.\nQualitative is a representative value within the range provided where the minium  
13757 value is minimum contamination and maximum value is maximum contamination for the specific  
13758 contaminant.\nThe valueType indicates a qualitative or measured reading within the contaminantvalue  
13759 Property.\ncontaminantvalue contains the actual measured or qualitative level.\nrange contains the  
13760 allowed range for the value that is being reported (from oic.r.baseresource).\nIf valueType is  
13761 'Measured' then the units for the contaminant types are as follows:\nMethanal (also known as  
13762 Formaldehyde): CH2O (ug/m^3),\nCarbon Dioxide: CO2 (ppm),\nCarbon Monoxide: CO (ppm),\n13763 Particulate Matter (less than 2.5 microns in diameter): PM2.5 (ug/m^3),\nParticulate Matter (less  
13764 than 10 microns in diameter): PM10 (ug/m^3),\nVolatile Organic Compounds: VOC (ug/m^3)\nRetrieves  
13765 the current air quality.\n",  
13766         "parameters": [  
13767           { "$ref": "#/parameters/interface" }  
13768         ],  
13769         "responses": {  
13770           "200": {  
13771             "description": "",  
13772             "x-example": {  
13773               {  
13774                 "rt": ["oic.r.airquality"],  
13775                 "id": "unique_example_id",  
13776                 "contaminanttype": "CO",  
13777                 "valuetype": "Measured",  
13778                 "contaminantvalue": 10,  
13779                 "range": [0,500]  
13780               }  
13781             },  
13782             "schema": { "$ref": "#/definitions/AirQuality" }  
13783           }  
13784         }  
13785       }  
13786     }  
13787   }  
13788 }
```

```

13784     }
13785   }
13786 }
13787 }
13788 },
13789 "parameters": {
13790   "interface" : {
13791     "in" : "query",
13792     "name" : "if",
13793     "type" : "string",
13794     "enum" : ["oic.if.s", "oic.if.baseline"]
13795   }
13796 },
13797 "definitions": {
13798   "AirQuality" :
13799     {
13800     "properties": {
13801       "contaminanttype": {
13802         "description": "The contaminant being measured.",
13803         "enum": [
13804           "CH2O",
13805           "CO2",
13806           "CO",
13807           "PM2.5",
13808           "PM10",
13809           "VOC",
13810           "Smoke",
13811           "Odor",
13812           "AirPollution"
13813         ],
13814         "readOnly": true
13815       },
13816       "contaminantvalue": {
13817         "description": "The measured or qualitative value for the contaminant.",
13818         "readOnly": true,
13819         "type": "integer"
13820       },
13821       "id": {
13822         "description": "Instance ID of this specific resource",
13823         "maxLength": 64,
13824         "readOnly": true,
13825         "type": "string"
13826       },
13827       "if": {
13828         "description": "The interface set supported by this resource",
13829         "items": {
13830           "enum": [
13831             "oic.if.baseline",
13832             "oic.if.ll",
13833             "oic.if.b",
13834             "oic.if.lb",
13835             "oic.if.rw",
13836             "oic.if.r",
13837             "oic.if.a",
13838             "oic.if.s"
13839           ],
13840           "type": "string"
13841         },
13842         "minItems": 1,
13843         "readOnly": true,
13844         "type": "array"
13845       },
13846       "n": {
13847         "description": "Friendly name of the resource",
13848         "maxLength": 64,
13849         "readOnly": true,
13850         "type": "string"
13851       },
13852       "precision": {
13853         "description": "Accuracy granularity of the exposed value",
13854         "readOnly": true,

```

```

13855     "type": "number"
13856   },
13857   "range": {
13858     "description": "The valid range for the value Property",
13859     "items": {
13860       "anyOf": [
13861         {
13862           "type": "number"
13863         },
13864         {
13865           "type": "integer"
13866         }
13867       ]
13868     },
13869     "maxItems": 2,
13870     "minItems": 2,
13871     "readOnly": true,
13872     "type": "array"
13873   },
13874   "rt": {
13875     "description": "Resource Type",
13876     "items": {
13877       "maxLength": 64,
13878       "type": "string"
13879     },
13880     "minItems": 1,
13881     "readOnly": true,
13882     "type": "array"
13883   },
13884   "step": {
13885     "anyOf": [
13886       {
13887         "type": "integer"
13888       },
13889       {
13890         "type": "number"
13891       }
13892     ],
13893     "description": "Step value across the defined range",
13894     "readOnly": true
13895   },
13896   "value": {
13897     "anyOf": [
13898       {
13899         "type": "array"
13900       },
13901       {
13902         "type": "string"
13903       },
13904       {
13905         "type": "boolean"
13906       },
13907       {
13908         "type": "integer"
13909       },
13910       {
13911         "type": "number"
13912       },
13913       {
13914         "type": "object"
13915       }
13916     ],
13917     "description": "The value sensed or actuated by this Resource"
13918   },
13919   "valuetype": {
13920     "description": "Indicates whether the provided value is qualitative or measured.",
13921     "enum": [
13922       "Qualitative",
13923       "Measured"
13924     ],
13925     "readOnly": true

```

```

13926     }
13927   },
13928   "required": [
13929     "contaminantvalue",
13930     "contaminanttype",
13931     "valuetype",
13932     "range"
13933   ],
13934   "type": "object"
13935 }
13936
13937 }
13938 }
13939

```

### B.5.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource
contaminantvalue	integer	yes	Read Only	The measured or qualitative value for the contaminant.
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
range	array: see schema	yes	Read Only	The valid range for the value Property
valuetype	multiple types: see schema	yes	Read Only	Indicates whether the provided value is qualitative or measured.
contaminanttype	multiple types: see schema	yes	Read Only	The contaminant being measured.
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type

### B.5.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AirQualityResURI		get			

## B.6 Air Quality Collection

### B.6.1 Introduction

This resource describes a sensor that provides the qualitative or measured Air Quality. The resource is a collection of instances of oic.r.airquality detailing the individual exposed contaminant measures. There is one collection entry per contaminant type supported by the device. A device must expose at least one measured or qualitative value. Retrieves the current air quality.

### B.6.2 Example URI

/AirQualityBaselineResURI

### B.6.3 Resource Type

The resource type (rt) is defined as: ['oic.r.airqualitycollection', 'oic.wk.col'].

### B.6.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Air Quality Collection",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n
1. Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n
2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n
THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n
IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n
HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/AirQualityLLResURI" : {
      "get": {
        "description": "This resource describes a sensor that provides the qualitative or measured
Air Quality.\nThe resource is a collection of instances of oic.r.airquality detailing the
individual exposed contaminant measures\nThere is one collection entry per contaminant type
supported by the device. A device must expose at least one measured or qualitative
value.\nRetrieves the current air quality.\n",
        "parameters": [
          {
            "$ref": "#/parameters/interface-11"
          }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": [
              {
                "href": "/myCOMeasureResURI", "rt": ["oic.r.airquality"], "if":
["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122}"}],
                "href": "/myCO2ResURI", "rt": ["oic.r.airquality"], "if":
["oic.if.s","oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122}"}]
              }
            ]
          }
        }
      }
    }
  }
}
```



```

14004         '
14005         "schema": { "$ref": "#/definitions/AirQuality-11" }
14006     }
14007 }
14008 }
14009 },
14010 "/AirQualityBaselineResURI" : {
14011     "get": {
14012         "description": "This resource describes a sensor that provides the qualitative or measured
14013 Air Quality.\nThe resource is a collection of instances of oic.r.airquality detailing the
14014 individual exposed contaminant measures\nThere is one collection entry per contaminant type
14015 supported by the device. A device must expose at least one measured or qualitative
14016 value.\nRetrieves the current air quality.\n",
14017         "parameters": [
14018             { "$ref": "#/parameters/interface-baseline" }
14019         ],
14020         "responses": {
14021             "200": {
14022                 "description": "",
14023                 "x-example":
14024                     {
14025                         "rt": ["oic.r.airqualitycollection", "oic.wk.col"],
14026                         "if": ["oic.if.baseline", "oic.if.11"],
14027                         "id": "unique_example_id",
14028                         "links": [
14029                             { "href": "/myCOMeasureResURI", "rt": ["oic.r.airquality"], "if":
14030 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]},
14031                             { "href": "/myCO2ResURI", "rt": ["oic.r.airquality"], "if":
14032 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]}
14033                         ]
14034                     }
14035             },
14036             "schema": { "$ref": "#/definitions/AirQuality" }
14037         }
14038     }
14039 }
14040 }
14041 },
14042 "parameters": {
14043     "interface-11" : {
14044         "in" : "query",
14045         "name" : "if",
14046         "type" : "string",
14047         "enum" : ["oic.if.11"]
14048     },
14049     "interface-baseline" : {
14050         "in" : "query",
14051         "name" : "if",
14052         "type" : "string",
14053         "enum" : ["oic.if.baseline"]
14054     },
14055     "interface-all" : {
14056         "in" : "query",
14057         "name" : "if",
14058         "type" : "string",
14059         "enum" : ["oic.if.11", "oic.if.baseline"]
14060     }
14061 },
14062 "definitions": {
14063     "AirQuality-11" :
14064         {
14065             "description": "All forms of links in a collection",
14066             "oneOf": [
14067                 {
14068                     "description": "A set (array) of simple or individual OIC Links. In addition to
14069 properties required for an OIC Link, the identifier for that link in this set is also required",
14070                     "items": {
14071                         "properties": {
14072                             "anchor": {
14073                                 "description": "This is used to override the context URI e.g. override the URI of
14074 the containing collection",

```

```

14075         "format": "uri",
14076         "maxLength": 256,
14077         "type": "string"
14078     },
14079     "di": {
14080         "description": "Unique identifier for device (UUID)",
14081         "pattern": "[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-
14082 F0-9]{12}$",
14083         "type": "string"
14084     },
14085     "eps": {
14086         "description": "the Endpoint information of the target Resource",
14087         "items": {
14088             "properties": {
14089                 "ep": {
14090                     "description": "URI with Transport Protocol Suites + Endpoint Locator as
14091 specified in 10.2.1",
14092                     "format": "uri",
14093                     "type": "string"
14094                 },
14095                 "pri": {
14096                     "description": "The priority among multiple Endpoints as specified in
14097 10.2.3",
14098                     "minimum": 1,
14099                     "type": "integer"
14100                 }
14101             },
14102             "type": "object"
14103         },
14104         "type": "array"
14105     },
14106     "href": {
14107         "description": "This is the target URI, it can be specified as a Relative
14108 Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to
14109 make it unique.",
14110         "format": "uri",
14111         "maxLength": 256,
14112         "type": "string"
14113     },
14114     "if": {
14115         "description": "The interface set supported by this resource",
14116         "items": {
14117             "enum": [
14118                 "oic.if.baseline",
14119                 "oic.if.ll",
14120                 "oic.if.b",
14121                 "oic.if.rw",
14122                 "oic.if.r",
14123                 "oic.if.a",
14124                 "oic.if.s"
14125             ],
14126             "type": "string"
14127         },
14128         "minItems": 1,
14129         "type": "array"
14130     },
14131     "ins": {
14132         "description": "The instance identifier for this web link in an array of web
14133 links - used in collections",
14134         "oneOf": [
14135             {
14136                 "description": "An ordinal number that is not repeated - must be unique in
14137 the collection context",
14138                 "type": "integer"
14139             },
14140             {
14141                 "description": "Any unique string including a URI",
14142                 "format": "uri",
14143                 "maxLength": 256,
14144                 "type": "string"
14145             }
14146         ]
14147     }
14148 }

```

```

14146         {
14147             "description": "Unique identifier (UUID)",
14148             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-
14149 fA-F0-9]{12}$",
14150             "type": "string"
14151         }
14152     ],
14153 },
14154     "p": {
14155         "description": "Specifies the framework policies on the Resource referenced by
14156 the target URI",
14157         "properties": {
14158             "bm": {
14159                 "description": "Specifies the framework policies on the Resource referenced
14160 by the target URI for e.g. observable and discoverable",
14161                 "type": "integer"
14162             }
14163         },
14164         "required": [
14165             "bm"
14166         ],
14167         "type": "object"
14168     },
14169     "rel": {
14170         "description": "The relation of the target URI referenced by the link to the
14171 context URI",
14172         "oneOf": [
14173             {
14174                 "default": [
14175                     "hosts"
14176                 ],
14177                 "items": {
14178                     "maxLength": 64,
14179                     "type": "string"
14180                 },
14181                 "minItems": 1,
14182                 "type": "array"
14183             },
14184             {
14185                 "default": "hosts",
14186                 "maxLength": 64,
14187                 "type": "string"
14188             }
14189         ]
14190     },
14191     "rt": {
14192         "description": "Resource Type",
14193         "items": {
14194             "maxLength": 64,
14195             "type": "string"
14196         },
14197         "minItems": 1,
14198         "type": "array"
14199     },
14200     "title": {
14201         "description": "A title for the link relation. Can be used by the UI to provide a
14202 context",
14203         "maxLength": 64,
14204         "type": "string"
14205     },
14206     "type": {
14207         "default": "application/cbor",
14208         "description": "A hint at the representation of the resource referenced by the
14209 target URI. This represents the media types that are used for both accepting and emitting",
14210         "items": {
14211             "maxLength": 64,
14212             "type": "string"
14213         },
14214         "minItems": 1,
14215         "type": "array"
14216     }

```

```

14217         },
14218         "required": [
14219             "href",
14220             "rt",
14221             "if"
14222         ],
14223         "type": "object"
14224     },
14225     "type": "array"
14226 }
14227 ]
14228 }
14229
14230 ,
14231 "AirQuality" :
14232 {
14233     "description": "A collection is a set (array) of tagged-link or set (array) of simple links
14234 along with additional properties to describe the collection itself",
14235     "properties": {
14236         "di": {
14237             "description": "The device ID which is an UUIDv4 string; used for backward
14238 compatibility with Spec A definition of /oic/res",
14239             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
14240 9]{12}$",
14241             "type": "string"
14242         },
14243         "drel": {
14244             "description": "When specified this is the default relationship to use when an OIC Link
14245 does not specify an explicit relationship with *rel* parameter",
14246             "type": "string"
14247         },
14248         "id": {
14249             "anyOf": [
14250                 {
14251                     "description": "A number that is unique to that collection; like an ordinal number
14252 that is not repeated",
14253                     "type": "integer"
14254                 },
14255                 {
14256                     "description": "A unique string that could be a hash or similarly unique",
14257                     "type": "string"
14258                 },
14259                 {
14260                     "description": "A unique string that could be a UUIDv4",
14261                     "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
14262 9]{12}$",
14263                     "type": "string"
14264                 }
14265             ],
14266             "description": "ID for the collection. Can be an value that is unique to the use
14267 context or a UUIDv4"
14268         },
14269         "links": {
14270             "description": "All forms of links in a collection",
14271             "oneOf": [
14272                 {
14273                     "description": "A set (array) of simple or individual OIC Links. In addition to
14274 properties required for an OIC Link, the identifier for that link in this set is also required",
14275                     "items": {
14276                         "properties": {
14277                             "anchor": {
14278                                 "description": "This is used to override the context URI e.g. override the
14279 URI of the containing collection",
14280                                 "format": "uri",
14281                                 "maxLength": 256,
14282                                 "type": "string"
14283                             },
14284                             "di": {
14285                                 "description": "Unique identifier for device (UUID)",
14286                                 "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-
14287 fA-F0-9]{12}$",

```

```

14288         "type": "string"
14289     },
14290     "eps": {
14291         "description": "the Endpoint information of the target Resource",
14292         "items": {
14293             "properties": {
14294                 "ep": {
14295                     "description": "URI with Transport Protocol Suites + Endpoint Locator
14296 as specified in 10.2.1",
14297                     "format": "uri",
14298                     "type": "string"
14299                 },
14300                 "pri": {
14301                     "description": "The priority among multiple Endpoints as specified in
14302 10.2.3",
14303                     "minimum": 1,
14304                     "type": "integer"
14305                 }
14306             },
14307             "type": "object"
14308         },
14309         "type": "array"
14310     },
14311     "href": {
14312         "description": "This is the target URI, it can be specified as a Relative
14313 Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to
14314 make it unique.",
14315         "format": "uri",
14316         "maxLength": 256,
14317         "type": "string"
14318     },
14319     "if": {
14320         "description": "The interface set supported by this resource",
14321         "items": {
14322             "enum": [
14323                 "oic.if.baseline",
14324                 "oic.if.ll",
14325                 "oic.if.b",
14326                 "oic.if.rw",
14327                 "oic.if.r",
14328                 "oic.if.a",
14329                 "oic.if.s"
14330             ],
14331             "type": "string"
14332         },
14333         "minItems": 1,
14334         "type": "array"
14335     },
14336     "ins": {
14337         "description": "The instance identifier for this web link in an array of web
14338 links - used in collections",
14339         "oneOf": [
14340             {
14341                 "description": "An ordinal number that is not repeated - must be unique
14342 in the collection context",
14343                 "type": "integer"
14344             },
14345             {
14346                 "description": "Any unique string including a URI",
14347                 "format": "uri",
14348                 "maxLength": 256,
14349                 "type": "string"
14350             },
14351             {
14352                 "description": "Unique identifier (UUID)",
14353                 "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-
14354 [a-fA-F0-9]{12}$",
14355                 "type": "string"
14356             }
14357         ]
14358     },

```

```

14359         "p": {
14360             "description": "Specifies the framework policies on the Resource referenced
by the target URI",
14361             "properties": {
14362                 "bm": {
14363                     "description": "Specifies the framework policies on the Resource
14364 referenced by the target URI for e.g. observable and discoverable",
14365                     "type": "integer"
14366                 }
14367             },
14368             "required": [
14369                 "bm"
14370             ],
14371             "type": "object"
14372         },
14373         "rel": {
14374             "description": "The relation of the target URI referenced by the link to the
14375 context URI",
14376             "oneOf": [
14377                 {
14378                     "default": [
14379                         "hosts"
14380                     ],
14381                     "items": {
14382                         "maxLength": 64,
14383                         "type": "string"
14384                     },
14385                     "minItems": 1,
14386                     "type": "array"
14387                 },
14388                 {
14389                     "default": "hosts",
14390                     "maxLength": 64,
14391                     "type": "string"
14392                 }
14393             ]
14394         },
14395         "rt": {
14396             "description": "Resource Type",
14397             "items": {
14398                 "maxLength": 64,
14399                 "type": "string"
14400             },
14401             "minItems": 1,
14402             "type": "array"
14403         },
14404         "title": {
14405             "description": "A title for the link relation. Can be used by the UI to
14406 provide a context",
14407             "maxLength": 64,
14408             "type": "string"
14409         },
14410         "type": {
14411             "default": "application/cbor",
14412             "description": "A hint at the representation of the resource referenced by
14413 the target URI. This represents the media types that are used for both accepting and emitting",
14414             "items": {
14415                 "maxLength": 64,
14416                 "type": "string"
14417             },
14418             "minItems": 1,
14419             "type": "array"
14420         }
14421     },
14422     "required": [
14423         "href",
14424         "rt",
14425         "if"
14426     ],
14427     "type": "object"
14428 },
14429

```

```

14430         "type": "array"
14431     }
14432 ]
14433 },
14434 "rt": {
14435     "items": {
14436         "enum": [
14437             "oic.r.airqualitycollection",
14438             "oic.wk.col"
14439         ]
14440     },
14441     "maxItems": 2,
14442     "minItems": 2,
14443     "type": "array",
14444     "uniqueItems": true
14445 },
14446 "rts": {
14447     "description": "Defines the list of allowable resource types (for Target and anchors)
in links included in the collection; new links being created can only be from this list",
14448     "items": {
14449         "anyOf": [
14450             {
14451                 "enum": [
14452                     "oic.r.airquality",
14453                     "oic.r.value.conditional"
14454                 ]
14455             },
14456             {
14457                 "enum": [
14458                     "oic.r.airquality"
14459                 ]
14460             }
14461         ]
14462     },
14463     "maxLength": 64,
14464     "type": "string"
14465 },
14466     "maxItems": 2,
14467     "minItems": 1,
14468     "readOnly": true,
14469     "type": "array",
14470     "uniqueItems": true
14471 },
14472 },
14473 "type": "object"
14474 }
14475 }
14476 }
14477 }
14478

```

## B.6.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rts	array: see schema		Read Only	Defines the list of allowable resource types (for Target and anchors) in links included in the collection; new links being created can only be from this list
rt	array: see schema	yes		
links	multiple types: see schema			All forms of links in a collection

drel	string			When specified this is the default relationship to use when an OIC Link does not specify an explicit relationship with *rel* parameter
di	string			The device ID which is an UUIDv4 string; used for backward compatibility with Spec A definition of /oic/res
id	multiple types: see schema			ID for the collection. Can be an value that is unique to the use context or a UUIDv4
rt	array: see schema	yes		Resource Type
eps	array: see schema			the Endpoint information of the target Resource
anchor	string			This is used to override the context URI e.g. override the URI of the containing collection
rel	multiple types: see schema			The relation of the target URI referenced by the link to the context URI
title	string			A title for the link relation. Can be used by the UI to provide a context
type	array: see schema			A hint at the representation of the resource referenced by the target URI. This represents the media types that are used for both accepting and emitting



href	string	yes		This is the target URI, it can be specified as a Relative Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to make it unique.
p	object: see schema			Specifies the framework policies on the Resource referenced by the target URI
di	string			Unique identifier for device (UUID)
ins	multiple types: see schema			The instance identifier for this web link in an array of web links - used in collections
if	array: see schema	yes		The interface set supported by this resource

## 14480 B.6.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AirQualityBaselineResURI		get			

## 14481 B.7 Altimeter

### 14482 B.7.1 Introduction

14483 This resource describes the properties associated with altimeter.  
14484 Altimeter is a height of the position (metres).  
14485 Retrieves the current the height of the position (metres).  
14486

### 14487 B.7.2 Example URI

14488 /AltimeterResURI

### 14489 B.7.3 Resource Type

14490 The resource type (rt) is defined as: ['oic.r.altimeter'].

### 14491 B.7.4 Swagger2.0 Definition

```

14492 {
14493   "swagger": "2.0",
14494   "info": {
14495     "title": "Altimeter",
14496     "version": "v1.1.0-20160519",
14497     "license": {
14498       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
14499       "x-description": "Redistribution and use in source and binary forms, with or without
14500 modification, are permitted provided that the following conditions are met:\n      1.
```

```

14501 Redistributions of source code must retain the above copyright notice, this list of conditions and
14502 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
14503 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
14504 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
14505 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
14506 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
14507 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
14508 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
14509 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
14510 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
14511 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
14512 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
14513 OF SUCH DAMAGE.\n"
14514 }
14515 },
14516 "schemes": ["http"],
14517 "consumes": ["application/json"],
14518 "produces": ["application/json"],
14519 "paths": {
14520     "/AltimeterResURI" : {
14521         "get": {
14522             "description": "This resource describes the properties associated with
14523 altimeter.\nAltimeter is a height of the position (metres).\nRetrieves the current the height of
14524 the position (metres).\n",
14525             "parameters": [
14526                 {"$ref": "#/parameters/interface"}
14527             ],
14528             "responses": {
14529                 "200": {
14530                     "description": "",
14531                     "x-example":
14532                     {
14533                         "rt": ["oic.r.altimeter"],
14534                         "id": "unique_example_id",
14535                         "alt": 1500.0
14536                     },
14537                     "schema": { "$ref": "#/definitions/Altimeter" }
14538                 }
14539             }
14540         }
14541     }
14542 },
14543 },
14544 "parameters": {
14545     "interface" : {
14546         "in" : "query",
14547         "name" : "if",
14548         "type" : "string",
14549         "enum" : ["oic.if.s", "oic.if.baseline"]
14550     }
14551 },
14552 "definitions": {
14553     "Altimeter" :
14554     {
14555         "properties": {
14556             "alt": {
14557                 "description": "The current height of the position (metres)",
14558                 "minimum": 0,
14559                 "readOnly": true,
14560                 "type": "number"
14561             },
14562             "id": {
14563                 "description": "Instance ID of this specific resource",
14564                 "maxLength": 64,
14565                 "readOnly": true,
14566                 "type": "string"
14567             },
14568             "if": {
14569                 "description": "The interface set supported by this resource",
14570                 "items": {
14571                     "enum": [

```

```

14572         "oic.if.baseline",
14573         "oic.if.ll",
14574         "oic.if.b",
14575         "oic.if.lb",
14576         "oic.if.rw",
14577         "oic.if.r",
14578         "oic.if.a",
14579         "oic.if.s"
14580     ],
14581     "type": "string"
14582 },
14583 "minItems": 1,
14584 "readOnly": true,
14585 "type": "array"
14586 },
14587 "n": {
14588     "description": "Friendly name of the resource",
14589     "maxLength": 64,
14590     "readOnly": true,
14591     "type": "string"
14592 },
14593 "precision": {
14594     "description": "Accuracy granularity of the exposed value",
14595     "readOnly": true,
14596     "type": "number"
14597 },
14598 "range": {
14599     "description": "The valid range for the value Property",
14600     "items": {
14601         "anyOf": [
14602             {
14603                 "type": "number"
14604             },
14605             {
14606                 "type": "integer"
14607             }
14608         ]
14609     },
14610     "maxItems": 2,
14611     "minItems": 2,
14612     "readOnly": true,
14613     "type": "array"
14614 },
14615 "rt": {
14616     "description": "Resource Type",
14617     "items": {
14618         "maxLength": 64,
14619         "type": "string"
14620     },
14621     "minItems": 1,
14622     "readOnly": true,
14623     "type": "array"
14624 },
14625 "step": {
14626     "anyOf": [
14627         {
14628             "type": "integer"
14629         },
14630         {
14631             "type": "number"
14632         }
14633     ],
14634     "description": "Step value across the defined range",
14635     "readOnly": true
14636 },
14637 "value": {
14638     "anyOf": [
14639         {
14640             "type": "array"
14641         },
14642         {

```

```

14643         "type": "string"
14644     },
14645     {
14646         "type": "boolean"
14647     },
14648     {
14649         "type": "integer"
14650     },
14651     {
14652         "type": "number"
14653     },
14654     {
14655         "type": "object"
14656     }
14657 ],
14658 "description": "The value sensed or actuated by this Resource"
14659 },
14660 },
14661 "required": [
14662     "alt"
14663 ],
14664 "type": "object"
14665 }
14666 }
14667 }
14668 }
14669

```

### B.7.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
alt	number	yes	Read Only	The current height of the position (metres)
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource

### B.7.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AltimeterResURI		get			

## B.8 Atmospheric Pressure Sensor

### B.8.1 Introduction

This resource provides a measurement of Mean Sea Level Pressure experienced at the measuring point expressed in millibars. The value is float which describes the atmospheric pressure in hPa (hectoPascals). Note that hPa and the also commonly used unit of millibars (mbar) are numerically equivalent.

### B.8.2 Example URI

/AtmosphericPressureResURI

### B.8.3 Resource Type

The resource type (rt) is defined as: ['oic.r.sensor.atmosphericpressure'].

### B.8.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Atmospheric Pressure Sensor",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/AtmosphericPressureResURI" : {
      "get": {
        "description": "This resource provides a measurement of Mean Sea Level Pressure experienced
at the measuring point expressed in millibars.\nThe value is float which describes the atmospheric
pressure in hPa (hectoPascals).\nNote that hPa and the also commonly used unit of millibars (mbar)
are numerically equivalent.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.sensor.atmosphericpressure"],
              "id": "unique_example_id",
              "atmosphericPressure": 1000.4
            }
          },
          "schema": { "$ref": "#/definitions/atmosphericPressure" }
        }
      }
    }
  }
}
```

```

14735     }
14736   },
14737   "parameters": {
14738     "interface" : {
14739       "in" : "query",
14740       "name" : "if",
14741       "type" : "string",
14742       "enum" : ["oic.if.s", "oic.if.baseline"]
14743     }
14744   },
14745   "definitions": {
14746     "atmosphericPressure" :
14747     {
14748       "properties": {
14749         "atmosphericPressure": {
14750           "description": "Current atmospheric pressure in hPa.",
14751           "readOnly": true,
14752           "type": "number"
14753         },
14754         "id": {
14755           "description": "Instance ID of this specific resource",
14756           "maxLength": 64,
14757           "readOnly": true,
14758           "type": "string"
14759         },
14760         "if": {
14761           "description": "The interface set supported by this resource",
14762           "items": {
14763             "enum": [
14764               "oic.if.baseline",
14765               "oic.if.ll",
14766               "oic.if.b",
14767               "oic.if.lb",
14768               "oic.if.rw",
14769               "oic.if.r",
14770               "oic.if.a",
14771               "oic.if.s"
14772             ],
14773             "type": "string"
14774           },
14775           "minItems": 1,
14776           "readOnly": true,
14777           "type": "array"
14778         },
14779         "n": {
14780           "description": "Friendly name of the resource",
14781           "maxLength": 64,
14782           "readOnly": true,
14783           "type": "string"
14784         },
14785         "precision": {
14786           "description": "Accuracy granularity of the exposed value",
14787           "readOnly": true,
14788           "type": "number"
14789         },
14790         "range": {
14791           "description": "The valid range for the value Property",
14792           "items": {
14793             "anyOf": [
14794               {
14795                 "type": "number"
14796               },
14797               {
14798                 "type": "integer"
14799               }
14800             ]
14801           },
14802           "maxItems": 2,
14803           "minItems": 2,
14804           "readOnly": true,
14805           "type": "array"

```

```

14806     },
14807     "rt": {
14808         "description": "Resource Type",
14809         "items": {
14810             "maxLength": 64,
14811             "type": "string"
14812         },
14813         "minItems": 1,
14814         "readOnly": true,
14815         "type": "array"
14816     },
14817     "step": {
14818         "anyOf": [
14819             {
14820                 "type": "integer"
14821             },
14822             {
14823                 "type": "number"
14824             }
14825         ],
14826         "description": "Step value across the defined range",
14827         "readOnly": true
14828     },
14829     "value": {
14830         "anyOf": [
14831             {
14832                 "type": "array"
14833             },
14834             {
14835                 "type": "string"
14836             },
14837             {
14838                 "type": "boolean"
14839             },
14840             {
14841                 "type": "integer"
14842             },
14843             {
14844                 "type": "number"
14845             },
14846             {
14847                 "type": "object"
14848             }
14849         ],
14850         "description": "The value sensed or actuated by this Resource"
14851     }
14852 },
14853 "required": [
14854     "atmosphericPressure"
14855 ]
14856 }
14857
14858 }
14859 }
14860

```

### B.8.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type

step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
atmosphericPressure	number	yes	Read Only	Current atmospheric pressure in hPa.

## 14862 B.8.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AtmosphericPressureResURI		get			

## 14863 B.9 Audio Controls

### 14864 B.9.1 Introduction

14865 This resource defines basic audio control functions.  
14866 The volume is an integer containing a percentage [0,100].  
14867 A volume of 0 (zero) means no sound produced.  
14868 A volume of 100 means maximum sound production.  
14869 The mute control is implemented as a boolean.  
14870 A mute value of true means that the device is muted (no audio).  
14871 A mute value of false means that the device is not muted (audio).  
14872

### 14873 B.9.2 Example URI

14874 /AudioResURI

### 14875 B.9.3 Resource Type

14876 The resource type (rt) is defined as: ['oic.r.audio'].

### 14877 B.9.4 Swagger2.0 Definition

```

14878 {
14879   "swagger": "2.0",
14880   "info": {
14881     "title": "Audio Controls",
14882     "version": "v1.1.0-20160519",
14883     "license": {
14884       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
14885       "x-description": "Redistribution and use in source and binary forms, with or without
14886 modification, are permitted provided that the following conditions are met:\n      1.
14887 Redistributions of source code must retain the above copyright notice, this list of conditions and
14888 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
14889 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
14890 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
14891 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
14892 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
14893 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
14894 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
```



```

14895 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
14896 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
14897 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
14898 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
14899 OF SUCH DAMAGE.\n"
14900     }
14901   },
14902   "schemes": ["http"],
14903   "consumes": ["application/json"],
14904   "produces": ["application/json"],
14905   "paths": {
14906     "/AudioResURI" : {
14907       "get": {
14908         "description": "This resource defines basic audio control functions.\nThe volume is an
14909 integer containing a percentage [0,100].\nA volume of 0 (zero) means no sound produced.\nA volume
14910 of 100 means maximum sound production.\nThe mute control is implemented as a boolean.\nA mute value
14911 of true means that the device is muted (no audio).\nA mute value of false means that the device is
14912 not muted (audio).\n",
14913         "parameters": [
14914           { "$ref": "#/parameters/interface" }
14915         ],
14916         "responses": {
14917           "200": {
14918             "description": "",
14919             "x-example":
14920               {
14921                 "rt": ["oic.r.audio"],
14922                 "id": "unique_example_id",
14923                 "volume": 50,
14924                 "mute": false
14925               }
14926             ,
14927             "schema": { "$ref": "#/definitions/Audio" }
14928           }
14929         }
14930       },
14931       "post": {
14932         "description": "",
14933         "parameters": [
14934           { "$ref": "#/parameters/interface" },
14935           {
14936             "name": "body",
14937             "in": "body",
14938             "required": true,
14939             "schema": { "$ref": "#/definitions/Audio" },
14940             "x-example":
14941               {
14942                 "id": "unique_example_id",
14943                 "volume": 75,
14944                 "mute": false
14945               }
14946           }
14947         ],
14948         "responses": {
14949           "200": {
14950             "description": "",
14951             "x-example":
14952               {
14953                 "id": "unique_example_id",
14954                 "volume": 75,
14955                 "mute": false
14956               }
14957             ,
14958             "schema": { "$ref": "#/definitions/Audio" }
14959           }
14960         }
14961       }
14962     }
14963   },
14964   "parameters": {
14965     "interface" : {

```

```

14966     "in" : "query",
14967     "name" : "if",
14968     "type" : "string",
14969     "enum" : ["oic.if.a", "oic.if.baseline"]
14970   }
14971 },
14972 "definitions": {
14973   "Audio" :
14974     {
14975       "properties": {
14976         "id": {
14977           "description": "Instance ID of this specific resource",
14978           "maxLength": 64,
14979           "readOnly": true,
14980           "type": "string"
14981         },
14982         "if": {
14983           "description": "The interface set supported by this resource",
14984           "items": {
14985             "enum": [
14986               "oic.if.baseline",
14987               "oic.if.ll",
14988               "oic.if.b",
14989               "oic.if.lb",
14990               "oic.if.rw",
14991               "oic.if.x",
14992               "oic.if.a",
14993               "oic.if.s"
14994             ],
14995             "type": "string"
14996           },
14997           "minItems": 1,
14998           "readOnly": true,
14999           "type": "array"
15000         },
15001         "mute": {
15002           "description": "Mute setting of an audio rendering device",
15003           "type": "boolean"
15004         },
15005         "n": {
15006           "description": "Friendly name of the resource",
15007           "maxLength": 64,
15008           "readOnly": true,
15009           "type": "string"
15010         },
15011         "precision": {
15012           "description": "Accuracy granularity of the exposed value",
15013           "readOnly": true,
15014           "type": "number"
15015         },
15016         "range": {
15017           "description": "The valid range for the value Property",
15018           "items": {
15019             "anyOf": [
15020               {
15021                 "type": "number"
15022               },
15023               {
15024                 "type": "integer"
15025               }
15026             ]
15027           },
15028           "maxItems": 2,
15029           "minItems": 2,
15030           "readOnly": true,
15031           "type": "array"
15032         },
15033         "rt": {
15034           "description": "Resource Type",
15035           "items": {
15036             "maxLength": 64,

```

```

15037         "type": "string"
15038     },
15039     "minItems": 1,
15040     "readOnly": true,
15041     "type": "array"
15042 },
15043 "step": {
15044     "anyOf": [
15045         {
15046             "type": "integer"
15047         },
15048         {
15049             "type": "number"
15050         }
15051     ],
15052     "description": "Step value across the defined range",
15053     "readOnly": true
15054 },
15055 "value": {
15056     "anyOf": [
15057         {
15058             "type": "array"
15059         },
15060         {
15061             "type": "string"
15062         },
15063         {
15064             "type": "boolean"
15065         },
15066         {
15067             "type": "integer"
15068         },
15069         {
15070             "type": "number"
15071         },
15072         {
15073             "type": "object"
15074         }
15075     ],
15076     "description": "The value sensed or actuated by this Resource"
15077 },
15078 "volume": {
15079     "description": "Volume setting of an audio rendering device.",
15080     "maximum": 100,
15081     "minimum": 0,
15082     "type": "integer"
15083 },
15084 },
15085 "required": [
15086     "volume",
15087     "mute"
15088 ],
15089 "type": "object"
15090 }
15091 }
15092 }
15093 }
15094

```

### B.9.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property

precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
volume	integer	yes		Volume setting of an audio rendering device.
mute	boolean	yes		Mute setting of an audio rendering device
id	string		Read Only	Instance ID of this specific resource

#### 15096 B.9.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AudioResURI		get	post		

#### 15097 B.10 Auto Focus

##### 15098 B.10.1 Introduction

15099 This resource describes an auto focus on/off feature.  
15100 The value is a boolean.  
15101 An AutoFocus value of 'true' means that the switch is on.  
15102 An AutoFocus value of 'false' means that the switch is off.  
15103 Note that when Pan Tilt Zoom (see 'Pan Tilt Zoom' Resource definition) is used the autofocus  
15104 works only in the selected area.  
15105

##### 15106 B.10.2 Example URI

15107 /AutoFocusResURI

##### 15108 B.10.3 Resource Type

15109 The resource type (rt) is defined as: ['oic.r.autofocus'].

##### 15110 B.10.4 Swagger2.0 Definition

```

15111 {
15112   "swagger": "2.0",
15113   "info": {
15114     "title": "Auto Focus",
15115     "version": "v1.1.0-20160519",
15116     "license": {
15117       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
15118       "x-description": "Redistribution and use in source and binary forms, with or without
15119 modification, are permitted provided that the following conditions are met:\n      1.
15120 Redistributions of source code must retain the above copyright notice, this list of conditions and
15121 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
15122 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
15123 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
15124 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT

```

```

15125 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
15126 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n          IN NO EVENT SHALL THE Open Connectivity
15127 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
15128 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
15129 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
15130 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
15131 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
15132 OF SUCH DAMAGE.\n"
15133 }
15134 },
15135 "schemes": ["http"],
15136 "consumes": ["application/json"],
15137 "produces": ["application/json"],
15138 "paths": {
15139     "/AutoFocusResURI" : {
15140         "get": {
15141             "description": "This resource describes an auto focus on/off feature.\nThe value is a
15142 boolean.\nAn AutoFocus value of 'true' means that the switch is on.\nAn AutoFocus value of 'false'
15143 means that the switch is off.\nNote that when Pan Tilt Zoom (see 'Pan Tilt Zoom' Resource
15144 definition) is used the autofocus works only in the selected area.\n",
15145             "parameters": [
15146                 { "$ref": "#/parameters/interface" }
15147             ],
15148             "responses": {
15149                 "200": {
15150                     "description": "",
15151                     "x-example":
15152                     {
15153                         "rt": ["oic.r.autofocus"],
15154                         "id": "unique_example_id",
15155                         "autoFocus": false
15156                     },
15157                     "schema": { "$ref": "#/definitions/AutoFocus" }
15158                 }
15159             }
15160         },
15161     },
15162     "post": {
15163         "description": "",
15164         "parameters": [
15165             { "$ref": "#/parameters/interface" },
15166             {
15167                 "name": "body",
15168                 "in": "body",
15169                 "required": true,
15170                 "schema": { "$ref": "#/definitions/AutoFocus" },
15171                 "x-example":
15172                 {
15173                     "id": "unique_example_id",
15174                     "autoFocus": true
15175                 }
15176             }
15177         ],
15178         "responses": {
15179             "200": {
15180                 "description": "",
15181                 "x-example":
15182                 {
15183                     "id": "unique_example_id",
15184                     "autoFocus": true
15185                 },
15186                 "schema": { "$ref": "#/definitions/AutoFocus" }
15187             }
15188         }
15189     }
15190 },
15191 },
15192 },
15193 "parameters": {
15194     "interface" : {
15195         "in" : "query",

```

```

15196         "name" : "if",
15197         "type" : "string",
15198         "enum" : ["oic.if.a", "oic.if.baseline"]
15199     }
15200 },
15201 "definitions": {
15202     "AutoFocus" :
15203     {
15204         "properties": {
15205             "autoFocus": {
15206                 "description": "Status of the Auto Focus",
15207                 "type": "boolean"
15208             },
15209             "id": {
15210                 "description": "Instance ID of this specific resource",
15211                 "maxLength": 64,
15212                 "readOnly": true,
15213                 "type": "string"
15214             },
15215             "if": {
15216                 "description": "The interface set supported by this resource",
15217                 "items": {
15218                     "enum": [
15219                         "oic.if.baseline",
15220                         "oic.if.ll",
15221                         "oic.if.b",
15222                         "oic.if.lb",
15223                         "oic.if.rw",
15224                         "oic.if.r",
15225                         "oic.if.a",
15226                         "oic.if.s"
15227                     ],
15228                     "type": "string"
15229                 },
15230                 "minItems": 1,
15231                 "readOnly": true,
15232                 "type": "array"
15233             },
15234             "n": {
15235                 "description": "Friendly name of the resource",
15236                 "maxLength": 64,
15237                 "readOnly": true,
15238                 "type": "string"
15239             },
15240             "precision": {
15241                 "description": "Accuracy granularity of the exposed value",
15242                 "readOnly": true,
15243                 "type": "number"
15244             },
15245             "range": {
15246                 "description": "The valid range for the value Property",
15247                 "items": {
15248                     "anyOf": [
15249                         {
15250                             "type": "number"
15251                         },
15252                         {
15253                             "type": "integer"
15254                         }
15255                     ]
15256                 },
15257                 "maxItems": 2,
15258                 "minItems": 2,
15259                 "readOnly": true,
15260                 "type": "array"
15261             },
15262             "rt": {
15263                 "description": "Resource Type",
15264                 "items": {
15265                     "maxLength": 64,
15266                     "type": "string"

```

```

15267         },
15268         "minItems": 1,
15269         "readOnly": true,
15270         "type": "array"
15271     },
15272     "step": {
15273         "anyOf": [
15274             {
15275                 "type": "integer"
15276             },
15277             {
15278                 "type": "number"
15279             }
15280         ],
15281         "description": "Step value across the defined range",
15282         "readOnly": true
15283     },
15284     "value": {
15285         "anyOf": [
15286             {
15287                 "type": "array"
15288             },
15289             {
15290                 "type": "string"
15291             },
15292             {
15293                 "type": "boolean"
15294             },
15295             {
15296                 "type": "integer"
15297             },
15298             {
15299                 "type": "number"
15300             },
15301             {
15302                 "type": "object"
15303             }
15304         ],
15305         "description": "The value sensed or actuated by this Resource"
15306     }
15307 },
15308 "required": [
15309     "autoFocus"
15310 ],
15311 "type": "object"
15312 }
15313 }
15314 }
15315 }
15316

```

#### B.10.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
autoFocus	boolean	yes		Status of the Auto Focus
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range

n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource

## 15318 B.10.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AutoFocusResURI		get	post		

## 15319 B.11 Automatic Document Feeder

### 15320 B.11.1 Introduction

15321 This resource describes the state of an automatic document feeder, typically used with a scanner.  
 15322 The states are read only.  
 15323 The adfStates is an array of the possible operational states.  
 15324 adfProcessing is the OK state, other states are errors or require 'user attention'.  
 15325 The currentAdfState is the current value of the ADF state on the device.  
 15326 Retrieves the current automatic document feeder state.  
 15327

### 15328 B.11.2 Example URI

15329 /AutomaticDocumentFeederResURI

### 15330 B.11.3 Resource Type

15331 The resource type (rt) is defined as: ['oic.r.automaticdocumentfeeder'].

### 15332 B.11.4 Swagger2.0 Definition

```

15333 {
15334   "swagger": "2.0",
15335   "info": {
15336     "title": "Automatic Document Feeder",
15337     "version": "v1.1.0-20160519",
15338     "license": {
15339       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
15340       "x-description": "Redistribution and use in source and binary forms, with or without
15341 modification, are permitted provided that the following conditions are met:\n      1.
15342 Redistributions of source code must retain the above copyright notice, this list of conditions and
15343 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
15344 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
15345 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
15346 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
15347 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
15348 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
15349 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
15350 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
15351 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
15352 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
15353 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
15354 OF SUCH DAMAGE.\n"
15355     }
15356   },
15357   "schemes": ["http"],
15358   "consumes": ["application/json"],
  
```



```

15359     "produces": ["application/json"],
15360     "paths": {
15361         "/AutomaticDocumentFeederResURI" : {
15362             "get": {
15363                 "description": "This resource describes the state of an automatic document feeder,
15364 typically used with a scanner.\nThe states are read only.\nThe adfStates is an array of the
15365 possible operational states.\nadfProcessing is the OK state, other states are errors or require
15366 'user attention'. \nThe currentAdfState is the current value of the ADF state on the
15367 device.\nRetrieves the current automatic document feeder state.\n",
15368                 "parameters": [
15369                     { "$ref": "#/parameters/interface" }
15370                 ],
15371                 "responses": {
15372                     "200": {
15373                         "description": "",
15374                         "x-example":
15375                             {
15376                                 "rt": ["oic.r.automaticdocumentfeeder"],
15377                                 "id": "unique_example_id",
15378                                 "adfStates": ["adfProcessing", "adfEmpty", "adfJam", "adfLoaded",
15379 "adfMispick", "adfHatchOpen", "adfDuplexPageTooShort", "adfDuplexPageTooLong",
15380 "adfMultipickDetected", "adfInputTrayFailed", "adfInputTrayOverloaded"],
15381                                 "currentAdfState": "adfProcessing"
15382                             }
15383                         ,
15384                         "schema": { "$ref": "#/definitions/AutomaticDocumentFeeder" }
15385                     }
15386                 }
15387             }
15388         },
15389     },
15390     "parameters": {
15391         "interface" : {
15392             "in" : "query",
15393             "name" : "if",
15394             "type" : "string",
15395             "enum" : ["oic.if.s", "oic.if.baseline"]
15396         }
15397     },
15398     "definitions": {
15399         "AutomaticDocumentFeeder" :
15400         {
15401             "properties": {
15402                 "adfStates": {
15403                     "description": "array of the possible adf states.",
15404                     "items": {
15405                         "type": "string"
15406                     },
15407                     "readOnly": true,
15408                     "type": "array"
15409                 },
15410                 "currentAdfState": {
15411                     "description": "Current adf state.",
15412                     "readOnly": true,
15413                     "type": "string"
15414                 },
15415                 "id": {
15416                     "description": "Instance ID of this specific resource",
15417                     "maxLength": 64,
15418                     "readOnly": true,
15419                     "type": "string"
15420                 },
15421                 "if": {
15422                     "description": "The interface set supported by this resource",
15423                     "items": {
15424                         "enum": [
15425                             "oic.if.baseline",
15426                             "oic.if.ll",
15427                             "oic.if.b",
15428                             "oic.if.lb",
15429                             "oic.if.rw",

```

```

15430         "oic.if.r",
15431         "oic.if.a",
15432         "oic.if.s"
15433     ],
15434     "type": "string"
15435 },
15436 "minItems": 1,
15437 "readOnly": true,
15438 "type": "array"
15439 },
15440 "n": {
15441     "description": "Friendly name of the resource",
15442     "maxLength": 64,
15443     "readOnly": true,
15444     "type": "string"
15445 },
15446 "precision": {
15447     "description": "Accuracy granularity of the exposed value",
15448     "readOnly": true,
15449     "type": "number"
15450 },
15451 "range": {
15452     "description": "The valid range for the value Property",
15453     "items": {
15454         "anyOf": [
15455             {
15456                 "type": "number"
15457             },
15458             {
15459                 "type": "integer"
15460             }
15461         ]
15462     },
15463     "maxItems": 2,
15464     "minItems": 2,
15465     "readOnly": true,
15466     "type": "array"
15467 },
15468 "rt": {
15469     "description": "Resource Type",
15470     "items": {
15471         "maxLength": 64,
15472         "type": "string"
15473     },
15474     "minItems": 1,
15475     "readOnly": true,
15476     "type": "array"
15477 },
15478 "step": {
15479     "anyOf": [
15480         {
15481             "type": "integer"
15482         },
15483         {
15484             "type": "number"
15485         }
15486     ],
15487     "description": "Step value across the defined range",
15488     "readOnly": true
15489 },
15490 "value": {
15491     "anyOf": [
15492         {
15493             "type": "array"
15494         },
15495         {
15496             "type": "string"
15497         },
15498         {
15499             "type": "boolean"
15500         }
15501     ]
15502 }

```

```

15501         {
15502             "type": "integer"
15503         },
15504         {
15505             "type": "number"
15506         },
15507         {
15508             "type": "object"
15509         }
15510     ],
15511     "description": "The value sensed or actuated by this Resource"
15512 }
15513 },
15514 "required": [
15515     "adfStates",
15516     "currentAdfState"
15517 ],
15518 "type": "object"
15519 }
15520 }
15521 }
15522 }
15523

```

#### 15524 B.11.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range
adfStates	array: see schema	yes	Read Only	array of the possible adf states.
currentAdfState	string	yes	Read Only	Current adf state.
range	array: see schema		Read Only	The valid range for the value Property
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value

#### 15525 B.11.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/AutomaticDocumentFeederResURI		get			

## B.12 Base Resource Schema

### B.12.1 Introduction

This is the base resource schema on which all other resources defined in this specification build. value is the sensed or actuated value of the Resource. precision is the accuracy granularity of the value. range is the range over which value is valid. step is the step function over the defined range if applicable (e.g. always step by '2'). retrieves the state of the resource.

### B.12.2 Example URI

/BaseResourceSchemaResURI

### B.12.3 Resource Type

The resource type (rt) is defined as: ['oic.baseresource'].

### B.12.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Base Resource Schema",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/BaseResourceSchemaResURI" : {
      "get": {
        "description": "This is the base resource schema on which all other resources defined in
this specification build.\nvalue is the sensed or actuated value of the Resource.\nprecision is the
accuracy granularity of the value.\nrange is the range over which value is valid.\nstep is the step
function over the defined range if applicable (e.g. always step by '2').\nretrieves the state of
the resource.",
        "parameters": [
          {"$ref": "#/parameters/interface-baseline"}
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt" : ["oic.baseresource"],
              "if": ["oic.if.baseline"],
              "id": "unique_example_id",
              "value": 10.5,
              "precision": 0.5,
              "range": [0.0,100.0]
            }
          }
        }
      }
    }
  }
}
```

```

15588         }
15589     },
15590     "schema": { "$ref": "#/definitions/base" }
15591 }
15592 },
15593 },
15594 "post": {
15595     "description": "sets the read-write resource properties",
15596     "parameters": [
15597         { "$ref": "#/parameters/interface-a" },
15598         {
15599             "name": "body",
15600             "in": "body",
15601             "required": true,
15602             "schema": { "$ref": "#/definitions/base" },
15603             "x-example":
15604                 {
15605                     "value": 20.5
15606                 }
15607         }
15608     ],
15609     "responses": {
15610         "200": {
15611             "description": "",
15612             "x-example":
15613                 {
15614                     "value": 20.5
15615                 }
15616             ,
15617             "schema": { "$ref": "#/definitions/base" }
15618         }
15619     }
15620 }
15621 },
15622 },
15623 "parameters": {
15624     "interface-a" : {
15625         "in" : "query",
15626         "name" : "if",
15627         "type" : "string",
15628         "enum" : ["oic.if.a"]
15629     },
15630     "interface-baseline" : {
15631         "in" : "query",
15632         "name" : "if",
15633         "type" : "string",
15634         "enum" : ["oic.if.baseline"]
15635     }
15636 },
15637 "definitions": {
15638     "base" :
15639         {
15640             "properties": {
15641                 "id": {
15642                     "description": "Instance ID of this specific resource",
15643                     "maxLength": 64,
15644                     "readOnly": true,
15645                     "type": "string"
15646                 },
15647                 "if": {
15648                     "description": "The interface set supported by this resource",
15649                     "items": {
15650                         "enum": [
15651                             "oic.if.baseline",
15652                             "oic.if.ll",
15653                             "oic.if.b",
15654                             "oic.if.lb",
15655                             "oic.if.rw",
15656                             "oic.if.x",
15657                             "oic.if.a",
15658                             "oic.if.s"

```

```

15659         ],
15660         "type": "string"
15661     },
15662     "minItems": 1,
15663     "readOnly": true,
15664     "type": "array"
15665 },
15666 "n": {
15667     "description": "Friendly name of the resource",
15668     "maxLength": 64,
15669     "readOnly": true,
15670     "type": "string"
15671 },
15672 "precision": {
15673     "description": "Accuracy granularity of the exposed value",
15674     "readOnly": true,
15675     "type": "number"
15676 },
15677 "range": {
15678     "description": "The valid range for the value Property",
15679     "items": {
15680         "anyOf": [
15681             {
15682                 "type": "number"
15683             },
15684             {
15685                 "type": "integer"
15686             }
15687         ]
15688     },
15689     "maxItems": 2,
15690     "minItems": 2,
15691     "readOnly": true,
15692     "type": "array"
15693 },
15694 "rt": {
15695     "description": "Resource Type",
15696     "items": {
15697         "maxLength": 64,
15698         "type": "string"
15699     },
15700     "minItems": 1,
15701     "readOnly": true,
15702     "type": "array"
15703 },
15704 "step": {
15705     "anyOf": [
15706         {
15707             "type": "integer"
15708         },
15709         {
15710             "type": "number"
15711         }
15712     ],
15713     "description": "Step value across the defined range",
15714     "readOnly": true
15715 },
15716 "value": {
15717     "anyOf": [
15718         {
15719             "type": "array"
15720         },
15721         {
15722             "type": "string"
15723         },
15724         {
15725             "type": "boolean"
15726         },
15727         {
15728             "type": "integer"
15729         }

```

```
15730         {
15731             "type": "number"
15732         },
15733         {
15734             "type": "object"
15735         }
15736     ],
15737     "description": "The value sensed or actuated by this Resource"
15738 },
15739 },
15740 "type": "object"
15741 }
15742 }
15743 }
15744 }
```

15746 **B.12.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property

15747 **B.12.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/BaseResourceSchemaResURI		get	post		

15748 **B.13 Battery**

15749 **B.13.1 Introduction**

15750 This resource describes the attributes associated with a battery. The charge is an integer showing  
15751 the current battery charge level as a percentage in the range 0 (fully discharged) to 100 (fully  
15752 charged). The capacity represents the total capacity of battery in Amp Hours (Ah). The charging  
15753 status and discharging status are represented by boolean values set to "True" indicating enabled  
15754 and "False" indicating disabled. Low battery status is represented by a boolean value set to "True"  
15755 indicating low charge level and "False" indicating otherwise, based upon the battery threshold  
15756 represented as a percentage.  
15757 Retrieves the state of the battery.  
15758

## B.13.2 Example URI

/BatteryResURI

## B.13.3 Resource Type

The resource type (rt) is defined as: ['oic.r.energy.battery'].

## B.13.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Battery",
    "version": "v1.2.0-20170814",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/BatteryResURI" : {
      "get": {
        "description": "This resource describes the attributes associated with a battery. The
charge is an integer showing the current battery charge level as a percentage in the range 0 (fully
discharged) to 100 (fully charged). The capacity represents the total capacity of battery in Amp
Hours (Ah). The charging status and discharging status are represented by boolean values set to
\\"True\\" indicating enabled and \\"False\\" indicating disabled. Low battery status is represented by
a boolean value set to \\"True\\" indicating low charge level and \\"False\\" indicating otherwise,
based upon the battery threshold represented as a percentage.\nRetrieves the state of the
battery.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.energy.battery"],
              "id": "unique_example_id",
              "charge": 50,
              "capacity": 3000,
              "charging": true,
              "discharging": false,
              "lowbattery": false,
              "batterythreshold": 20
            }
          },
          "schema": { "$ref": "#/definitions/Battery" }
        }
      },
      "post": {
        "description": "Sets current battery values\n",

```



```

15826     "parameters": [
15827         { "$ref": "#/parameters/interface" },
15828     ],
15829     "name": "body",
15830     "in": "body",
15831     "required": true,
15832     "schema": { "$ref": "#/definitions/BatteryUpdate" },
15833     "x-example":
15834         {
15835             "id": "unique_example_id",
15836             "batterythreshold": 20
15837         }
15838 ],
15839 },
15840 "responses": {
15841     "200": {
15842         "description": "",
15843         "x-example":
15844             {
15845                 "id": "unique_example_id",
15846                 "batterythreshold": 20
15847             },
15848         "schema": { "$ref": "#/definitions/BatteryUpdate" }
15849     }
15850 },
15851 }
15852 }
15853 },
15854 },
15855 "parameters": {
15856     "interface": {
15857         "in": "query",
15858         "name": "if",
15859         "type": "string",
15860         "enum": ["oic.if.rw", "oic.if.baseline"]
15861     }
15862 },
15863 "definitions": {
15864     "Battery":
15865         {
15866         "properties": {
15867             "batterythreshold": {
15868                 "description": "The threshold percentage for the low battery warning.",
15869                 "maximum": 100,
15870                 "minimum": 0,
15871                 "type": "integer"
15872             },
15873             "capacity": {
15874                 "description": "The total capacity in Amp-hours (Ah).",
15875                 "readOnly": true,
15876                 "type": "number"
15877             },
15878             "charge": {
15879                 "description": "The current charge percentage.",
15880                 "maximum": 100,
15881                 "minimum": 0,
15882                 "readOnly": true,
15883                 "type": "integer"
15884             },
15885             "charging": {
15886                 "description": "The status of charging.",
15887                 "readOnly": true,
15888                 "type": "boolean"
15889             },
15890             "discharging": {
15891                 "description": "The status of discharging.",
15892                 "readOnly": true,
15893                 "type": "boolean"
15894             },
15895             "id": {
15896                 "description": "Instance ID of this specific resource",

```

```

15897         "maxLength": 64,
15898         "readOnly": true,
15899         "type": "string"
15900     },
15901     "if": {
15902         "description": "The interface set supported by this resource",
15903         "items": {
15904             "enum": [
15905                 "oic.if.baseline",
15906                 "oic.if.ll",
15907                 "oic.if.b",
15908                 "oic.if.lb",
15909                 "oic.if.rw",
15910                 "oic.if.r",
15911                 "oic.if.a",
15912                 "oic.if.s"
15913             ],
15914             "type": "string"
15915         },
15916         "minItems": 1,
15917         "readOnly": true,
15918         "type": "array"
15919     },
15920     "lowbattery": {
15921         "description": "The status of the low battery warning based upon the defined
15922 threshold.",
15923         "readOnly": true,
15924         "type": "boolean"
15925     },
15926     "n": {
15927         "description": "Friendly name of the resource",
15928         "maxLength": 64,
15929         "readOnly": true,
15930         "type": "string"
15931     },
15932     "precision": {
15933         "description": "Accuracy granularity of the exposed value",
15934         "readOnly": true,
15935         "type": "number"
15936     },
15937     "range": {
15938         "description": "The valid range for the value Property",
15939         "items": {
15940             "anyOf": [
15941                 {
15942                     "type": "number"
15943                 },
15944                 {
15945                     "type": "integer"
15946                 }
15947             ]
15948         },
15949         "maxItems": 2,
15950         "minItems": 2,
15951         "readOnly": true,
15952         "type": "array"
15953     },
15954     "rt": {
15955         "description": "Resource Type",
15956         "items": {
15957             "maxLength": 64,
15958             "type": "string"
15959         },
15960         "minItems": 1,
15961         "readOnly": true,
15962         "type": "array"
15963     },
15964     "step": {
15965         "anyOf": [
15966             {
15967                 "type": "integer"

```

```

15968         },
15969         {
15970             "type": "number"
15971         }
15972     ],
15973     "description": "Step value across the defined range",
15974     "readOnly": true
15975 },
15976 "value": {
15977     "anyOf": [
15978         {
15979             "type": "array"
15980         },
15981         {
15982             "type": "string"
15983         },
15984         {
15985             "type": "boolean"
15986         },
15987         {
15988             "type": "integer"
15989         },
15990         {
15991             "type": "number"
15992         },
15993         {
15994             "type": "object"
15995         }
15996     ],
15997     "description": "The value sensed or actuated by this Resource"
15998 }
15999 },
16000 "required": [
16001     "charge"
16002 ],
16003 "type": "object"
16004 }
16005
16006 ,
16007 "BatteryUpdate" :
16008 {
16009     "properties": {
16010         "batterythreshold": {
16011             "description": "The threshold percentage for the low battery warning.",
16012             "maximum": 100,
16013             "minimum": 0,
16014             "type": "integer"
16015         },
16016         "id": {
16017             "description": "Instance ID of this specific resource",
16018             "maxLength": 64,
16019             "readOnly": true,
16020             "type": "string"
16021         },
16022         "if": {
16023             "description": "The interface set supported by this resource",
16024             "items": {
16025                 "enum": [
16026                     "oic.if.baseline",
16027                     "oic.if.ll",
16028                     "oic.if.b",
16029                     "oic.if.lb",
16030                     "oic.if.rw",
16031                     "oic.if.r",
16032                     "oic.if.a",
16033                     "oic.if.s"
16034                 ],
16035                 "type": "string"
16036             },
16037             "minItems": 1,
16038             "readOnly": true,

```

```

16039         "type": "array"
16040     },
16041     "n": {
16042         "description": "Friendly name of the resource",
16043         "maxLength": 64,
16044         "readOnly": true,
16045         "type": "string"
16046     },
16047     "precision": {
16048         "description": "Accuracy granularity of the exposed value",
16049         "readOnly": true,
16050         "type": "number"
16051     },
16052     "range": {
16053         "description": "The valid range for the value Property",
16054         "items": {
16055             "anyOf": [
16056                 {
16057                     "type": "number"
16058                 },
16059                 {
16060                     "type": "integer"
16061                 }
16062             ]
16063         },
16064         "maxItems": 2,
16065         "minItems": 2,
16066         "readOnly": true,
16067         "type": "array"
16068     },
16069     "rt": {
16070         "description": "Resource Type",
16071         "items": {
16072             "maxLength": 64,
16073             "type": "string"
16074         },
16075         "minItems": 1,
16076         "readOnly": true,
16077         "type": "array"
16078     },
16079     "step": {
16080         "anyOf": [
16081             {
16082                 "type": "integer"
16083             },
16084             {
16085                 "type": "number"
16086             }
16087         ],
16088         "description": "Step value across the defined range",
16089         "readOnly": true
16090     },
16091     "value": {
16092         "anyOf": [
16093             {
16094                 "type": "array"
16095             },
16096             {
16097                 "type": "string"
16098             },
16099             {
16100                 "type": "boolean"
16101             },
16102             {
16103                 "type": "integer"
16104             },
16105             {
16106                 "type": "number"
16107             },
16108             {
16109                 "type": "object"

```

```

16110     }
16111     ],
16112     "description": "The value sensed or actuated by this Resource"
16113   },
16114 },
16115 "required": [
16116   "batterythreshold"
16117 ],
16118 "type": "object"
16119 }
16120
16121 }
16122 }
16123

```

### B.13.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
lowbattery	boolean		Read Only	The status of the low battery warning based upon the defined threshold.
discharging	boolean		Read Only	The status of discharging.
value	multiple types: see schema			The value sensed or actuated by this Resource
batterythreshold	integer			The threshold percentage for the low battery warning.
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
charge	integer	yes	Read Only	The current charge percentage.
capacity	number		Read Only	The total capacity in Amp-hours (Ah).
id	string		Read Only	Instance ID of this specific resource
rt	array: see schema		Read Only	Resource Type
n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource

charging	boolean		Read Only	The status of charging.
value	multiple types: see schema			The value sensed or actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
batterythreshold	integer	yes		The threshold percentage for the low battery warning.
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type

### 16125 B.13.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/BatteryResURI		get	post		

## 16126 B.14 Binary Switch

### 16127 B.14.1 Introduction

16128 This resource describes a binary switch (on/off).  
 16129 The value is a boolean.  
 16130 A value of 'true' means that the switch is on.  
 16131 A value of 'false' means that the switch is off.

16132

### 16133 B.14.2 Example URI

16134 /BinarySwitchResURI

### 16135 B.14.3 Resource Type

16136 The resource type (rt) is defined as: ['oic.r.switch.binary'].

### 16137 B.14.4 Swagger2.0 Definition

```

16138 {
16139   "swagger": "2.0",
16140   "info": {
16141     "title": "Binary Switch",
16142     "version": "v1.1.0-20160519",
16143     "license": {
16144       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",

```

```

16145         "x-description": "Redistribution and use in source and binary forms, with or without
16146 modification, are permitted provided that the following conditions are met:\n          1.
16147 Redistributions of source code must retain the above copyright notice, this list of conditions and
16148 the following disclaimer.\n          2. Redistributions in binary form must reproduce the above
16149 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
16150 other materials provided with the distribution.\n\n          THIS SOFTWARE IS PROVIDED BY THE Open
16151 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
16152 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
16153 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n          IN NO EVENT SHALL THE Open Connectivity
16154 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
16155 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
16156 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
16157 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
16158 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
16159 OF SUCH DAMAGE.\n"
16160     },
16161 },
16162 "schemes": ["http"],
16163 "consumes": ["application/json"],
16164 "produces": ["application/json"],
16165 "paths": {
16166     "/BinarySwitchResURI" : {
16167         "get": {
16168             "description": "This resource describes a binary switch (on/off).\nThe value is a
16169 boolean.\nA value of 'true' means that the switch is on.\nA value of 'false' means that the switch
16170 is off.\n",
16171             "parameters": [
16172                 { "$ref": "#/parameters/interface" }
16173             ],
16174             "responses": {
16175                 "200": {
16176                     "description": "",
16177                     "x-example":
16178                         {
16179                             "rt": ["oic.r.switch.binary"],
16180                             "id": "unique_example_id",
16181                             "value": false
16182                         },
16183                     ,
16184                     "schema": { "$ref": "#/definitions/BinarySwitch" }
16185                 }
16186             },
16187         },
16188         "post": {
16189             "description": "",
16190             "parameters": [
16191                 { "$ref": "#/parameters/interface" },
16192                 {
16193                     "name": "body",
16194                     "in": "body",
16195                     "required": true,
16196                     "schema": { "$ref": "#/definitions/BinarySwitch" },
16197                     "x-example":
16198                         {
16199                             "id": "unique_example_id",
16200                             "value": true
16201                         }
16202                 }
16203             ],
16204             "responses": {
16205                 "200": {
16206                     "description": "",
16207                     "x-example":
16208                         {
16209                             "id": "unique_example_id",
16210                             "value": true
16211                         },
16212                     ,
16213                     "schema": { "$ref": "#/definitions/BinarySwitch" }
16214                 }
16215             }
16216         }
16217     }
16218 }

```

```

16216     }
16217   }
16218 },
16219 "parameters": {
16220   "interface" : {
16221     "in" : "query",
16222     "name" : "if",
16223     "type" : "string",
16224     "enum" : ["oic.if.a", "oic.if.baseline"]
16225   }
16226 },
16227 "definitions": {
16228   "BinarySwitch" :
16229   {
16230     "properties": {
16231       "id": {
16232         "description": "Instance ID of this specific resource",
16233         "maxLength": 64,
16234         "readOnly": true,
16235         "type": "string"
16236       },
16237       "if": {
16238         "description": "The interface set supported by this resource",
16239         "items": {
16240           "enum": [
16241             "oic.if.baseline",
16242             "oic.if.ll",
16243             "oic.if.b",
16244             "oic.if.lb",
16245             "oic.if.rw",
16246             "oic.if.r",
16247             "oic.if.a",
16248             "oic.if.s"
16249           ],
16250           "type": "string"
16251         },
16252         "minItems": 1,
16253         "readOnly": true,
16254         "type": "array"
16255       },
16256       "n": {
16257         "description": "Friendly name of the resource",
16258         "maxLength": 64,
16259         "readOnly": true,
16260         "type": "string"
16261       },
16262       "precision": {
16263         "description": "Accuracy granularity of the exposed value",
16264         "readOnly": true,
16265         "type": "number"
16266       },
16267       "range": {
16268         "description": "The valid range for the value Property",
16269         "items": {
16270           "anyOf": [
16271             {
16272               "type": "number"
16273             },
16274             {
16275               "type": "integer"
16276             }
16277           ]
16278         },
16279         "maxItems": 2,
16280         "minItems": 2,
16281         "readOnly": true,
16282         "type": "array"
16283       },
16284       "rt": {
16285         "description": "Resource Type",
16286         "items": {

```



```

16287         "maxLength": 64,
16288         "type": "string"
16289     },
16290     "minItems": 1,
16291     "readOnly": true,
16292     "type": "array"
16293 },
16294 "step": {
16295     "anyOf": [
16296         {
16297             "type": "integer"
16298         },
16299         {
16300             "type": "number"
16301         }
16302     ],
16303     "description": "Step value across the defined range",
16304     "readOnly": true
16305 },
16306 "value": {
16307     "description": "Status of the switch",
16308     "type": "boolean"
16309 }
16310 },
16311 "required": [
16312     "value"
16313 ],
16314 "type": "object"
16315 }
16316 }
16317 }
16318 }
16319

```

#### 16320 B.14.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
range	array: see schema		Read Only	The valid range for the value Property
value	boolean	yes		Status of the switch
n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type

#### 16321 B.14.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/BinarySwitchResURI		get	post		

## B.15 Brightness

### B.15.1 Introduction

This resource describes the brightness of a light or lamp. brightness is an integer showing the current brightness level as a quantized representation in the range 0-100.

A brightness of 0 is the minimum for the resource.  
A brightness of 100 is the maximum for the resource.  
Retrieves the current brightness level.

### B.15.2 Example URI

/BrightnessResURI

### B.15.3 Resource Type

The resource type (rt) is defined as: ['oic.r.light.brightness'].

### B.15.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Brightness",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n
1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n
2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n
THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \n\"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n
IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n
HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/BrightnessResURI" : {
      "get": {
        "description": "This resource describes the brightness of a light or lamp.\nbrightness is
an integer showing the current brightness level as a quantized representation in the range 0-
100.\nA brightness of 0 is the minimum for the resource.\nA brightness of 100 is the maximum for
the resource.\nRetrieves the current brightness level.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.light.brightness"],
              "id": "unique_example_id",
              "brightness": 50
            }
          },
          "schema": { "$ref": "#/definitions/Brightness" }
        }
      }
    }
  }
}
```

```

16384     }
16385   },
16386 },
16387 "post": {
16388   "description": "Sets the desired brightness level.\n",
16389   "parameters": [
16390     { "$ref": "#/parameters/interface" },
16391     {
16392       "name": "body",
16393       "in": "body",
16394       "required": true,
16395       "schema": { "$ref": "#/definitions/Brightness" },
16396       "x-example":
16397         {
16398           "id": "unique_example_id",
16399           "brightness": 10
16400         }
16401     }
16402   ],
16403   "responses": {
16404     "200": {
16405       "description": "Indicates that the brightness was changed.\nThe new brightness level
16406 is provided in the response.\n",
16407       "x-example":
16408         {
16409           "id": "unique_example_id",
16410           "brightness": 10
16411         },
16412       "schema": { "$ref": "#/definitions/Brightness" }
16413     }
16414   }
16415 },
16416 },
16417 },
16418 },
16419 "parameters": {
16420   "interface": {
16421     "in": "query",
16422     "name": "if",
16423     "type": "string",
16424     "enum": ["oic.if.a", "oic.if.baseline"]
16425   }
16426 },
16427 "definitions": {
16428   "Brightness": {
16429     {
16430       "properties": {
16431         "brightness": {
16432           "description": "Quantized representation in the range 0-100 of the current sensed or
16433 set value for Brightness",
16434           "maximum": 100,
16435           "minimum": 0,
16436           "type": "integer"
16437         }
16438       },
16439       "id": {
16440         "description": "Instance ID of this specific resource",
16441         "maxLength": 64,
16442         "readOnly": true,
16443         "type": "string"
16444       },
16445       "if": {
16446         "description": "The interface set supported by this resource",
16447         "items": {
16448           "enum": [
16449             "oic.if.baseline",
16450             "oic.if.ll",
16451             "oic.if.b",
16452             "oic.if.lb",
16453             "oic.if.rw",
16454             "oic.if.r",
16455             "oic.if.a",

```

```

16455         "oic.if.s"
16456     ],
16457     "type": "string"
16458 },
16459     "minItems": 1,
16460     "readOnly": true,
16461     "type": "array"
16462 },
16463     "n": {
16464         "description": "Friendly name of the resource",
16465         "maxLength": 64,
16466         "readOnly": true,
16467         "type": "string"
16468     },
16469     "precision": {
16470         "description": "Accuracy granularity of the exposed value",
16471         "readOnly": true,
16472         "type": "number"
16473     },
16474     "range": {
16475         "description": "The valid range for the value Property",
16476         "items": {
16477             "anyOf": [
16478                 {
16479                     "type": "number"
16480                 },
16481                 {
16482                     "type": "integer"
16483                 }
16484             ]
16485         },
16486         "maxItems": 2,
16487         "minItems": 2,
16488         "readOnly": true,
16489         "type": "array"
16490     },
16491     "rt": {
16492         "description": "Resource Type",
16493         "items": {
16494             "maxLength": 64,
16495             "type": "string"
16496         },
16497         "minItems": 1,
16498         "readOnly": true,
16499         "type": "array"
16500     },
16501     "step": {
16502         "anyOf": [
16503             {
16504                 "type": "integer"
16505             },
16506             {
16507                 "type": "number"
16508             }
16509         ],
16510         "description": "Step value across the defined range",
16511         "readOnly": true
16512     },
16513     "value": {
16514         "anyOf": [
16515             {
16516                 "type": "array"
16517             },
16518             {
16519                 "type": "string"
16520             },
16521             {
16522                 "type": "boolean"
16523             },
16524             {
16525                 "type": "integer"

```

```

16526         },
16527         {
16528             "type": "number"
16529         },
16530         {
16531             "type": "object"
16532         }
16533     ],
16534     "description": "The value sensed or actuated by this Resource"
16535 },
16536 },
16537 "required": [
16538     "brightness"
16539 ],
16540 "type": "object"
16541 }
16542 }
16543 }
16544 }
16545

```

### B.15.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
brightness	integer	yes		Quantized representation in the range 0-100 of the current sensed or set value for Brightness
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource

### B.15.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/BrightnessResURI		get	post		

## B.16 Button Switch

### B.16.1 Introduction

This resource describes the operation of a button style switch. The value is a boolean. A value of 'true' means that the button is being pushed/pressed. A value of 'false' means that the button is not being pushed/pressed.

### B.16.2 Example URI

/ButtonResURI

### B.16.3 Resource Type

The resource type (rt) is defined as: ['oic.r.button'].

### B.16.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Button Switch",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/ButtonResURI" : {
      "get": {
        "description": "This resource describes the operation of a button style switch.\nThe value
is a boolean.\nA value of 'true' means that the button is being pushed/pressed.\nA value of 'false'
means that the button is not being pushed/pressed.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.button"],
              "id": "unique_example_id",
              "value": true
            }
          },
          "schema": { "$ref": "#/definitions/Button" }
        }
      }
    }
  }
}
```

```

16611 },
16612 "parameters": {
16613   "interface" : {
16614     "in" : "query",
16615     "name" : "if",
16616     "type" : "string",
16617     "enum" : ["oic.if.s", "oic.if.baseline"]
16618   }
16619 },
16620 "definitions": {
16621   "Button" :
16622     {
16623     "properties": {
16624       "id": {
16625         "description": "Instance ID of this specific resource",
16626         "maxLength": 64,
16627         "readOnly": true,
16628         "type": "string"
16629       },
16630       "if": {
16631         "description": "The interface set supported by this resource",
16632         "items": {
16633           "enum": [
16634             "oic.if.baseline",
16635             "oic.if.ll",
16636             "oic.if.b",
16637             "oic.if.lb",
16638             "oic.if.rw",
16639             "oic.if.r",
16640             "oic.if.a",
16641             "oic.if.s"
16642           ],
16643           "type": "string"
16644         },
16645         "minItems": 1,
16646         "readOnly": true,
16647         "type": "array"
16648       },
16649       "n": {
16650         "description": "Friendly name of the resource",
16651         "maxLength": 64,
16652         "readOnly": true,
16653         "type": "string"
16654       },
16655       "precision": {
16656         "description": "Accuracy granularity of the exposed value",
16657         "readOnly": true,
16658         "type": "number"
16659       },
16660       "range": {
16661         "description": "The valid range for the value Property",
16662         "items": {
16663           "anyOf": [
16664             {
16665               "type": "number"
16666             },
16667             {
16668               "type": "integer"
16669             }
16670           ]
16671         },
16672         "maxItems": 2,
16673         "minItems": 2,
16674         "readOnly": true,
16675         "type": "array"
16676       },
16677       "rt": {
16678         "description": "Resource Type",
16679         "items": {
16680           "maxLength": 64,
16681           "type": "string"

```

```

16682         },
16683         "minItems": 1,
16684         "readOnly": true,
16685         "type": "array"
16686     },
16687     "step": {
16688         "anyOf": [
16689             {
16690                 "type": "integer"
16691             },
16692             {
16693                 "type": "number"
16694             }
16695         ],
16696         "description": "Step value across the defined range",
16697         "readOnly": true
16698     },
16699     "value": {
16700         "description": "Status of the button",
16701         "readOnly": true,
16702         "type": "boolean"
16703     }
16704 },
16705 "required": [
16706     "value"
16707 ]
16708 }
16709
16710 }
16711 }
16712

```

### B.16.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
value	boolean	yes	Read Only	Status of the button
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
range	array: see schema		Read Only	The valid range for the value Property
id	string		Read Only	Instance ID of this specific resource

### B.16.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ButtonResURI		get			



## B.17 Carbon Dioxide Sensor

### B.17.1 Introduction

This resource describes whether carbon dioxide has been sensed or not. The value is a boolean. A value of 'true' means that carbon dioxide has been detected. A value of 'false' means that carbon dioxide has not been detected.

### B.17.2 Example URI

/CarbonDioxideResURI

### B.17.3 Resource Type

The resource type (rt) is defined as: ['oic.r.sensor.carbondioxide'].

### B.17.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Carbon Dioxide Sensor",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/CarbonDioxideResURI" : {
      "get": {
        "description": "This resource describes whether carbon dioxide has been sensed or not.\nThe
value is a boolean.\nA value of 'true' means that carbon dioxide has been detected.\nA value of
'false' means that carbon dioxide has not been detected.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": [ "oic.r.sensor.carbondioxide" ],
              "id": "unique_example_id",
              "value": true
            }
          },
          "schema": { "$ref": "#/definitions/CO2" }
        }
      }
    }
  }
}
```

```

16778 },
16779 "parameters": {
16780   "interface" : {
16781     "in" : "query",
16782     "name" : "if",
16783     "type" : "string",
16784     "enum" : ["oic.if.s", "oic.if.baseline"]
16785   }
16786 },
16787 "definitions": {
16788   "CO2" :
16789     {
16790       "properties": {
16791         "id": {
16792           "description": "Instance ID of this specific resource",
16793           "maxLength": 64,
16794           "readOnly": true,
16795           "type": "string"
16796         },
16797         "if": {
16798           "description": "The interface set supported by this resource",
16799           "items": {
16800             "enum": [
16801               "oic.if.baseline",
16802               "oic.if.ll",
16803               "oic.if.b",
16804               "oic.if.lb",
16805               "oic.if.rw",
16806               "oic.if.r",
16807               "oic.if.a",
16808               "oic.if.s"
16809             ],
16810             "type": "string"
16811           },
16812           "minItems": 1,
16813           "readOnly": true,
16814           "type": "array"
16815         },
16816         "n": {
16817           "description": "Friendly name of the resource",
16818           "maxLength": 64,
16819           "readOnly": true,
16820           "type": "string"
16821         },
16822         "precision": {
16823           "description": "Accuracy granularity of the exposed value",
16824           "readOnly": true,
16825           "type": "number"
16826         },
16827         "range": {
16828           "description": "The valid range for the value Property",
16829           "items": {
16830             "anyOf": [
16831               {
16832                 "type": "number"
16833               },
16834               {
16835                 "type": "integer"
16836               }
16837             ]
16838           },
16839           "maxItems": 2,
16840           "minItems": 2,
16841           "readOnly": true,
16842           "type": "array"
16843         },
16844         "rt": {
16845           "description": "Resource Type",
16846           "items": {
16847             "maxLength": 64,
16848             "type": "string"

```

```

16849         },
16850         "minItems": 1,
16851         "readOnly": true,
16852         "type": "array"
16853     },
16854     "step": {
16855         "anyOf": [
16856             {
16857                 "type": "integer"
16858             },
16859             {
16860                 "type": "number"
16861             }
16862         ],
16863         "description": "Step value across the defined range",
16864         "readOnly": true
16865     },
16866     "value": {
16867         "description": "true = sensed, false = not sensed.",
16868         "readOnly": true,
16869         "type": "boolean"
16870     }
16871 },
16872 "required": [
16873     "value"
16874 ],
16875 "type": "object"
16876 }
16877 }
16878 }
16879 }
16880

```

#### B.17.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
value	boolean	yes	Read Only	true = sensed, false = not sensed.
id	string		Read Only	Instance ID of this specific resource

#### B.17.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/CarbonDioxideResURI		get			

## B.18 Carbon Monoxide Sensor

### B.18.1 Introduction

This resource describes whether carbon monoxide has been sensed or not. The value is a boolean. A value of 'true' means that carbon monoxide has been detected. A value of 'false' means that carbon monoxide has not been detected.

### B.18.2 Example URI

/CarbonMonoxideResURI

### B.18.3 Resource Type

The resource type (rt) is defined as: ['oic.r.sensor.carbonmonoxide'].

### B.18.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Carbon Monoxide Sensor",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/CarbonMonoxideResURI" : {
      "get": {
        "description": "This resource describes whether carbon monoxide has been sensed or
not.\nThe value is a boolean.\nA value of 'true' means that carbon monoxide has been detected.\nA
value of 'false' means that carbon monoxide has not been detected.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.sensor.carbonmonoxide"],
              "id": "unique_example_id",
              "value": true
            }
          },
          "schema": { "$ref": "#/definitions/CO" }
        }
      }
    }
  }
}
```

```

16946 },
16947 "parameters": {
16948   "interface" : {
16949     "in" : "query",
16950     "name" : "if",
16951     "type" : "string",
16952     "enum" : ["oic.if.s", "oic.if.baseline"]
16953   }
16954 },
16955 "definitions": {
16956   "CO" :
16957     {
16958     "properties": {
16959       "id": {
16960         "description": "Instance ID of this specific resource",
16961         "maxLength": 64,
16962         "readOnly": true,
16963         "type": "string"
16964       },
16965       "if": {
16966         "description": "The interface set supported by this resource",
16967         "items": {
16968           "enum": [
16969             "oic.if.baseline",
16970             "oic.if.ll",
16971             "oic.if.b",
16972             "oic.if.lb",
16973             "oic.if.rw",
16974             "oic.if.r",
16975             "oic.if.a",
16976             "oic.if.s"
16977           ],
16978           "type": "string"
16979         },
16980         "minItems": 1,
16981         "readOnly": true,
16982         "type": "array"
16983       },
16984       "n": {
16985         "description": "Friendly name of the resource",
16986         "maxLength": 64,
16987         "readOnly": true,
16988         "type": "string"
16989       },
16990       "precision": {
16991         "description": "Accuracy granularity of the exposed value",
16992         "readOnly": true,
16993         "type": "number"
16994       },
16995       "range": {
16996         "description": "The valid range for the value Property",
16997         "items": {
16998           "anyOf": [
16999             {
17000               "type": "number"
17001             },
17002             {
17003               "type": "integer"
17004             }
17005           ]
17006         },
17007         "maxItems": 2,
17008         "minItems": 2,
17009         "readOnly": true,
17010         "type": "array"
17011       },
17012       "rt": {
17013         "description": "Resource Type",
17014         "items": {
17015           "maxLength": 64,
17016           "type": "string"

```

```

17017         },
17018         "minItems": 1,
17019         "readOnly": true,
17020         "type": "array"
17021     },
17022     "step": {
17023         "anyOf": [
17024             {
17025                 "type": "integer"
17026             },
17027             {
17028                 "type": "number"
17029             }
17030         ],
17031         "description": "Step value across the defined range",
17032         "readOnly": true
17033     },
17034     "value": {
17035         "description": "true = sensed, false = not sensed.",
17036         "readOnly": true,
17037         "type": "boolean"
17038     }
17039 },
17040 "required": [
17041     "value"
17042 ],
17043 "type": "object"
17044 }
17045 }
17046 }
17047 }
17048

```

#### B.18.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
n	string		Read Only	Friendly name of the resource
range	array: see schema		Read Only	The valid range for the value Property
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
value	boolean	yes	Read Only	true = sensed, false = not sensed.
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type

#### B.18.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/CarbonMonoxideResURI		get			

## B.19 Clock

### B.19.1 Introduction

This resource describes the properties associated with clock and time. Clock is a time information. Datetime is using ISO 8601 datetime format (e.g: "2007-04-05T14:30Z") (Time+Date+Timezone) Countdown is the desired total seconds for countdown. Retrieves the current datetime data.

### B.19.2 Example URI

/ClockResURI

### B.19.3 Resource Type

The resource type (rt) is defined as: ['oic.r.clock'].

### B.19.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Clock",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n
1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n
2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n
THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n
IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n
HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/ClockResURI" : {
      "get": {
        "description": "This resource describes the properties associated with clock and
time.\nClock is a time information.\nDatetime is using ISO 8601 datetime format (e.g: \"2007-04-
05T14:30Z\") (Time+Date+Timezone)\nCountdown is the desired total seconds for countdown.\nRetrieves
the current datetime data.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.clock"],
              "id": "unique_example_id",
              "datetime": "2015-11-05T14:30Z",
              "countdown": 0.0
            }
          },
          "schema": { "$ref": "#/definitions/Clock" }
        }
      }
    }
  }
}
```

```

17113     }
17114   },
17115 },
17116 "post": {
17117   "description": "Sets the desired datetime.\n",
17118   "parameters": [
17119     { "$ref": "#/parameters/interface" },
17120     {
17121       "name": "body",
17122       "in": "body",
17123       "required": true,
17124       "schema": { "$ref": "#/definitions/Clock" },
17125       "x-example":
17126         {
17127           "id": "unique_example_id",
17128           "datetime": "2015-11-05T14:30Z",
17129           "countdown": 0.0
17130         }
17131     },
17132   ],
17133   "responses": {
17134     "200": {
17135       "description": "Indicates that the datetime value was successfully changed.\n\nThe new
17136 datetime value is provided in the response.\n",
17137       "x-example":
17138         {
17139           "id": "unique_example_id",
17140           "datetime": "2015-11-05T14:30Z",
17141           "countdown": 0.0
17142         },
17143       "schema": { "$ref": "#/definitions/Clock" }
17144     },
17145     "403": {
17146       "description": "Indicates that OIC client sent an invalid property value to the
17147 server.\n\nThe server responds with the required input representation.\n",
17148       "x-example":
17149         {
17150           "id": "unique_example_id",
17151           "datetime": "2015-11-05T14:30Z",
17152           "countdown": 0.0
17153         },
17154       "schema": { "$ref": "#/definitions/Clock" }
17155     }
17156   }
17157 },
17158 },
17159 },
17160 },
17161 },
17162 "parameters": {
17163   "interface": {
17164     "in": "query",
17165     "name": "if",
17166     "type": "string",
17167     "enum": ["oic.if.a", "oic.if.baseline"]
17168   }
17169 },
17170 "definitions": {
17171   "Clock": {
17172     {
17173       "properties": {
17174         "countdown": {
17175           "description": "Desired total seconds for countdown",
17176           "minimum": 0,
17177           "type": "number"
17178         },
17179         "datetime": {
17180           "description": "Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z, 2007-04-
17181 05T14:30+09:00)",
17182           "type": "string"
17183         }
17184       }
17185     }
17186   }
17187 }

```



```

17184 "id": {
17185     "description": "Instance ID of this specific resource",
17186     "maxLength": 64,
17187     "readOnly": true,
17188     "type": "string"
17189 },
17190 "if": {
17191     "description": "The interface set supported by this resource",
17192     "items": {
17193         "enum": [
17194             "oic.if.baseline",
17195             "oic.if.ll",
17196             "oic.if.b",
17197             "oic.if.lb",
17198             "oic.if.rw",
17199             "oic.if.x",
17200             "oic.if.a",
17201             "oic.if.s"
17202         ],
17203         "type": "string"
17204     },
17205     "minItems": 1,
17206     "readOnly": true,
17207     "type": "array"
17208 },
17209 "n": {
17210     "description": "Friendly name of the resource",
17211     "maxLength": 64,
17212     "readOnly": true,
17213     "type": "string"
17214 },
17215 "precision": {
17216     "description": "Accuracy granularity of the exposed value",
17217     "readOnly": true,
17218     "type": "number"
17219 },
17220 "range": {
17221     "description": "The valid range for the value Property",
17222     "items": {
17223         "anyOf": [
17224             {
17225                 "type": "number"
17226             },
17227             {
17228                 "type": "integer"
17229             }
17230         ]
17231     },
17232     "maxItems": 2,
17233     "minItems": 2,
17234     "readOnly": true,
17235     "type": "array"
17236 },
17237 "rt": {
17238     "description": "Resource Type",
17239     "items": {
17240         "maxLength": 64,
17241         "type": "string"
17242     },
17243     "minItems": 1,
17244     "readOnly": true,
17245     "type": "array"
17246 },
17247 "step": {
17248     "anyOf": [
17249         {
17250             "type": "integer"
17251         },
17252         {
17253             "type": "number"
17254         }

```

```

17255         ],
17256         "description": "Step value across the defined range",
17257         "readOnly": true
17258     },
17259     "value": {
17260         "anyOf": [
17261             {
17262                 "type": "array"
17263             },
17264             {
17265                 "type": "string"
17266             },
17267             {
17268                 "type": "boolean"
17269             },
17270             {
17271                 "type": "integer"
17272             },
17273             {
17274                 "type": "number"
17275             },
17276             {
17277                 "type": "object"
17278             }
17279         ],
17280         "description": "The value sensed or actuated by this Resource"
17281     }
17282 },
17283 "required": [
17284     "datetime"
17285 ],
17286 "type": "object"
17287 }
17288
17289 }
17290 }
17291

```

### B.19.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
if	array: see schema		Read Only	The interface set supported by this resource
datetime	string	yes		Using ISO 8601 datetime format (e.g: 2007-04-05T14:30Z, 2007-04-05T14:30+09:00)
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
countdown	number			Desired total seconds for countdown
precision	number		Read Only	Accuracy granularity of the exposed value

range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource

## B.19.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ClockResURI		get	post		

## B.20 Auto White Balance

### B.20.1 Introduction

This resource describes an auto balance on/off feature. The value is a boolean. An AutoWhiteBalance value of 'true' means that the switch is on. An AutoWhiteBalance value of 'false' means that the switch is off.

### B.20.2 Example URI

/AutoWhiteBalanceResURI

### B.20.3 Resource Type

The resource type (rt) is defined as: ['oic.r.colour.autowhitebalance'].

### B.20.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Auto White Balance",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \n\"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/AutoWhiteBalanceResURI" : {
      "get": {
        "description": "This resource describes an auto balance on/off feature.\nThe value is a
boolean.\nAn AutoWhiteBalance value of 'true' means that the switch is on.\nAn AutoWhiteBalance
value of 'false' means that the switch is off.\n",
```

```

17339     "parameters": [
17340       { "$ref": "#/parameters/interface" }
17341     ],
17342     "responses": {
17343       "200": {
17344         "description": "",
17345         "x-example":
17346           {
17347             "rt": ["oic.r.colour.autowhitebalance"],
17348             "id": "unique_example_id",
17349             "autoWhiteBalance": false
17350           },
17351       },
17352       "schema": { "$ref": "#/definitions/AutoWhiteBalance" }
17353     }
17354   },
17355 },
17356 "post": {
17357   "description": "",
17358   "parameters": [
17359     { "$ref": "#/parameters/interface" },
17360     {
17361       "name": "body",
17362       "in": "body",
17363       "required": true,
17364       "schema": { "$ref": "#/definitions/AutoWhiteBalance" },
17365       "x-example":
17366         {
17367           "id": "unique_example_id",
17368           "autoWhiteBalance": true
17369         }
17370     }
17371   ],
17372   "responses": {
17373     "200": {
17374       "description": "",
17375       "x-example":
17376         {
17377           "id": "unique_example_id",
17378           "autoWhiteBalance": true
17379         },
17380       "schema": { "$ref": "#/definitions/AutoWhiteBalance" }
17381     }
17382   }
17383 },
17384 },
17385 },
17386 },
17387 "parameters": {
17388   "interface": {
17389     "in": "query",
17390     "name": "if",
17391     "type": "string",
17392     "enum": ["oic.if.a", "oic.if.baseline"]
17393   }
17394 },
17395 "definitions": {
17396   "AutoWhiteBalance":
17397     {
17398       "properties": {
17399         "autoWhiteBalance": {
17400           "description": "Status of the Auto White balance",
17401           "type": "boolean"
17402         },
17403         "id": {
17404           "description": "Instance ID of this specific resource",
17405           "maxLength": 64,
17406           "readOnly": true,
17407           "type": "string"
17408         },
17409         "if": {

```

```

17410     "description": "The interface set supported by this resource",
17411     "items": {
17412         "enum": [
17413             "oic.if.baseline",
17414             "oic.if.ll",
17415             "oic.if.b",
17416             "oic.if.lb",
17417             "oic.if.rw",
17418             "oic.if.r",
17419             "oic.if.a",
17420             "oic.if.s"
17421         ],
17422         "type": "string"
17423     },
17424     "minItems": 1,
17425     "readOnly": true,
17426     "type": "array"
17427 },
17428 "n": {
17429     "description": "Friendly name of the resource",
17430     "maxLength": 64,
17431     "readOnly": true,
17432     "type": "string"
17433 },
17434 "precision": {
17435     "description": "Accuracy granularity of the exposed value",
17436     "readOnly": true,
17437     "type": "number"
17438 },
17439 "range": {
17440     "description": "The valid range for the value Property",
17441     "items": {
17442         "anyOf": [
17443             {
17444                 "type": "number"
17445             },
17446             {
17447                 "type": "integer"
17448             }
17449         ]
17450     },
17451     "maxItems": 2,
17452     "minItems": 2,
17453     "readOnly": true,
17454     "type": "array"
17455 },
17456 "rt": {
17457     "description": "Resource Type",
17458     "items": {
17459         "maxLength": 64,
17460         "type": "string"
17461     },
17462     "minItems": 1,
17463     "readOnly": true,
17464     "type": "array"
17465 },
17466 "step": {
17467     "anyOf": [
17468         {
17469             "type": "integer"
17470         },
17471         {
17472             "type": "number"
17473         }
17474     ],
17475     "description": "Step value across the defined range",
17476     "readOnly": true
17477 },
17478 "value": {
17479     "anyOf": [
17480         {

```

```

17481         "type": "array"
17482     },
17483     {
17484         "type": "string"
17485     },
17486     {
17487         "type": "boolean"
17488     },
17489     {
17490         "type": "integer"
17491     },
17492     {
17493         "type": "number"
17494     },
17495     {
17496         "type": "object"
17497     }
17498 ],
17499 "description": "The value sensed or actuated by this Resource"
17500 }
17501 },
17502 "required": [
17503     "autoWhiteBalance"
17504 ],
17505 "type": "object"
17506 }
17507 }
17508 }
17509 }
17510

```

## B.20.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
autoWhiteBalance	boolean	yes		Status of the Auto White balance
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property

## B.20.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
----------	--------	------	--------	--------	--------

/AutoWhiteBalanceResURI		get	post		
-------------------------	--	-----	------	--	--

## B.21 Colour Saturation

### B.21.1 Introduction

This resource describes a Colour saturation value. The value is an integer. A coloursaturation has a range of [0,100]. A coloursaturation value of 0 means producing black and white images. A coloursaturation value of 50 means producing device specific normal colour images. A coloursaturation value of 100 means producing device very full colour images.

### B.21.2 Example URI

/ColourSaturationResURI

### B.21.3 Resource Type

The resource type (rt) is defined as: ['oic.r.colour.saturation'].

### B.21.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Colour Saturation",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/ColourSaturationResURI" : {
      "get": {
        "description": "This resource describes a Colour saturation value.\nThe value is an
integer.\nA coloursaturation has a range of [0,100].\nA coloursaturation value of 0 means producing
black and white images.\nA coloursaturation value of 50 means producing device specific normal
colour images.\nA coloursaturation value of 100 means producing device very full colour images.\n",
        "parameters": [
          {"$ref": "#/parameters/interface"}
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.colour.saturation"],
              "id": "unique_example_id",
              "colourSaturation": 50
            }
          }
        }
      }
    }
  }
}
```

```

17573         '
17574         "schema": { "$ref": "#/definitions/Saturation" }
17575     }
17576 }
17577 },
17578 "post": {
17579     "description": "",
17580     "parameters": [
17581         { "$ref": "#/parameters/interface" },
17582         {
17583             "name": "body",
17584             "in": "body",
17585             "required": true,
17586             "schema": { "$ref": "#/definitions/Saturation" },
17587             "x-example":
17588                 {
17589                     "id": "unique_example_id",
17590                     "colourSaturation": 60
17591                 }
17592         }
17593     ],
17594     "responses": {
17595         "200": {
17596             "description": "",
17597             "x-example":
17598                 {
17599                     "id": "unique_example_id",
17600                     "colourSaturation": 60
17601                 }
17602             '
17603             "schema": { "$ref": "#/definitions/Saturation" }
17604         }
17605     }
17606 }
17607 },
17608 },
17609 "parameters": {
17610     "interface": {
17611         "in": "query",
17612         "name": "if",
17613         "type": "string",
17614         "enum": ["oic.if.a", "oic.if.baseline"]
17615     }
17616 },
17617 "definitions": {
17618     "Saturation": {
17619         {
17620             "properties": {
17621                 "colourSaturation": {
17622                     "description": "The colour saturation value",
17623                     "maximum": 100,
17624                     "minimum": 0,
17625                     "type": "integer"
17626                 },
17627                 "id": {
17628                     "description": "Instance ID of this specific resource",
17629                     "maxLength": 64,
17630                     "readOnly": true,
17631                     "type": "string"
17632                 },
17633                 "if": {
17634                     "description": "The interface set supported by this resource",
17635                     "items": {
17636                         "enum": [
17637                             "oic.if.baseline",
17638                             "oic.if.ll",
17639                             "oic.if.b",
17640                             "oic.if.lb",
17641                             "oic.if.rw",
17642                             "oic.if.r",
17643                             "oic.if.a",

```



```

17644         "oic.if.s"
17645     ],
17646     "type": "string"
17647 },
17648 "minItems": 1,
17649 "readOnly": true,
17650 "type": "array"
17651 },
17652 "n": {
17653     "description": "Friendly name of the resource",
17654     "maxLength": 64,
17655     "readOnly": true,
17656     "type": "string"
17657 },
17658 "precision": {
17659     "description": "Accuracy granularity of the exposed value",
17660     "readOnly": true,
17661     "type": "number"
17662 },
17663 "range": {
17664     "description": "The valid range for the value Property",
17665     "items": {
17666         "anyOf": [
17667             {
17668                 "type": "number"
17669             },
17670             {
17671                 "type": "integer"
17672             }
17673         ]
17674     },
17675     "maxItems": 2,
17676     "minItems": 2,
17677     "readOnly": true,
17678     "type": "array"
17679 },
17680 "rt": {
17681     "description": "Resource Type",
17682     "items": {
17683         "maxLength": 64,
17684         "type": "string"
17685     },
17686     "minItems": 1,
17687     "readOnly": true,
17688     "type": "array"
17689 },
17690 "step": {
17691     "anyOf": [
17692         {
17693             "type": "integer"
17694         },
17695         {
17696             "type": "number"
17697         }
17698     ],
17699     "description": "Step value across the defined range",
17700     "readOnly": true
17701 },
17702 "value": {
17703     "anyOf": [
17704         {
17705             "type": "array"
17706         },
17707         {
17708             "type": "string"
17709         },
17710         {
17711             "type": "boolean"
17712         },
17713         {
17714             "type": "integer"

```

```

17715         },
17716         {
17717             "type": "number"
17718         },
17719         {
17720             "type": "object"
17721         }
17722     ],
17723     "description": "The value sensed or actuated by this Resource"
17724 },
17725 },
17726 "required": [
17727     "colourSaturation"
17728 ],
17729 "type": "object"
17730 }
17731 }
17732 }
17733 }
17734

```

### 17735 B.21.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
colourSaturation	integer	yes		The colour saturation value
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource

### 17736 B.21.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ColourSaturationResURI		get	post		

## 17737 B.22 Colour Chroma

### 17738 B.22.1 Introduction

17739 This resource describes the colour using chroma conventions.  
 17740 Properties are hue, saturation, csc, and ct.  
 17741 hue is the hue angle, it is an integer value as defined by the CIECAM02 model definition (see

reference [CIE CIE159:2004]).  
 saturation is an integer value as defined by the CIECAM02 model definition (see reference [CIE CIE159:2004]).  
 maximumsaturation is the upper bound on the saturation supported by the Device.  
 If not present the maximum value for saturation is 32767.  
 csc is the colour space coordinates in CIE colour space.  
 The first item in the array is the X coordinate.  
 The second item in the array is the Y coordinate.  
 ct is the Mired colour temperature.  
 Provides the colour using chroma conventions.

## 17753 B.22.2 Example URI

17754 /example/ColourChromaResURI

## 17755 B.22.3 Resource Type

17756 The resource type (rt) is defined as: ['oic.r.colour.chroma'].

## 17757 B.22.4 Swagger2.0 Definition

```
17758 {
17759   "swagger": "2.0",
17760   "info": {
17761     "title": "Colour Chroma",
17762     "version": "v1.1.0-20160519",
17763     "license": {
17764       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
17765       "x-description": "Redistribution and use in source and binary forms, with or without
17766 modification, are permitted provided that the following conditions are met:\n      1.
17767 Redistributions of source code must retain the above copyright notice, this list of conditions and
17768 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
17769 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
17770 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
17771 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
17772 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
17773 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
17774 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
17775 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
17776 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
17777 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
17778 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
17779 OF SUCH DAMAGE.\n"
17780   },
17781 },
17782 "schemes": ["http"],
17783 "consumes": ["application/json"],
17784 "produces": ["application/json"],
17785 "paths": {
17786   "/example/ColourChromaResURI" : {
17787     "get": {
17788       "description": "This resource describes the colour using chroma conventions.\nProperties
17789 are hue, saturation, csc, and ct.\nhue is the hue angle, it is an integer value as defined by the
17790 CIECAM02 model definition (see reference [CIE CIE159:2004]).\nsaturation is an integer value as
17791 defined by the CIECAM02 model definition (see reference [CIE CIE159:2004]).\nmaximumsaturation is
17792 the upper bound on the saturation supported by the Device.\n  If not present the maximum value
17793 for saturation is 32767.\nncsc is the colour space coordinates in CIE colour space.\n  The first
17794 item in the array is the X coordinate.\n  The second item in the array is the Y coordinate.\nct is
17795 the Mired colour temperature.\nProvides the colour using chroma conventions.\n",
17796       "parameters": [
17797         {"$ref": "#/parameters/interface"}
17798       ],
17799       "responses": {
17800         "200": {
17801           "description": "",
17802           "x-example":
17803             {
17804               "rt": ["oic.r.colour.chroma"],
```

```

17805         "id": "unique_example_id",
17806         "hue": 256.0,
17807         "saturation": 212,
17808         "maximumsaturation": 1000,
17809         "csc": [0.41,0.51],
17810         "ct": 457
17811     }
17812     ,
17813     "schema": { "$ref": "#/definitions/ColourChroma" }
17814 }
17815 },
17816 },
17817 "post": {
17818     "description": "Sets current colour chroma values\n",
17819     "parameters": [
17820         { "$ref": "#/parameters/interface" },
17821         {
17822             "name": "body",
17823             "in": "body",
17824             "required": true,
17825             "schema": { "$ref": "#/definitions/ColourChroma" },
17826             "x-example":
17827                 {
17828                     "id": "unique_example_id",
17829                     "hue": 300.0,
17830                     "saturation": 212,
17831                     "csc": [0.41,0.51],
17832                     "ct": 457
17833                 }
17834         },
17835     ],
17836     "responses": {
17837         "200": {
17838             "description": "",
17839             "x-example":
17840                 {
17841                     "id": "unique_example_id",
17842                     "hue": 300.0,
17843                     "saturation": 212,
17844                     "csc": [0.41,0.51],
17845                     "ct": 467
17846                 }
17847             ,
17848             "schema": { "$ref": "#/definitions/ColourChroma" }
17849         }
17850     }
17851 },
17852 },
17853 },
17854 "parameters": {
17855     "interface": {
17856         "in": "query",
17857         "name": "if",
17858         "type": "string",
17859         "enum": ["oic.if.a", "oic.if.baseline"]
17860     }
17861 },
17862 "definitions": {
17863     "ColourChroma": {
17864         {
17865             "properties": {
17866                 "csc": {
17867                     "description": "X and Y coordinates of the colour in CIE colour space",
17868                     "items": {
17869                         "maximum": 1,
17870                         "minimum": 0,
17871                         "type": "number"
17872                     },
17873                     "maxItems": 2,
17874                     "minItems": 2,
17875                     "type": "array"

```

```

17876 },
17877 "ct": {
17878     "description": "Mired colour temperature",
17879     "minimum": 0,
17880     "type": "integer"
17881 },
17882 "hue": {
17883     "description": "Hue angle as defined by the CIECAM02 model definition",
17884     "maximum": 360,
17885     "minimum": 0,
17886     "type": "number"
17887 },
17888 "id": {
17889     "description": "Instance ID of this specific resource",
17890     "maxLength": 64,
17891     "readOnly": true,
17892     "type": "string"
17893 },
17894 "if": {
17895     "description": "The interface set supported by this resource",
17896     "items": {
17897         "enum": [
17898             "oic.if.baseline",
17899             "oic.if.ll",
17900             "oic.if.b",
17901             "oic.if.lb",
17902             "oic.if.rw",
17903             "oic.if.x",
17904             "oic.if.a",
17905             "oic.if.s"
17906         ],
17907         "type": "string"
17908     },
17909     "minItems": 1,
17910     "readOnly": true,
17911     "type": "array"
17912 },
17913 "maximumsaturation": {
17914     "description": "Maximum supported value of Saturation for this Device",
17915     "maximum": 32767,
17916     "minimum": 0,
17917     "readOnly": true,
17918     "type": "integer"
17919 },
17920 "n": {
17921     "description": "Friendly name of the resource",
17922     "maxLength": 64,
17923     "readOnly": true,
17924     "type": "string"
17925 },
17926 "precision": {
17927     "description": "Accuracy granularity of the exposed value",
17928     "readOnly": true,
17929     "type": "number"
17930 },
17931 "range": {
17932     "description": "The valid range for the value Property",
17933     "items": {
17934         "anyOf": [
17935             {
17936                 "type": "number"
17937             },
17938             {
17939                 "type": "integer"
17940             }
17941         ]
17942     },
17943     "maxItems": 2,
17944     "minItems": 2,
17945     "readOnly": true,
17946     "type": "array"

```

```

17947     },
17948     "rt": {
17949         "description": "Resource Type",
17950         "items": {
17951             "maxLength": 64,
17952             "type": "string"
17953         },
17954         "minItems": 1,
17955         "readOnly": true,
17956         "type": "array"
17957     },
17958     "saturation": {
17959         "description": "Saturation as defined by the CIECAM02 model definition",
17960         "maximum": 32767,
17961         "minimum": 0,
17962         "type": "integer"
17963     },
17964     "step": {
17965         "anyOf": [
17966             {
17967                 "type": "integer"
17968             },
17969             {
17970                 "type": "number"
17971             }
17972         ],
17973         "description": "Step value across the defined range",
17974         "readOnly": true
17975     },
17976     "value": {
17977         "anyOf": [
17978             {
17979                 "type": "array"
17980             },
17981             {
17982                 "type": "string"
17983             },
17984             {
17985                 "type": "boolean"
17986             },
17987             {
17988                 "type": "integer"
17989             },
17990             {
17991                 "type": "number"
17992             },
17993             {
17994                 "type": "object"
17995             }
17996         ],
17997         "description": "The value sensed or actuated by this Resource"
17998     }
17999 },
18000 "required": [
18001     "hue",
18002     "saturation",
18003     "csc"
18004 ],
18005 "type": "object"
18006 }
18007 }
18008 }
18009 }
18010

```

### B.22.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type

ct	integer			Mired colour temperature
hue	number	yes		Hue angle as defined by the CIECAM02 model definition
value	multiple types: see schema			The value sensed or actuated by this Resource
csc	array: see schema	yes		X and Y coordinates of the colour in CIE colour space
n	string		Read Only	Friendly name of the resource
maximumsaturation	integer		Read Only	Maximum supported value of Saturation for this Device
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
saturation	integer	yes		Saturation as defined by the CIECAM02 model definition

## 18012 B.22.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/example/ColourChromaResURI		get	post		

## 18013 B.23 Colour RGB

### 18014 B.23.1 Introduction

18015 This resource specifies the actual colour in the RGB space represented as an array of integers.  
18016 Each colour value is described with a Red, Green, Blue component.  
18017 These colour values are encoded as an array of integer values ([R,G,B]).  
18018 The minimum and maximum colour value per component may be described by range (from  
18019 oic.r.baseresource).  
18020 When range (from oic.r.baseresource) is omitted, then the range is [0,255].  
18021 Retrieves the current colour in RGB.

18022 Value is an array of integer values in the order R,G,B.  
18023

## 18024 B.23.2 Example URI

18025 /ColourRGBResURI

## 18026 B.23.3 Resource Type

18027 The resource type (rt) is defined as: ['oic.r.colour.rgb'].

## 18028 B.23.4 Swagger2.0 Definition

```
18029 {  
18030   "swagger": "2.0",  
18031   "info": {  
18032     "title": "Colour RGB",  
18033     "version": "v1.1.0-20160519",  
18034     "license": {  
18035       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
18036       "x-description": "Redistribution and use in source and binary forms, with or without  
18037 modification, are permitted provided that the following conditions are met:\n      1.  
18038 Redistributions of source code must retain the above copyright notice, this list of conditions and  
18039 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
18040 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
18041 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open  
18042 Connectivity Foundation, INC. \n      \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
18043 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
18044 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity  
18045 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
18046 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
18047 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND  
18048 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
18049 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
18050 OF SUCH DAMAGE.\n    \"  
18051   },  
18052 },  
18053   "schemes": ["http"],  
18054   "consumes": ["application/json"],  
18055   "produces": ["application/json"],  
18056   "paths": {  
18057     "/ColourRGBResURI" : {  
18058       "get": {  
18059         "description": "This resource specifies the actual colour in the RGB space represented as  
18060 an array of integers.\nEach colour value is described with a Red, Green, Blue component.\nThese  
18061 colour values are encoded as an array of integer values ([R,G,B]).\nThe minimum and maximum colour  
18062 value per component may be described by range (from oic.r.baseresource).\nWhen range (from  
18063 oic.r.baseresource) is omitted, then the range is [0,255].\nRetrieves the current colour in  
18064 RGB.\nValue is an array of integer values in the order R,G,B.\n",  
18065         "parameters": [  
18066           { "$ref": "#/parameters/interface" }  
18067         ],  
18068         "responses": {  
18069           "200": {  
18070             "description": "",  
18071             "x-example":  
18072               {  
18073                 "rt": ["oic.r.colour.rgb"],  
18074                 "id": "unique_example_id",  
18075                 "rgbValue": [255,255,255],  
18076                 "range": [0,255]  
18077               }  
18078             ,  
18079             "schema": { "$ref": "#/definitions/ColourRGB" }  
18080           }  
18081         }  
18082       },  
18083       "post": {  
18084         "description": "Sets the current colourRGB value\n",  
18085         "parameters": [  
18086           { "$ref": "#/parameters/interface" },  
18087         ]  
18088       }  
18089     }  
18090   }  
18091 }
```



```

18088         "name": "body",
18089         "in": "body",
18090         "required": true,
18091         "schema": { "$ref": "#/definitions/ColourRGB" },
18092         "x-example":
18093             {
18094                 "id": "unique_example_id",
18095                 "rgbValue": [255,0,0]
18096             }
18097     },
18098 ],
18099     "responses": {
18100         "200": {
18101             "description": "",
18102             "x-example":
18103                 {
18104                     "id": "unique_example_id",
18105                     "rgbValue": [255,0,0]
18106                 }
18107             ,
18108             "schema": { "$ref": "#/definitions/ColourRGB" }
18109         }
18110     }
18111 },
18112 },
18113 },
18114 "parameters": {
18115     "interface" : {
18116         "in" : "query",
18117         "name" : "if",
18118         "type" : "string",
18119         "enum" : ["oic.if.a", "oic.if.baseline"]
18120     }
18121 },
18122 "definitions": {
18123     "ColourRGB" :
18124         {
18125             "properties": {
18126                 "id": {
18127                     "description": "Instance ID of this specific resource",
18128                     "maxLength": 64,
18129                     "readOnly": true,
18130                     "type": "string"
18131                 },
18132                 "if": {
18133                     "description": "The interface set supported by this resource",
18134                     "items": {
18135                         "enum": [
18136                             "oic.if.baseline",
18137                             "oic.if.ll",
18138                             "oic.if.b",
18139                             "oic.if.lb",
18140                             "oic.if.rw",
18141                             "oic.if.r",
18142                             "oic.if.a",
18143                             "oic.if.s"
18144                         ],
18145                         "type": "string"
18146                     },
18147                     "minItems": 1,
18148                     "readOnly": true,
18149                     "type": "array"
18150                 },
18151                 "n": {
18152                     "description": "Friendly name of the resource",
18153                     "maxLength": 64,
18154                     "readOnly": true,
18155                     "type": "string"
18156                 },
18157                 "precision": {
18158                     "description": "Accuracy granularity of the exposed value",

```

```

18159         "readOnly": true,
18160         "type": "number"
18161     },
18162     "range": {
18163         "description": "The valid range for the value Property",
18164         "items": {
18165             "anyOf": [
18166                 {
18167                     "type": "number"
18168                 },
18169                 {
18170                     "type": "integer"
18171                 }
18172             ]
18173         },
18174         "maxItems": 2,
18175         "minItems": 2,
18176         "readOnly": true,
18177         "type": "array"
18178     },
18179     "rgbValue": {
18180         "description": "RGB value; the first item is the R, second the G, third the B.",
18181         "items": {
18182             "type": "integer"
18183         },
18184         "maxItems": 3,
18185         "minItems": 3,
18186         "type": "array"
18187     },
18188     "rt": {
18189         "description": "Resource Type",
18190         "items": {
18191             "maxLength": 64,
18192             "type": "string"
18193         },
18194         "minItems": 1,
18195         "readOnly": true,
18196         "type": "array"
18197     },
18198     "step": {
18199         "anyOf": [
18200             {
18201                 "type": "integer"
18202             },
18203             {
18204                 "type": "number"
18205             }
18206         ],
18207         "description": "Step value across the defined range",
18208         "readOnly": true
18209     },
18210     "value": {
18211         "anyOf": [
18212             {
18213                 "type": "array"
18214             },
18215             {
18216                 "type": "string"
18217             },
18218             {
18219                 "type": "boolean"
18220             },
18221             {
18222                 "type": "integer"
18223             },
18224             {
18225                 "type": "number"
18226             },
18227             {
18228                 "type": "object"
18229             }

```

```

18230         ],
18231         "description": "The value sensed or actuated by this Resource"
18232     }
18233 },
18234 "required": [
18235     "rgbValue"
18236 ],
18237 "type": "object"
18238 }
18239 }
18240 }
18241 }
18242

```

### B.23.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
rgbValue	array: see schema	yes		RGB value; the first item is the R, second the G, third the B.
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource

### B.23.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ColourRGBResURI		get	post		

## B.24 Consumable

### B.24.1 Introduction

This resource specifies a thing that can be consumed such as filter material, printer toner etc

The type is an enumeration defining the thing being consumed as defined by the Smart Home Device Specification

The remaining is an integer capturing the percentatge remaining life

The orderpercentage is an integer capturing the percentage life at which replacement or replenishment is recommended by the manufacturer

The url is a string containing a URL at which further information may be obtained with respect to

the consumable

## B.24.2 Example URI

/ConsumableResURI

## B.24.3 Resource Type

The resource type (rt) is defined as: ['oic.r.consumable'].

## B.24.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Consumable",
    "version": "OCF-v1.0.0-20160620",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/ConsumableResURI" : {
      "get": {
        "description": "This resource specifies a thing that can be consumed such as filter
material, printer toner etc\nThe type is an enumeration defining the thing being consumed as
defined by the Smart Home Device Specification\nThe remaining is an integer capturing the
percentatge remaining life\nThe orderpercentage is an integer capturing the percentage life at
which replacement or replenishment is recommended by the manufacturer\nThe url is a string
containing a URL at which further information may be obtained with respect to the consumable\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.consumable"],
              "id": "unique_example_id",
              "typeofconsumable": "tonerBlack",
              "remaining": 20,
              "orderpercentage": 10,
              "url": "http://myreorderURL"
            }
          },
          "schema": { "$ref": "#/definitions/consumable" }
        }
      }
    }
  },
  "parameters": {
```

```

18320     "interface" : {
18321         "in" : "query",
18322         "name" : "if",
18323         "type" : "string",
18324         "enum" : ["oic.if.s", "oic.if.baseline"]
18325     }
18326 },
18327 "definitions": {
18328     "consumable" :
18329     {
18330         "properties": {
18331             "id": {
18332                 "description": "Instance ID of this specific resource",
18333                 "maxLength": 64,
18334                 "readOnly": true,
18335                 "type": "string"
18336             },
18337             "if": {
18338                 "description": "The interface set supported by this resource",
18339                 "items": {
18340                     "enum": [
18341                         "oic.if.baseline",
18342                         "oic.if.ll",
18343                         "oic.if.b",
18344                         "oic.if.lb",
18345                         "oic.if.rw",
18346                         "oic.if.r",
18347                         "oic.if.a",
18348                         "oic.if.s"
18349                     ],
18350                     "type": "string"
18351                 },
18352                 "minItems": 1,
18353                 "readOnly": true,
18354                 "type": "array"
18355             },
18356             "n": {
18357                 "description": "Friendly name of the resource",
18358                 "maxLength": 64,
18359                 "readOnly": true,
18360                 "type": "string"
18361             },
18362             "orderpercentage": {
18363                 "description": "Percentage at which re-ordering is recommended by the manufacturer",
18364                 "maximum": 100,
18365                 "minimum": 0,
18366                 "readOnly": true,
18367                 "type": "integer"
18368             },
18369             "precision": {
18370                 "description": "Accuracy granularity of the exposed value",
18371                 "readOnly": true,
18372                 "type": "number"
18373             },
18374             "range": {
18375                 "description": "The valid range for the value Property",
18376                 "items": {
18377                     "anyOf": [
18378                         {
18379                             "type": "number"
18380                         },
18381                         {
18382                             "type": "integer"
18383                         }
18384                     ]
18385                 },
18386                 "maxItems": 2,
18387                 "minItems": 2,
18388                 "readOnly": true,
18389                 "type": "array"
18390             },

```

```

18391     "remaining": {
18392         "description": "Percentage remaining lifespan.",
18393         "maximum": 100,
18394         "minimum": 0,
18395         "readOnly": true,
18396         "type": "integer"
18397     },
18398     "rt": {
18399         "description": "Resource Type",
18400         "items": {
18401             "maxLength": 64,
18402             "type": "string"
18403         },
18404         "minItems": 1,
18405         "readOnly": true,
18406         "type": "array"
18407     },
18408     "step": {
18409         "anyOf": [
18410             {
18411                 "type": "integer"
18412             },
18413             {
18414                 "type": "number"
18415             }
18416         ],
18417         "description": "Step value across the defined range",
18418         "readOnly": true
18419     },
18420     "typeofconsumable": {
18421         "description": "Thing that is being consumed.",
18422         "readOnly": true,
18423         "type": "string"
18424     },
18425     "url": {
18426         "description": "URL at which additional ordering information may be found.",
18427         "format": "uri",
18428         "readOnly": true,
18429         "type": "string"
18430     },
18431     "value": {
18432         "anyOf": [
18433             {
18434                 "type": "array"
18435             },
18436             {
18437                 "type": "string"
18438             },
18439             {
18440                 "type": "boolean"
18441             },
18442             {
18443                 "type": "integer"
18444             },
18445             {
18446                 "type": "number"
18447             },
18448             {
18449                 "type": "object"
18450             }
18451         ],
18452         "description": "The value sensed or actuated by this Resource"
18453     }
18454 },
18455 "required": [
18456     "typeofconsumable",
18457     "remaining"
18458 ],
18459 "type": "object"
18460 }
18461

```

18462 }  
 18463 }  
 18464 }

18465 **B.24.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property
remaining	integer	yes	Read Only	Percentage remaining lifespan.
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
typeofconsumable	string	yes	Read Only	Thing that is being consumed.
orderpercentage	integer		Read Only	Percentage at which re-ordering is recommended by the manufacturer
n	string		Read Only	Friendly name of the resource
url	string		Read Only	URL at which additional ordering information may be found.

18466 **B.24.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/ConsumableResURI		get			

18467 **B.25 Consumables**

18468 **B.25.1 Introduction**

18469 This resource specifies things that can be consumed such as filter material, printer toner etc  
 18470 The resource is a collection of instances of oic.r.consumable detailing the individual consumed  
 18471 items

supportedconsumables is the set of consumable types that this instance of the Resource supports

## B.25.2 Example URI

/ConsumablesBaselineResURI

## B.25.3 Resource Type

The resource type (rt) is defined as: ['oic.r.consumablecollection', 'oic.wk.col'].

## B.25.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Consumables",
    "version": "OCF-v1.0.0-20160620",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/ConsumablesLLResURI" : {
      "get": {
        "description": "This resource specifies things that can be consumed such as filter
material, printer toner etc\nThe resource is a collection of instances of oic.r.consumable
detailing the individual consumed items\nsupportedconsumables is the set of consumable types that
this instance of the Resource supports\n",
        "parameters": [
          { "$ref": "#/parameters/interface-11" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": [
              {
                "href": "/myTonerBlackResURI", "rt": ["oic.r.consumable"], "if":
["oic.if.s", "oic.if.baseline"], "eps": [{ "ep": "coaps://[fe80::b1d6]:1122" } ] },
                { "href": "/myTonerCyanResURI", "rt": ["oic.r.consumable"], "if":
["oic.if.s", "oic.if.baseline"], "eps": [{ "ep": "coaps://[fe80::b1d6]:1122" } ] },
                { "href": "/myTonerMagentaResURI", "rt": ["oic.r.consumable"], "if":
["oic.if.s", "oic.if.baseline"], "eps": [{ "ep": "coaps://[fe80::b1d6]:1122" } ] },
                { "href": "/myTonerYellowResURI", "rt": ["oic.r.consumable"], "if":
["oic.if.s", "oic.if.baseline"], "eps": [{ "ep": "coaps://[fe80::b1d6]:1122" } ] }
            ]
          }
        },
        "schema": { "$ref": "#/definitions/consumables-11" }
      }
    }
  },
  "/ConsumablesBaselineResURI" : {
    "get": {
```



```

18538         "description": "This resource specifies things that can be consumed such as filter
18539 material, printer toner etc\nThe resource is a collection of instances of oic.r.consumable
18540 detailing the individual consumed items\nsupportedconsumables is the set of consumable types that
18541 this instance of the Resource supports\n",
18542         "parameters": [
18543             { "$ref": "#/parameters/interface-baseline" }
18544         ],
18545         "responses": {
18546             "200": {
18547                 "description": "",
18548                 "x-example":
18549                     {
18550                         "rt": ["oic.r.consumablecollection", "oic.wk.col"],
18551                         "id": "unique_example_id",
18552                         "rts": ["oic.r.consumable", "oic.r.value.conditional"],
18553                         "supportedconsumables": ["tonerBlack", "tonerCyan", "tonerMagenta", "tonerYellow"],
18554                         "links": [
18555                             { "href": "/myTonerBlackResURI", "rt": ["oic.r.consumable"], "if":
18556 ["oic.if.s", "oic.if.baseline"], "eps": [{ "ep": "coaps://[fe80::bld6]:1122" } ] },
18557                             { "href": "/myTonerCyanResURI", "rt": ["oic.r.consumable"], "if":
18558 ["oic.if.s", "oic.if.baseline"], "eps": [{ "ep": "coaps://[fe80::bld6]:1122" } ] },
18559                             { "href": "/myTonerMagentaResURI", "rt": ["oic.r.consumable"], "if":
18560 ["oic.if.s", "oic.if.baseline"], "eps": [{ "ep": "coaps://[fe80::bld6]:1122" } ] },
18561                             { "href": "/myTonerYellowResURI", "rt": ["oic.r.consumable"], "if":
18562 ["oic.if.s", "oic.if.baseline"], "eps": [{ "ep": "coaps://[fe80::bld6]:1122" } ] }
18563                         ]
18564                     },
18565             },
18566             "schema": { "$ref": "#/definitions/consumables" }
18567         }
18568     }
18569 }
18570 }
18571 },
18572 "parameters": {
18573     "interface-ll" : {
18574         "in" : "query",
18575         "name" : "if",
18576         "type" : "string",
18577         "enum" : ["oic.if.ll"]
18578     },
18579     "interface-baseline" : {
18580         "in" : "query",
18581         "name" : "if",
18582         "type" : "string",
18583         "enum" : ["oic.if.baseline"]
18584     },
18585     "interface-all" : {
18586         "in" : "query",
18587         "name" : "if",
18588         "type" : "string",
18589         "enum" : ["oic.if.ll", "oic.if.baseline"]
18590     }
18591 },
18592 "definitions": {
18593     "consumables-ll" :
18594         {
18595             "description": "All forms of links in a collection",
18596             "oneOf": [
18597                 {
18598                     "description": "A set (array) of simple or individual OIC Links. In addition to
18599 properties required for an OIC Link, the identifier for that link in this set is also required",
18600                     "items": {
18601                         "properties": {
18602                             "anchor": {
18603                                 "description": "This is used to override the context URI e.g. override the URI of
18604 the containing collection",
18605                                 "format": "uri",
18606                                 "maxLength": 256,
18607                                 "type": "string"
18608                             },

```

```

18609         "di": {
18610             "description": "Unique identifier for device (UUID)",
18611             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-
18612 F0-9]{12}$",
18613             "type": "string"
18614         },
18615         "eps": {
18616             "description": "the Endpoint information of the target Resource",
18617             "items": {
18618                 "properties": {
18619                     "ep": {
18620                         "description": "URI with Transport Protocol Suites + Endpoint Locator as
18621 specified in 10.2.1",
18622                         "format": "uri",
18623                         "type": "string"
18624                     },
18625                     "pri": {
18626                         "description": "The priority among multiple Endpoints as specified in
18627 10.2.3",
18628                         "minimum": 1,
18629                         "type": "integer"
18630                     }
18631                 },
18632                 "type": "object"
18633             },
18634             "type": "array"
18635         },
18636         "href": {
18637             "description": "This is the target URI, it can be specified as a Relative
18638 Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to
18639 make it unique.",
18640             "format": "uri",
18641             "maxLength": 256,
18642             "type": "string"
18643         },
18644         "if": {
18645             "description": "The interface set supported by this resource",
18646             "items": {
18647                 "enum": [
18648                     "oic.if.baseline",
18649                     "oic.if.ll",
18650                     "oic.if.b",
18651                     "oic.if.rw",
18652                     "oic.if.r",
18653                     "oic.if.a",
18654                     "oic.if.s"
18655                 ],
18656                 "type": "string"
18657             },
18658             "minItems": 1,
18659             "type": "array"
18660         },
18661         "ins": {
18662             "description": "The instance identifier for this web link in an array of web
18663 links - used in collections",
18664             "oneOf": [
18665                 {
18666                     "description": "An ordinal number that is not repeated - must be unique in
18667 the collection context",
18668                     "type": "integer"
18669                 },
18670                 {
18671                     "description": "Any unique string including a URI",
18672                     "format": "uri",
18673                     "maxLength": 256,
18674                     "type": "string"
18675                 },
18676                 {
18677                     "description": "Unique identifier (UUID)",
18678                     "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-
18679 fA-F0-9]{12}$",

```

```

18680         "type": "string"
18681     }
18682 ]
18683 },
18684 "p": {
18685     "description": "Specifies the framework policies on the Resource referenced by
the target URI",
18686     "properties": {
18687         "bm": {
18688             "description": "Specifies the framework policies on the Resource referenced
by the target URI for e.g. observable and discoverable",
18689             "type": "integer"
18690         }
18691     },
18692     "required": [
18693         "bm"
18694     ],
18695     "type": "object"
18696 },
18697 "rel": {
18698     "description": "The relation of the target URI referenced by the link to the
context URI",
18699     "oneOf": [
18700         {
18701             "default": [
18702                 "hosts"
18703             ],
18704             "items": {
18705                 "maxLength": 64,
18706                 "type": "string"
18707             },
18708             "minItems": 1,
18709             "type": "array"
18710         },
18711         {
18712             "default": "hosts",
18713             "maxLength": 64,
18714             "type": "string"
18715         }
18716     ],
18717     "type": "array"
18718 },
18719 "rt": {
18720     "description": "Resource Type",
18721     "items": {
18722         "maxLength": 64,
18723         "type": "string"
18724     },
18725     "minItems": 1,
18726     "type": "array"
18727 },
18728 "title": {
18729     "description": "A title for the link relation. Can be used by the UI to provide a
context",
18730     "maxLength": 64,
18731     "type": "string"
18732 },
18733 "type": {
18734     "default": "application/cbor",
18735     "description": "A hint at the representation of the resource referenced by the
target URI. This represents the media types that are used for both accepting and emitting",
18736     "items": {
18737         "maxLength": 64,
18738         "type": "string"
18739     },
18740     "minItems": 1,
18741     "type": "array"
18742 },
18743 "required": [
18744     "href",
18745     "rt",
18746 ]
18747 },
18748 "required": [
18749     "href",
18750     "rt",

```

```

18751         "if"
18752     ],
18753     "type": "object"
18754 },
18755     "type": "array"
18756 }
18757 ]
18758 }
18759
18760 ,
18761 "consumables" :
18762 {
18763     "description": "A collection is a set (array) of tagged-link or set (array) of simple links
18764 along with additional properties to describe the collection itself",
18765     "properties": {
18766         "di": {
18767             "description": "The device ID which is an UUIDv4 string; used for backward
18768 compatibility with Spec A definition of /oic/res",
18769             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
18770 9]{12}$",
18771             "type": "string"
18772         },
18773         "drel": {
18774             "description": "When specified this is the default relationship to use when an OIC Link
18775 does not specify an explicit relationship with *rel* parameter",
18776             "type": "string"
18777         },
18778         "id": {
18779             "anyOf": [
18780                 {
18781                     "description": "A number that is unique to that collection; like an ordinal number
18782 that is not repeated",
18783                     "type": "integer"
18784                 },
18785                 {
18786                     "description": "A unique string that could be a hash or similarly unique",
18787                     "type": "string"
18788                 },
18789                 {
18790                     "description": "A unique string that could be a UUIDv4",
18791                     "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
18792 9]{12}$",
18793                     "type": "string"
18794                 }
18795             ],
18796             "description": "ID for the collection. Can be an value that is unique to the use
18797 context or a UUIDv4"
18798         },
18799         "links": {
18800             "description": "All forms of links in a collection",
18801             "oneOf": [
18802                 {
18803                     "description": "A set (array) of simple or individual OIC Links. In addition to
18804 properties required for an OIC Link, the identifier for that link in this set is also required",
18805                     "items": {
18806                         "properties": {
18807                             "anchor": {
18808                                 "description": "This is used to override the context URI e.g. override the
18809 URI of the containing collection",
18810                                 "format": "uri",
18811                                 "maxLength": 256,
18812                                 "type": "string"
18813                             },
18814                             "di": {
18815                                 "description": "Unique identifier for device (UUID)",
18816                                 "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-
18817 fA-F0-9]{12}$",
18818                                 "type": "string"
18819                             },
18820                             "eps": {
18821                                 "description": "the Endpoint information of the target Resource",

```

```

18822         "items": {
18823             "properties": {
18824                 "ep": {
18825                     "description": "URI with Transport Protocol Suites + Endpoint Locator
18826 as specified in 10.2.1",
18827                     "format": "uri",
18828                     "type": "string"
18829                 },
18830                 "pri": {
18831                     "description": "The priority among multiple Endpoints as specified in
18832 10.2.3",
18833                     "minimum": 1,
18834                     "type": "integer"
18835                 }
18836             },
18837             "type": "object"
18838         },
18839         "type": "array"
18840     },
18841     "href": {
18842         "description": "This is the target URI, it can be specified as a Relative
18843 Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to
18844 make it unique.",
18845         "format": "uri",
18846         "maxLength": 256,
18847         "type": "string"
18848     },
18849     "if": {
18850         "description": "The interface set supported by this resource",
18851         "items": {
18852             "enum": [
18853                 "oic.if.baseline",
18854                 "oic.if.ll",
18855                 "oic.if.b",
18856                 "oic.if.rw",
18857                 "oic.if.r",
18858                 "oic.if.a",
18859                 "oic.if.s"
18860             ],
18861             "type": "string"
18862         },
18863         "minItems": 1,
18864         "type": "array"
18865     },
18866     "ins": {
18867         "description": "The instance identifier for this web link in an array of web
18868 links - used in collections",
18869         "oneOf": [
18870             {
18871                 "description": "An ordinal number that is not repeated - must be unique
18872 in the collection context",
18873                 "type": "integer"
18874             },
18875             {
18876                 "description": "Any unique string including a URI",
18877                 "format": "uri",
18878                 "maxLength": 256,
18879                 "type": "string"
18880             },
18881             {
18882                 "description": "Unique identifier (UUID)",
18883                 "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-
18884 [a-fA-F0-9]{12}$",
18885                 "type": "string"
18886             }
18887         ]
18888     },
18889     "p": {
18890         "description": "Specifies the framework policies on the Resource referenced
18891 by the target URI",
18892         "properties": {

```

```

18893         "bm": {
18894             "description": "Specifies the framework policies on the Resource
18895 referenced by the target URI for e.g. observable and discoverable",
18896             "type": "integer"
18897         }
18898     },
18899     "required": [
18900         "bm"
18901     ],
18902     "type": "object"
18903 },
18904 "rel": {
18905     "description": "The relation of the target URI referenced by the link to the
18906 context URI",
18907     "oneOf": [
18908         {
18909             "default": [
18910                 "hosts"
18911             ],
18912             "items": {
18913                 "maxLength": 64,
18914                 "type": "string"
18915             },
18916             "minItems": 1,
18917             "type": "array"
18918         },
18919         {
18920             "default": "hosts",
18921             "maxLength": 64,
18922             "type": "string"
18923         }
18924     ]
18925 },
18926 "rt": {
18927     "description": "Resource Type",
18928     "items": {
18929         "maxLength": 64,
18930         "type": "string"
18931     },
18932     "minItems": 1,
18933     "type": "array"
18934 },
18935 "title": {
18936     "description": "A title for the link relation. Can be used by the UI to
18937 provide a context",
18938     "maxLength": 64,
18939     "type": "string"
18940 },
18941 "type": {
18942     "default": "application/cbor",
18943     "description": "A hint at the representation of the resource referenced by
18944 the target URI. This represents the media types that are used for both accepting and emitting",
18945     "items": {
18946         "maxLength": 64,
18947         "type": "string"
18948     },
18949     "minItems": 1,
18950     "type": "array"
18951 }
18952 },
18953 "required": [
18954     "href",
18955     "rt",
18956     "if"
18957 ],
18958 "type": "object"
18959 },
18960 "type": "array"
18961 }
18962 ]
18963 },

```

```

18964     "rt": {
18965         "items": {
18966             "enum": [
18967                 "oic.r.consumablecollection",
18968                 "oic.wk.col"
18969             ]
18970         },
18971         "maxItems": 2,
18972         "minItems": 2,
18973         "type": "array",
18974         "uniqueItems": true
18975     },
18976     "rts": {
18977         "description": "Defines the list of allowable resource types (for Target and anchors)
18978 in links included in the collection; new links being created can only be from this list",
18979         "items": {
18980             "anyOf": [
18981                 {
18982                     "enum": [
18983                         "oic.r.consumable",
18984                         "oic.r.value.conditional"
18985                     ]
18986                 },
18987                 {
18988                     "enum": [
18989                         "oic.r.consumable"
18990                     ]
18991                 }
18992             ],
18993             "maxLength": 64,
18994             "type": "string"
18995         },
18996         "maxItems": 2,
18997         "minItems": 1,
18998         "readOnly": true,
18999         "type": "array",
19000         "uniqueItems": true
19001     },
19002     "supportedconsumables": {
19003         "description": "Array of possible consumables the device measures.",
19004         "items": {
19005             "type": "string"
19006         },
19007         "readOnly": true,
19008         "type": "array"
19009     }
19010 },
19011 "type": "object"
19012 }
19013 }
19014 }
19015 }
19016

```

## B.25.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
ins	multiple types: see schema			The instance identifier for this web link in an array of web links - used in collections
rt	array: see schema	yes		Resource Type
rel	multiple types: see schema			The relation of the target URI referenced by

				the link to the context URI
if	array: see schema	yes		The interface set supported by this resource
p	object: see schema			Specifies the framework policies on the Resource referenced by the target URI
type	array: see schema			A hint at the representation of the resource referenced by the target URI. This represents the media types that are used for both accepting and emitting
anchor	string			This is used to override the context URI e.g. override the URI of the containing collection
eps	array: see schema			the Endpoint information of the target Resource
title	string			A title for the link relation. Can be used by the UI to provide a context
di	string			Unique identifier for device (UUID)
href	string	yes		This is the target URI, it can be specified as a Relative Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to make it unique.
links	multiple types: see schema			All forms of links in a collection
rt	array: see schema	yes		



rts	array: see schema		Read Only	Defines the list of allowable resource types (for Target and anchors) in links included in the collection; new links being created can only be from this list
id	multiple types: see schema			ID for the collection. Can be an value that is unique to the use context or a UUIDv4
supportedconsumables	array: see schema		Read Only	Array of possible consumables the device measures.
drel	string			When specified this is the default relationship to use when an OIC Link does not specify an explicit relationship with *rel* parameter
di	string			The device ID which is an UUIDv4 string; used for backward compatibility with Spec A definition of /oic/res

## 19018 B.25.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ConsumablesBaselineResURI		get			

## 19019 B.26 Contact Sensor

### 19020 B.26.1 Introduction

19021 This resource describes whether a contact sensor has been tripped or not.  
19022 Typical use case is in Security Systems detecting window or door open.  
19023 The value is a boolean.  
19024 A value of 'true' means that contact has been broken (open).  
19025 A value of 'false' means that contact is in place (closed).  
19026

## B.26.2 Example URI

/ContactResURI

## B.26.3 Resource Type

The resource type (rt) is defined as: ['oic.r.sensor.contact'].

## B.26.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Contact Sensor",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/ContactResURI" : {
      "get": {
        "description": "This resource describes whether a contact sensor has been tripped or
not.\nTypical use case is in Security Systems detecting window or door open.\nThe value is a
boolean.\nA value of 'true' means that contact has been broken (open).\nA value of 'false' means
that contact is in place (closed).\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.sensor.contact"],
              "id": "unique_example_id",
              "value": true
            },
            "schema": { "$ref": "#/definitions/Contact" }
          }
        }
      }
    }
  },
  "parameters": {
    "interface" : {
      "in" : "query",
      "name" : "if",
      "type" : "string",
      "enum" : ["oic.if.s", "oic.if.baseline"]
    }
  },
  "definitions": {
```

```

19094 "Contact" :
19095 {
19096   "properties": {
19097     "id": {
19098       "description": "Instance ID of this specific resource",
19099       "maxLength": 64,
19100       "readOnly": true,
19101       "type": "string"
19102     },
19103     "if": {
19104       "description": "The interface set supported by this resource",
19105       "items": {
19106         "enum": [
19107           "oic.if.baseline",
19108           "oic.if.ll",
19109           "oic.if.b",
19110           "oic.if.lb",
19111           "oic.if.rw",
19112           "oic.if.r",
19113           "oic.if.a",
19114           "oic.if.s"
19115         ],
19116         "type": "string"
19117       },
19118       "minItems": 1,
19119       "readOnly": true,
19120       "type": "array"
19121     },
19122     "n": {
19123       "description": "Friendly name of the resource",
19124       "maxLength": 64,
19125       "readOnly": true,
19126       "type": "string"
19127     },
19128     "precision": {
19129       "description": "Accuracy granularity of the exposed value",
19130       "readOnly": true,
19131       "type": "number"
19132     },
19133     "range": {
19134       "description": "The valid range for the value Property",
19135       "items": {
19136         "anyOf": [
19137           {
19138             "type": "number"
19139           },
19140           {
19141             "type": "integer"
19142           }
19143         ]
19144       },
19145       "maxItems": 2,
19146       "minItems": 2,
19147       "readOnly": true,
19148       "type": "array"
19149     },
19150     "rt": {
19151       "description": "Resource Type",
19152       "items": {
19153         "maxLength": 64,
19154         "type": "string"
19155       },
19156       "minItems": 1,
19157       "readOnly": true,
19158       "type": "array"
19159     },
19160     "step": {
19161       "anyOf": [
19162         {
19163           "type": "integer"
19164         },

```

```

19165         {
19166             "type": "number"
19167         }
19168     ],
19169     "description": "Step value across the defined range",
19170     "readOnly": true
19171 },
19172     "value": {
19173         "description": "true = sensed, false = not sensed.",
19174         "readOnly": true,
19175         "type": "boolean"
19176     }
19177 },
19178     "required": [
19179         "value"
19180     ],
19181     "type": "object"
19182 }
19183 }
19184 }
19185 }
19186

```

## 19187 B.26.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
n	string		Read Only	Friendly name of the resource
range	array: see schema		Read Only	The valid range for the value Property
value	boolean	yes	Read Only	true = sensed, false = not sensed.
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource

## 19188 B.26.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ContactResURI		get			

## 19189 B.27 Delay Defrost

### 19190 B.27.1 Introduction

19191 This resource describes the delay defrost function as defined by the US Energy Star Specifications.  
19192 See Energy Star Refrigerator Requirements Version 5 Section 4)G  
19193 (<https://www.energystar.gov/sites/default/files/specs//private/ENERGY%20STAR%20Final%20Version%205.0%20Residential%20Refrigerators%20and%20Freezers%20Program%20Requirements.pdf>)  
19194  
19195

The status is a boolean indicating whether the function is on, if off then defrost is scheduled as part of normal device operation. startTime, from oir.r.time.period (mandatory) is an ISO8601 encoded start time for the interval in which defrost shall not occur. stopTime, from oic.r.time.period is an ISO8601 encoded stop time for the interval in which defrost shall not occur. interval, from oic.r.time.period with additional range restrictions is the time in minutes of the period that starts at starttime (if not present the default is 240). stopTime and interval are mutually exclusive; they cannot both be present in a Resource instance. Retrieves the current Delay Defrost function status

## 19207 B.27.2 Example URI

19208 /DelayDefrostResURI

## 19209 B.27.3 Resource Type

19210 The resource type (rt) is defined as: ['oic.r.delaydefrost'].

## 19211 B.27.4 Swagger2.0 Definition

```
19212 {
19213   "swagger": "2.0",
19214   "info": {
19215     "title": "Delay Defrost",
19216     "version": "OCF_v1.0.0-2016____",
19217     "license": {
19218       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
19219       "x-description": "Redistribution and use in source and binary forms, with or without
19220 modification, are permitted provided that the following conditions are met:\n      1.
19221 Redistributions of source code must retain the above copyright notice, this list of conditions and
19222 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
19223 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
19224 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
19225 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
19226 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
19227 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
19228 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
19229 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
19230 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
19231 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
19232 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
19233 OF SUCH DAMAGE.\n"
19234   },
19235 },
19236 "schemes": ["http"],
19237 "consumes": ["application/json"],
19238 "produces": ["application/json"],
19239 "paths": {
19240   "/DelayDefrostResURI" : {
19241     "get": {
19242       "description": "This resource describes the delay defrost function as defined by the US
19243 Energy Star Specifications.\nSee Energy Star Refrigerator Requirements Version 5 Section
19244 4)G\n(https://www.energystar.gov/sites/default/files/specs//private/ENERGY%20STAR%20Final%20Version
19245 %205.0%20Residential%20Refrigerators%20and%20Freezers%20Program%20Requirements.pdf)\nThe status is
19246 a boolean indicating whether the function is on, if off then defrost is scheduled as part of normal
19247 device operation.\nstartTime, from oir.r.time.period (mandatory) is an ISO8601 encoded start time
19248 for the interval in which defrost shall not occur.\nstopTime, from oic.r.time.period is an ISO8601
19249 encoded stop time for the interval in which defrost shall not occur.\ninterval, from
19250 oic.r.time.period with additional range restrictions is the time in minutes of the period that
19251 starts at starttime (if not present the default is 240).\nstopTime and interval are mutually
19252 exclusive; they cannot both be present in a Resource instance\nRetrieves the current Delay Defrost
19253 function status\n",
19254       "parameters": [
19255         {"$ref": "#/parameters/interface"}
19256       ],
19257       "responses": {
19258         "200": {
```

```

19259         "description" : "",
19260         "x-example":
19261         {
19262             "rt":      ["oic.r.delaydefrost"],
19263             "id":      "unique_example_id",
19264             "startTime": "06:00Z",
19265             "status": false
19266         }
19267     ,
19268     "schema": { "$ref": "#/definitions/DelayDefrost" }
19269 }
19270 },
19271 },
19272 "post": {
19273     "description": "Activates the desired Delay Defrost functions\n",
19274     "parameters": [
19275         { "$ref": "#/parameters/interface" },
19276         {
19277             "name": "body",
19278             "in": "body",
19279             "required": true,
19280             "schema": { "$ref": "#/definitions/DelayDefrost" },
19281             "x-example":
19282             {
19283                 "id":      "unique_example_id",
19284                 "status": true,
19285                 "startTime": "06:00Z",
19286                 "interval": 180
19287             }
19288         }
19289     ],
19290     "responses": {
19291         "200": {
19292             "description": "Indicates that the DelayDefrost function was changed.\nThe new
19293 representation may be provided in the response.\n",
19294             "x-example":
19295             {
19296                 "id":      "unique_example_id",
19297                 "status": true,
19298                 "startTime": "06:00Z",
19299                 "interval": 180
19300             }
19301         },
19302         "schema": { "$ref": "#/definitions/DelayDefrost" }
19303     },
19304     "403": {
19305         "description": "Indicates the update to the time properties was rejected.\nReasons
19306 for rejection:\n invalid time entry\nThe current unchanged representation may be provided in the
19307 response.\n",
19308         "x-example":
19309         {
19310             "id":      "unique_example_id",
19311             "status": true,
19312             "startTime": "06:00Z",
19313             "interval": 180
19314         }
19315     },
19316     "schema": { "$ref": "#/definitions/DelayDefrost" }
19317 }
19318 },
19319 },
19320 },
19321 },
19322 "parameters": {
19323     "interface" : {
19324         "in" : "query",
19325         "name" : "if",
19326         "type" : "string",
19327         "enum" : ["oic.if.a", "oic.if.baseline"]
19328     }
19329 },

```

```

19330 "definitions": {
19331     "DelayDefrost" :
19332     {
19333         "properties": {
19334             "id": {
19335                 "description": "Instance ID of this specific resource",
19336                 "maxLength": 64,
19337                 "readOnly": true,
19338                 "type": "string"
19339             },
19340             "if": {
19341                 "description": "The interface set supported by this resource",
19342                 "items": {
19343                     "enum": [
19344                         "oic.if.baseline",
19345                         "oic.if.ll",
19346                         "oic.if.b",
19347                         "oic.if.lb",
19348                         "oic.if.rw",
19349                         "oic.if.x",
19350                         "oic.if.a",
19351                         "oic.if.s"
19352                     ],
19353                     "type": "string"
19354                 },
19355                 "minItems": 1,
19356                 "readOnly": true,
19357                 "type": "array"
19358             },
19359             "interval": {
19360                 "default": 240,
19361                 "description": "Defrost interval as defined by Energy Star",
19362                 "maximum": 1440,
19363                 "minimum": 1,
19364                 "type": "integer"
19365             },
19366             "n": {
19367                 "description": "Friendly name of the resource",
19368                 "maxLength": 64,
19369                 "readOnly": true,
19370                 "type": "string"
19371             },
19372             "precision": {
19373                 "description": "Accuracy granularity of the exposed value",
19374                 "readOnly": true,
19375                 "type": "number"
19376             },
19377             "range": {
19378                 "description": "The valid range for the value Property",
19379                 "items": {
19380                     "anyOf": [
19381                         {
19382                             "type": "number"
19383                         },
19384                         {
19385                             "type": "integer"
19386                         }
19387                     ]
19388                 },
19389                 "maxItems": 2,
19390                 "minItems": 2,
19391                 "readOnly": true,
19392                 "type": "array"
19393             },
19394             "rt": {
19395                 "description": "Resource Type",
19396                 "items": {
19397                     "maxLength": 64,
19398                     "type": "string"
19399                 },
19400                 "minItems": 1,

```

```

19401         "readOnly": true,
19402         "type": "array"
19403     },
19404     "startTime": {
19405         "description": "Start time for the time period",
19406         "type": "string"
19407     },
19408     "status": {
19409         "description": "Indicates whether any supported delay defrost function is active",
19410         "type": "boolean"
19411     },
19412     "step": {
19413         "anyOf": [
19414             {
19415                 "type": "integer"
19416             },
19417             {
19418                 "type": "number"
19419             }
19420         ],
19421         "description": "Step value across the defined range",
19422         "readOnly": true
19423     },
19424     "stopTime": {
19425         "description": "Stop time for the time period, if present interval cannot be present",
19426         "type": "string"
19427     },
19428     "value": {
19429         "anyOf": [
19430             {
19431                 "type": "array"
19432             },
19433             {
19434                 "type": "string"
19435             },
19436             {
19437                 "type": "boolean"
19438             },
19439             {
19440                 "type": "integer"
19441             },
19442             {
19443                 "type": "number"
19444             },
19445             {
19446                 "type": "object"
19447             }
19448         ],
19449         "description": "The value sensed or actuated by this Resource"
19450     }
19451 },
19452 "required": [
19453     "startTime",
19454     "status"
19455 ],
19456 "type": "object"
19457 }
19458 }
19459 }
19460 }
19461

```

### B.27.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value



if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
startTime	string	yes		Start time for the time period
status	boolean	yes		Indicates whether any supported delay defrost function is active
interval	integer			Defrost interval as defined by Energy Star
stopTime	string			Stop time for the time period, if present interval cannot be present

## 19463 B.27.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/DelayDefrostResURI		get	post		

## 19464 B.28 Dimming

### 19465 B.28.1 Introduction

19466 This resource describes a dimming function.  
 19467 The value is an integer showing the current dimming level.  
 19468 If step (from oic.r.baseresource) is present then it represents the increment between dimmer  
 19469 values.  
 19470 When range (from oic.r.baseresource) is omitted, then the range is [0,100].  
 19471 A value of 0 means total dimming; a value of 100 means no dimming.  
 19472 Retrieves the current dimming level.  
 19473

### 19474 B.28.2 Example URI

19475 /DimmingResURI

### 19476 B.28.3 Resource Type

19477 The resource type (rt) is defined as: ['oic.r.light.dimming'].

## B.28.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Dimming",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/DimmingResURI" : {
      "get": {
        "description": "This resource describes a dimming function.\nThe value is an integer
showing the current dimming level.\nIf step (from oic.r.baseresource) is present then it represents
the increment between dimmer values.\nWhen range (from oic.r.baseresource) is omitted, then the
range is [0,100].\nA value of 0 means total dimming; a value of 100 means no dimming.\nRetrieves
the current dimming level.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.light.dimming"],
              "id": "unique_example_id",
              "dimmingSetting": 30,
              "step": 5,
              "range": [0,100]
            }
          },
          "schema": { "$ref": "#/definitions/Dimming" }
        }
      },
      "post": {
        "description": "Sets the desired dimming level.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" },
          {
            "name": "body",
            "in": "body",
            "required": true,
            "schema": { "$ref": "#/definitions/Dimming" },
            "x-example": {
              "id": "unique_example_id",
              "dimmingSetting": 40
            }
          }
        ]
      }
    }
  }
}
```

```

19548     ],
19549     "responses": {
19550         "200": {
19551             "description": "Indicates that the dimming was changed.\nThe new dimming level is
19552 provided in the response.\n",
19553             "x-example":
19554                 {
19555                     "id": "unique_example_id",
19556                     "dimmingSetting": 40
19557                 },
19558             "schema": { "$ref": "#/definitions/Dimming" }
19559         },
19560         "403": {
19561             "description": "This response is generated by the OIC Server when the client
19562 sends:\n An update with an out of range property value for dimmingSetting.\nThe server responds
19563 with the current resource representation.\n",
19564             "x-example":
19565                 {
19566                     "id": "unique_example_id",
19567                     "dimmingSetting": 40
19568                 },
19569             "schema": { "$ref": "#/definitions/Dimming" }
19570         }
19571     }
19572 }
19573 }
19574 }
19575 }
19576 },
19577 "parameters": {
19578     "interface": {
19579         "in": "query",
19580         "name": "if",
19581         "type": "string",
19582         "enum": ["oic.if.a", "oic.if.baseline"]
19583     }
19584 },
19585 "definitions": {
19586     "Dimming": {
19587         {
19588             "properties": {
19589                 "dimmingSetting": {
19590                     "description": "Current dimming value",
19591                     "type": "integer"
19592                 },
19593                 "id": {
19594                     "description": "Instance ID of this specific resource",
19595                     "maxLength": 64,
19596                     "readOnly": true,
19597                     "type": "string"
19598                 },
19599                 "if": {
19600                     "description": "The interface set supported by this resource",
19601                     "items": {
19602                         "enum": [
19603                             "oic.if.baseline",
19604                             "oic.if.ll",
19605                             "oic.if.b",
19606                             "oic.if.lb",
19607                             "oic.if.rw",
19608                             "oic.if.x",
19609                             "oic.if.a",
19610                             "oic.if.s"
19611                         ],
19612                         "type": "string"
19613                     },
19614                     "minItems": 1,
19615                     "readOnly": true,
19616                     "type": "array"
19617                 },
19618                 "n": {

```

```

19619         "description": "Friendly name of the resource",
19620         "maxLength": 64,
19621         "readOnly": true,
19622         "type": "string"
19623     },
19624     "precision": {
19625         "description": "Accuracy granularity of the exposed value",
19626         "readOnly": true,
19627         "type": "number"
19628     },
19629     "range": {
19630         "description": "The valid range for the value Property",
19631         "items": {
19632             "anyOf": [
19633                 {
19634                     "type": "number"
19635                 },
19636                 {
19637                     "type": "integer"
19638                 }
19639             ]
19640         },
19641         "maxItems": 2,
19642         "minItems": 2,
19643         "readOnly": true,
19644         "type": "array"
19645     },
19646     "rt": {
19647         "description": "Resource Type",
19648         "items": {
19649             "maxLength": 64,
19650             "type": "string"
19651         },
19652         "minItems": 1,
19653         "readOnly": true,
19654         "type": "array"
19655     },
19656     "step": {
19657         "anyOf": [
19658             {
19659                 "type": "integer"
19660             },
19661             {
19662                 "type": "number"
19663             }
19664         ],
19665         "description": "Step value across the defined range",
19666         "readOnly": true
19667     },
19668     "value": {
19669         "anyOf": [
19670             {
19671                 "type": "array"
19672             },
19673             {
19674                 "type": "string"
19675             },
19676             {
19677                 "type": "boolean"
19678             },
19679             {
19680                 "type": "integer"
19681             },
19682             {
19683                 "type": "number"
19684             },
19685             {
19686                 "type": "object"
19687             }
19688         ],
19689         "description": "The value sensed or actuated by this Resource"

```

```
19690     },
19691   },
19692   "required": [
19693     "dimmingSetting"
19694   ],
19695   "type": "object"
19696 }
19697 }
19698 }
19699 }
19700 }
```

19701 **B.28.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource
dimmingSetting	integer	yes		Current dimming value
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property

19702 **B.28.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/DimmingResURI		get	post		

19703 **B.29 Door**

19704 **B.29.1 Introduction**

19705 This resource describes the open state of the door.  
19706 A door is modelled by means of openState (Open/Closed), openDuration (ISO 8601 Time), and  
19707 openAlarm (boolean).  
19708 For openState, the value 'Open' indicates the door is open.  
19709 The value 'Closed' indicates the door is closed.  
19710 The type of openDuration is an ISO 8601 Time encoded string.  
19711 The openAlarm value 'true' indicates that the open alarm is active.  
19712 The openAlarm value 'false' indicates that open alarm is not active.  
19713 retrieves the state of the Door.

## B.29.2 Example URI

/DoorResURI

## B.29.3 Resource Type

The resource type (rt) is defined as: ['oic.r.door'].

## B.29.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Door",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \n\"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/DoorResURI": {
      "get": {
        "description": "This resource describes the open state of the door.\nA door is modelled by
means of openState (Open/Closed), openDuration (ISO 8601 Time), and openAlarm (boolean).\nFor
openState, the value 'Open' indicates the door is open.\nThe value 'Closed' indicates the door is
closed.\nThe type of openDuration is an ISO 8601 Time encoded string.\nThe openAlarm value 'true'
indicates that the open alarm is active.\nThe openAlarm value 'false' indicates that open alarm is
not active.\nretrieves the state of the Door.",
        "parameters": [
          { "$ref": "#/parameters/interface-all" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.door"],
              "id": "unique_example_id",
              "openState": "Open",
              "openDuration": "P0Y0M0DT2H25M5S",
              "openAlarm": true
            }
          },
          "schema": { "$ref": "#/definitions/Door" }
        }
      },
      "post": {
        "description": "Sets the current Door properties.\nThe only property that can be set as
part of an update operation is\n the openAlarm.\nThis can be made active (true) or inactive
(false)\n",
        "parameters": [
          { "$ref": "#/parameters/interface-actuator" },
          {

```

```

19781         "name": "body",
19782         "in": "body",
19783         "required": true,
19784         "schema": { "$ref": "#/definitions/DoorUpdate" },
19785         "x-example":
19786         {
19787             "id": "unique_example_id",
19788             "openAlarm": false
19789         }
19790     },
19791     "responses": {
19792         "200": {
19793             "description": "",
19794             "x-example":
19795             {
19796                 "id": "unique_example_id",
19797                 "openAlarm": false
19798             }
19799         },
19800         "schema": { "$ref": "#/definitions/DoorUpdate" }
19801     }
19802 }
19803 }
19804 }
19805 },
19806 "parameters": {
19807     "interface-actuator" : {
19808         "in" : "query",
19809         "name" : "if",
19810         "type" : "string",
19811         "enum" : ["oic.if.a", "oic.if.baseline"]
19812     },
19813     "interface-all" : {
19814         "in" : "query",
19815         "name" : "if",
19816         "type" : "string",
19817         "enum" : ["oic.if.a", "oic.if.s", "oic.if.baseline"]
19818     }
19819 },
19820 "definitions": {
19821     "Door" :
19822     {
19823         "properties": {
19824             "id": {
19825                 "description": "Instance ID of this specific resource",
19826                 "maxLength": 64,
19827                 "readOnly": true,
19828                 "type": "string"
19829             },
19830             "if": {
19831                 "description": "The interface set supported by this resource",
19832                 "items": {
19833                     "enum": [
19834                         "oic.if.baseline",
19835                         "oic.if.ll",
19836                         "oic.if.b",
19837                         "oic.if.lb",
19838                         "oic.if.rw",
19839                         "oic.if.r",
19840                         "oic.if.a",
19841                         "oic.if.s"
19842                     ],
19843                     "type": "string"
19844                 },
19845                 "minItems": 1,
19846                 "readOnly": true,
19847                 "type": "array"
19848             }
19849         },
19850         "n": {
19851             "description": "Friendly name of the resource",

```

```

19852         "maxLength": 64,
19853         "readOnly": true,
19854         "type": "string"
19855     },
19856     "openAlarm": {
19857         "description": "The state of the door open alarm",
19858         "type": "boolean"
19859     },
19860     "openDuration": {
19861         "description": "The time duration the door has been open",
19862         "readOnly": true,
19863         "type": "string"
19864     },
19865     "openState": {
19866         "description": "The state of the door (open or closed)",
19867         "enum": [
19868             "Open",
19869             "Closed"
19870         ],
19871         "readOnly": true
19872     },
19873     "precision": {
19874         "description": "Accuracy granularity of the exposed value",
19875         "readOnly": true,
19876         "type": "number"
19877     },
19878     "range": {
19879         "description": "The valid range for the value Property",
19880         "items": {
19881             "anyOf": [
19882                 {
19883                     "type": "number"
19884                 },
19885                 {
19886                     "type": "integer"
19887                 }
19888             ]
19889         },
19890         "maxItems": 2,
19891         "minItems": 2,
19892         "readOnly": true,
19893         "type": "array"
19894     },
19895     "rt": {
19896         "description": "Resource Type",
19897         "items": {
19898             "maxLength": 64,
19899             "type": "string"
19900         },
19901         "minItems": 1,
19902         "readOnly": true,
19903         "type": "array"
19904     },
19905     "step": {
19906         "anyOf": [
19907             {
19908                 "type": "integer"
19909             },
19910             {
19911                 "type": "number"
19912             }
19913         ],
19914         "description": "Step value across the defined range",
19915         "readOnly": true
19916     },
19917     "value": {
19918         "anyOf": [
19919             {
19920                 "type": "array"
19921             },
19922             {

```



```

19923         "type": "string"
19924     },
19925     {
19926         "type": "boolean"
19927     },
19928     {
19929         "type": "integer"
19930     },
19931     {
19932         "type": "number"
19933     },
19934     {
19935         "type": "object"
19936     }
19937 ],
19938 "description": "The value sensed or actuated by this Resource"
19939 }
19940 },
19941 "required": [
19942     "openState"
19943 ],
19944 "type": "object"
19945 }
19946
19947 ,
19948 "DoorUpdate" :
19949 {
19950     "properties": {
19951         "id": {
19952             "description": "Instance ID of this specific resource",
19953             "maxLength": 64,
19954             "readOnly": true,
19955             "type": "string"
19956         },
19957         "if": {
19958             "description": "The interface set supported by this resource",
19959             "items": {
19960                 "enum": [
19961                     "oic.if.baseline",
19962                     "oic.if.ll",
19963                     "oic.if.b",
19964                     "oic.if.lb",
19965                     "oic.if.rw",
19966                     "oic.if.r",
19967                     "oic.if.a",
19968                     "oic.if.s"
19969                 ],
19970                 "type": "string"
19971             },
19972             "minItems": 1,
19973             "readOnly": true,
19974             "type": "array"
19975         },
19976         "n": {
19977             "description": "Friendly name of the resource",
19978             "maxLength": 64,
19979             "readOnly": true,
19980             "type": "string"
19981         },
19982         "openAlarm": {
19983             "description": "The state of the door open alarm",
19984             "type": "boolean"
19985         },
19986         "precision": {
19987             "description": "Accuracy granularity of the exposed value",
19988             "readOnly": true,
19989             "type": "number"
19990         },
19991         "range": {
19992             "description": "The valid range for the value Property",
19993             "items": {

```

```

19994         "anyOf": [
19995             {
19996                 "type": "number"
19997             },
19998             {
19999                 "type": "integer"
20000             }
20001         ]
20002     },
20003     "maxItems": 2,
20004     "minItems": 2,
20005     "readOnly": true,
20006     "type": "array"
20007 },
20008 "rt": {
20009     "description": "Resource Type",
20010     "items": {
20011         "maxLength": 64,
20012         "type": "string"
20013     },
20014     "minItems": 1,
20015     "readOnly": true,
20016     "type": "array"
20017 },
20018 "step": {
20019     "anyOf": [
20020         {
20021             "type": "integer"
20022         },
20023         {
20024             "type": "number"
20025         }
20026     ],
20027     "description": "Step value across the defined range",
20028     "readOnly": true
20029 },
20030 "value": {
20031     "anyOf": [
20032         {
20033             "type": "array"
20034         },
20035         {
20036             "type": "string"
20037         },
20038         {
20039             "type": "boolean"
20040         },
20041         {
20042             "type": "integer"
20043         },
20044         {
20045             "type": "number"
20046         },
20047         {
20048             "type": "object"
20049         }
20050     ],
20051     "description": "The value sensed or actuated by this Resource"
20052 },
20053 },
20054 "type": "object"
20055 }
20056
20057 }
20058 }
20059

```

#### B.29.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
openAlarm	boolean			The state of the door open alarm
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
openState	multiple types: see schema	yes	Read Only	The state of the door (open or closed)
openDuration	string		Read Only	The time duration the door has been open
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
step	multiple types: see schema		Read Only	Step value across the defined range
openAlarm	boolean			The state of the door open alarm
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type
value	multiple types: see schema			The value sensed or

				actuated by this Resource
--	--	--	--	---------------------------

## 20061 B.29.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/DoorResURI		get	post		

## 20062 B.30 Demand Response Load Control (DRLC).

### 20063 B.30.1 Introduction

20064 This resource describes any to be applied or currently being applied DRLC signal.  
 20065 The DRType is the ApplianceLoadReductionType defined in Zigbee/HA Smart Energy Profile 2.0.  
 20066 Start is a string containing an ISO8601 encoded start time.  
 20067 The duration value is in minutes.  
 20068 Override indicates whether the consumer has overridden the request (true) or not (false).  
 20069 Provides the current DRLC action that is being applied.  
 20070

### 20071 B.30.2 Example URI

20072 /DRLCResURI

### 20073 B.30.3 Resource Type

20074 The resource type (rt) is defined as: ['oic.r.energy.drlc'].

### 20075 B.30.4 Swagger2.0 Definition

```

20076 {
20077   "swagger": "2.0",
20078   "info": {
20079     "title": "Demand Response Load Control (DRLC).",
20080     "version": "v1.1.0-20160519",
20081     "license": {
20082       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
20083       "x-description": "Redistribution and use in source and binary forms, with or without
20084 modification, are permitted provided that the following conditions are met:\n      1.
20085 Redistributions of source code must retain the above copyright notice, this list of conditions and
20086 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
20087 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
20088 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
20089 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
20090 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
20091 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
20092 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
20093 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
20094 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
20095 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
20096 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
20097 OF SUCH DAMAGE.\n"
20098     }
20099   },
20100   "schemes": ["http"],
20101   "consumes": ["application/json"],
20102   "produces": ["application/json"],
20103   "paths": {
20104     "/DRLCResURI" : {
20105       "get": {
20106         "description": "This resource describes any to be applied or currently being applied DRLC
20107 signal.\nThe DRType is the ApplianceLoadReductionType defined in Zigbee/HA Smart Energy Profile
20108 2.0.\nStart is a string containing an ISO8601 encoded start time.\nThe duration value is in
20109 minutes.\nOverride indicates whether the consumer has overridden the request (true) or not
20110 (false).\nProvides the current DRLC action that is being applied.\n",
20111         "parameters": [
20112           { "$ref": "#/parameters/interface" }
20113         ],
20114         "responses": {

```

```

20115         "200": {
20116             "description" : "",
20117             "x-example":
20118                 {
20119                     "rt":      ["oic.r.energy.drlc"],
20120                     "id":      "unique_example_id",
20121                     "DRType":   1,
20122                     "start":    "2015-01-09T16:45Z",
20123                     "duration": 10,
20124                     "override": false
20125                 }
20126             ,
20127             "schema": { "$ref": "#/definitions/DRLC" }
20128         }
20129     },
20130 },
20131 "put": {
20132     "description": "Provides the DRLC action to be applied to the device or updates an existing
20133 action.\n",
20134     "parameters": [
20135         { "$ref": "#/parameters/interface" },
20136         {
20137             "name": "body",
20138             "in": "body",
20139             "required": true,
20140             "schema": { "$ref": "#/definitions/DRLC" },
20141             "x-example":
20142                 {
20143                     "rt":      ["oic.r.energy.drlc"],
20144                     "id":      "unique_example_id",
20145                     "DRType":   1,
20146                     "start":    "2015-01-09T16:45Z",
20147                     "duration": 10
20148                 }
20149         }
20150     ],
20151     "responses": {
20152         "200": {
20153             "description": "Indicates that the target DRLC resource was changed.\nThe new
20154 resource attributes are provided in the response.\n",
20155             "x-example":
20156                 {
20157                     "DRType":   1,
20158                     "id":      "unique_example_id",
20159                     "start":    "2015-01-09T17:00Z",
20160                     "duration": 15,
20161                     "override": false
20162                 }
20163             ,
20164             "schema": { "$ref": "#/definitions/DRLC" }
20165         },
20166         "201": {
20167             "description": "Indicates successful creation of the DRLC resource with the
20168 attributes provided.\nThe response includes the URI of the created resource.\n",
20169             "x-example":
20170                 {
20171                     "ResURI":    "/MyDevice/MyDRLCURI"
20172                 }
20173             ,
20174             "schema": { "$ref": "#/definitions/CreateResponse" }
20175         }
20176     }
20177 },
20178 },
20179 },
20180 "parameters": {
20181     "interface" : {
20182         "in" : "query",
20183         "name" : "if",
20184         "type" : "string",
20185         "enum" : ["oic.if.b", "oic.if.baseline"]

```

```

20186     }
20187 },
20188 "definitions": {
20189     "DRLC" :
20190     {
20191         "properties": {
20192             "DRType": {
20193                 "description": "The to be applied demand-response type",
20194                 "type": "integer"
20195             },
20196             "duration": {
20197                 "description": "The duration of the to be applied DR type",
20198                 "type": "integer"
20199             },
20200             "id": {
20201                 "description": "Instance ID of this specific resource",
20202                 "maxLength": 64,
20203                 "readOnly": true,
20204                 "type": "string"
20205             },
20206             "if": {
20207                 "description": "The interface set supported by this resource",
20208                 "items": {
20209                     "enum": [
20210                         "oic.if.baseline",
20211                         "oic.if.ll",
20212                         "oic.if.b",
20213                         "oic.if.lb",
20214                         "oic.if.rw",
20215                         "oic.if.x",
20216                         "oic.if.a",
20217                         "oic.if.s"
20218                     ],
20219                     "type": "string"
20220                 },
20221                 "minItems": 1,
20222                 "readOnly": true,
20223                 "type": "array"
20224             },
20225             "n": {
20226                 "description": "Friendly name of the resource",
20227                 "maxLength": 64,
20228                 "readOnly": true,
20229                 "type": "string"
20230             },
20231             "override": {
20232                 "description": "Whether the consumer has overridden the application of DR",
20233                 "type": "boolean"
20234             },
20235             "precision": {
20236                 "description": "Accuracy granularity of the exposed value",
20237                 "readOnly": true,
20238                 "type": "number"
20239             },
20240             "range": {
20241                 "description": "The valid range for the value Property",
20242                 "items": {
20243                     "anyOf": [
20244                         {
20245                             "type": "number"
20246                         },
20247                         {
20248                             "type": "integer"
20249                         }
20250                     ]
20251                 },
20252                 "maxItems": 2,
20253                 "minItems": 2,
20254                 "readOnly": true,
20255                 "type": "array"
20256             },

```

```

20257     "rt": {
20258         "description": "Resource Type",
20259         "items": {
20260             "maxLength": 64,
20261             "type": "string"
20262         },
20263         "minItems": 1,
20264         "readOnly": true,
20265         "type": "array"
20266     },
20267     "start": {
20268         "description": "The start time for the application of DR",
20269         "type": "string"
20270     },
20271     "step": {
20272         "anyOf": [
20273             {
20274                 "type": "integer"
20275             },
20276             {
20277                 "type": "number"
20278             }
20279         ],
20280         "description": "Step value across the defined range",
20281         "readOnly": true
20282     },
20283     "value": {
20284         "anyOf": [
20285             {
20286                 "type": "array"
20287             },
20288             {
20289                 "type": "string"
20290             },
20291             {
20292                 "type": "boolean"
20293             },
20294             {
20295                 "type": "integer"
20296             },
20297             {
20298                 "type": "number"
20299             },
20300             {
20301                 "type": "object"
20302             }
20303         ],
20304         "description": "The value sensed or actuated by this Resource"
20305     },
20306 ],
20307 "required": [
20308     "DRType"
20309 ],
20310 "type": "object"
20311 }
20312
20313 ,
20314 "CreateResponse" :
20315 {
20316     "properties": {
20317         "ResURI": {
20318             "type": "string"
20319         }
20320     },
20321     "type": "object"
20322 }
20323
20324 }
20325 }
20326

```

20327

**B.30.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
ResURI	string			
value	multiple types: see schema			The value sensed or actuated by this Resource
start	string			The start time for the application of DR
duration	integer			The duration of the to be applied DR type
override	boolean			Whether the consumer has overridden the application of DR
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
if	array: see schema		Read Only	The interface set supported by this resource
precision	number		Read Only	Accuracy granularity of the exposed value
DRType	integer	yes		The to be applied demand-response type
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource

20328

**B.30.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/DRLCResURI	put	get			

20329

**B.31 Eco Mode**

20330

**B.31.1 Introduction**

20331 This resource specifies the supported and currently active Eco Mode of a Device  
 20332 The Resource uses the existing schema for Mode (oic.r.mode) with a restriction that the population  
 20333 of supportedmodes and modes Properties is restricted to the set of values given below:  
 20334 "disabled","enabled","notsupported"

20335 The adminforced Property indicates that the value has been set by another party (e.g. via some  
 20336 offboard Smart Energy interaction)

20337



## B.31.2 Example URI

/EcomodeResURI

## B.31.3 Resource Type

The resource type (rt) is defined as: ['oic.r.ecomode'].

## B.31.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Eco Mode",
    "version": "OCF-v1.0.0-20160620",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/EcomodeResURI" : {
      "get": {
        "description": "This resource specifies the supported and currently active Eco Mode of a
Device\nThe Resource uses the existing schema for Mode (oic.r.mode) with a restriction that the
population of supportedmodes and modes Properties is restricted to the set of values given
below:\n\"disabled\", \"enabled\", \"notsupported\"\n\nThe adminforced Property indicates that the
value has been set by another party (e.g. via some offboard Smart Energy interaction)\n",
        "parameters": [
          {"$ref": "#/parameters/interface"}
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.ecomode"],
              "id": "unique_example_id",
              "supportedModes": ["disabled", "enabled"],
              "modes": ["disabled"],
              "adminforced": false
            }
          }
        },
        "schema": { "$ref": "#/definitions/ecomode" }
      }
    }
  },
  "post": {
    "description": "",
    "parameters": [
      {"$ref": "#/parameters/interface"}
    ],
    {
      "name": "body",
      "in": "body",
      "required": true,

```

```

20405         "schema": { "$ref": "#/definitions/ecomode-update" },
20406         "x-example":
20407             {
20408                 "id": "unique_example_id",
20409                 "modes": ["enabled"]
20410             }
20411     },
20412 ],
20413     "responses": {
20414         "200": {
20415             "description": "",
20416             "x-example":
20417                 {
20418                     "id": "unique_example_id",
20419                     "modes": ["enabled"]
20420                 }
20421             ,
20422             "schema": { "$ref": "#/definitions/ecomode-update" }
20423         }
20424     }
20425 },
20426 },
20427 },
20428     "parameters": {
20429         "interface" : {
20430             "in" : "query",
20431             "name" : "if",
20432             "type" : "string",
20433             "enum" : ["oic.if.a", "oic.if.baseline"]
20434         }
20435     },
20436     "definitions": {
20437         "ecomode" :
20438             {
20439                 "properties": {
20440                     "adminforced": {
20441                         "description": "Indicator that the current mode of operation has been forced by admin
20442 action.",
20443                         "readOnly": true,
20444                         "type": "boolean"
20445                     },
20446                     "id": {
20447                         "description": "Instance ID of this specific resource",
20448                         "maxLength": 64,
20449                         "readOnly": true,
20450                         "type": "string"
20451                     },
20452                     "if": {
20453                         "description": "The interface set supported by this resource",
20454                         "items": {
20455                             "enum": [
20456                                 "oic.if.baseline",
20457                                 "oic.if.ll",
20458                                 "oic.if.b",
20459                                 "oic.if.lb",
20460                                 "oic.if.rw",
20461                                 "oic.if.r",
20462                                 "oic.if.a",
20463                                 "oic.if.s"
20464                             ],
20465                             "type": "string"
20466                         },
20467                         "minItems": 1,
20468                         "readOnly": true,
20469                         "type": "array"
20470                     },
20471                     "modes": {
20472                         "description": "Array of the currently active mode(s)",
20473                         "items": {
20474                             "type": "string"
20475                         },

```

```

20476         "type": "array"
20477     },
20478     "n": {
20479         "description": "Friendly name of the resource",
20480         "maxLength": 64,
20481         "readOnly": true,
20482         "type": "string"
20483     },
20484     "precision": {
20485         "description": "Accuracy granularity of the exposed value",
20486         "readOnly": true,
20487         "type": "number"
20488     },
20489     "range": {
20490         "description": "The valid range for the value Property",
20491         "items": {
20492             "anyOf": [
20493                 {
20494                     "type": "number"
20495                 },
20496                 {
20497                     "type": "integer"
20498                 }
20499             ]
20500         },
20501         "maxItems": 2,
20502         "minItems": 2,
20503         "readOnly": true,
20504         "type": "array"
20505     },
20506     "rt": {
20507         "description": "Resource Type",
20508         "items": {
20509             "maxLength": 64,
20510             "type": "string"
20511         },
20512         "minItems": 1,
20513         "readOnly": true,
20514         "type": "array"
20515     },
20516     "step": {
20517         "anyOf": [
20518             {
20519                 "type": "integer"
20520             },
20521             {
20522                 "type": "number"
20523             }
20524         ],
20525         "description": "Step value across the defined range",
20526         "readOnly": true
20527     },
20528     "supportedModes": {
20529         "description": "Array of possible modes the device supports.",
20530         "items": {
20531             "type": "string"
20532         },
20533         "readOnly": true,
20534         "type": "array"
20535     },
20536     "value": {
20537         "anyOf": [
20538             {
20539                 "type": "array"
20540             },
20541             {
20542                 "type": "string"
20543             },
20544             {
20545                 "type": "boolean"
20546             }

```

```

20547         {
20548             "type": "integer"
20549         },
20550         {
20551             "type": "number"
20552         },
20553         {
20554             "type": "object"
20555         }
20556     ],
20557     "description": "The value sensed or actuated by this Resource"
20558 }
20559 },
20560 "required": [
20561     "supportedModes",
20562     "modes"
20563 ],
20564 "type": "object"
20565 }
20566
20567 ,
20568 "ecomode-update" :
20569 {
20570     "properties": {
20571         "id": {
20572             "description": "Instance ID of this specific resource",
20573             "maxLength": 64,
20574             "readOnly": true,
20575             "type": "string"
20576         },
20577         "if": {
20578             "description": "The interface set supported by this resource",
20579             "items": {
20580                 "enum": [
20581                     "oic.if.baseline",
20582                     "oic.if.ll",
20583                     "oic.if.b",
20584                     "oic.if.lb",
20585                     "oic.if.rw",
20586                     "oic.if.r",
20587                     "oic.if.a",
20588                     "oic.if.s"
20589                 ],
20590                 "type": "string"
20591             },
20592             "minItems": 1,
20593             "readOnly": true,
20594             "type": "array"
20595         },
20596         "modes": {
20597             "description": "Desired mode",
20598             "items": {
20599                 "type": "string"
20600             },
20601             "type": "array"
20602         },
20603         "n": {
20604             "description": "Friendly name of the resource",
20605             "maxLength": 64,
20606             "readOnly": true,
20607             "type": "string"
20608         },
20609         "precision": {
20610             "description": "Accuracy granularity of the exposed value",
20611             "readOnly": true,
20612             "type": "number"
20613         },
20614         "range": {
20615             "description": "The valid range for the value Property",
20616             "items": {
20617                 "anyOf": [

```

```

20618         {
20619             "type": "number"
20620         },
20621         {
20622             "type": "integer"
20623         }
20624     ],
20625 },
20626 "maxItems": 2,
20627 "minItems": 2,
20628 "readOnly": true,
20629 "type": "array"
20630 },
20631 "rt": {
20632     "description": "Resource Type",
20633     "items": {
20634         "maxLength": 64,
20635         "type": "string"
20636     },
20637     "minItems": 1,
20638     "readOnly": true,
20639     "type": "array"
20640 },
20641 "step": {
20642     "anyOf": [
20643         {
20644             "type": "integer"
20645         },
20646         {
20647             "type": "number"
20648         }
20649     ],
20650     "description": "Step value across the defined range",
20651     "readOnly": true
20652 },
20653 "value": {
20654     "anyOf": [
20655         {
20656             "type": "array"
20657         },
20658         {
20659             "type": "string"
20660         },
20661         {
20662             "type": "boolean"
20663         },
20664         {
20665             "type": "integer"
20666         },
20667         {
20668             "type": "number"
20669         },
20670         {
20671             "type": "object"
20672         }
20673     ],
20674     "description": "The value sensed or actuated by this Resource"
20675 }
20676 },
20677 "required": [
20678     "modes"
20679 ],
20680 "type": "object"
20681 }
20682 }
20683 }
20684 }
20685

```

**B.31.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
adminforced	boolean		Read Only	Indicator that the current mode of operation has been forced by admin action.
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
modes	array: see schema	yes		Array of the currently active mode(s)
if	array: see schema		Read Only	The interface set supported by this resource
supportedModes	array: see schema	yes	Read Only	Array of possible modes the device supports.
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource
rt	array: see schema		Read Only	Resource Type
modes	array: see schema	yes		Desired mode

if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range

### B.31.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/EcomodeResURI		get	post		

## B.32 Energy Consumption

### B.32.1 Introduction

This resource describes the energy consumed by the device since power up (the energy value is in Watt Hours [Wh]) and the instantaneous power draw of the device (the power value is in Watts [W]) at the time the resource was queried. The power value is in Watts [W]. The energy value is in Watt Hours [Wh]. Provides the current power draw and cumulative energy usage.

### B.32.2 Example URI

/EnergyConsumptionResURI

### B.32.3 Resource Type

The resource type (rt) is defined as: ['oic.r.energy.consumption'].

### B.32.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Energy Consumption",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n
1. Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n
2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n
THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n
IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n
HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/EnergyConsumptionResURI" : {
      "get": {
        "description": "This resource describes the energy consumed by the device since power up
(the energy value is in Watt Hours [Wh]) \nand the instantaneous power draw of the device (the
power value is in Watts [W]) at the time the resource was queried.\nThe power value is in Watts
```

```

20736 [W].\nThe energy value is in Watt Hours [Wh].\nProvides the current power draw and cumulative
20737 energy usage.\n",
20738     "parameters": [
20739         {"$ref": "#/parameters/interface"}
20740     ],
20741     "responses": {
20742         "200": {
20743             "description": "",
20744             "x-example":
20745                 {
20746                     "rt": ["oic.r.energy.consumption"],
20747                     "id": "unique_example_id",
20748                     "power": 2000.1,
20749                     "energy": 3500.4
20750                 },
20751             "schema": {"$ref": "#/definitions/Consumption"}
20752         }
20753     }
20754 },
20755 },
20756 },
20757 },
20758 "parameters": {
20759     "interface": {
20760         "in": "query",
20761         "name": "if",
20762         "type": "string",
20763         "enum": ["oic.if.s", "oic.if.baseline"]
20764     }
20765 },
20766 "definitions": {
20767     "Consumption":
20768         {
20769             "properties": {
20770                 "energy": {
20771                     "description": "Energy consumed",
20772                     "readOnly": true,
20773                     "type": "number"
20774                 },
20775                 "id": {
20776                     "description": "Instance ID of this specific resource",
20777                     "maxLength": 64,
20778                     "readOnly": true,
20779                     "type": "string"
20780                 },
20781                 "if": {
20782                     "description": "The interface set supported by this resource",
20783                     "items": {
20784                         "enum": [
20785                             "oic.if.baseline",
20786                             "oic.if.ll",
20787                             "oic.if.b",
20788                             "oic.if.lb",
20789                             "oic.if.rw",
20790                             "oic.if.r",
20791                             "oic.if.a",
20792                             "oic.if.s"
20793                         ],
20794                         "type": "string"
20795                     },
20796                     "minItems": 1,
20797                     "readOnly": true,
20798                     "type": "array"
20799                 },
20800                 "n": {
20801                     "description": "Friendly name of the resource",
20802                     "maxLength": 64,
20803                     "readOnly": true,
20804                     "type": "string"
20805                 },
20806                 "power": {

```



```

20807         "description": "Instantaneous Power",
20808         "readOnly": true,
20809         "type": "number"
20810     },
20811     "precision": {
20812         "description": "Accuracy granularity of the exposed value",
20813         "readOnly": true,
20814         "type": "number"
20815     },
20816     "range": {
20817         "description": "The valid range for the value Property",
20818         "items": {
20819             "anyOf": [
20820                 {
20821                     "type": "number"
20822                 },
20823                 {
20824                     "type": "integer"
20825                 }
20826             ]
20827         },
20828         "maxItems": 2,
20829         "minItems": 2,
20830         "readOnly": true,
20831         "type": "array"
20832     },
20833     "rt": {
20834         "description": "Resource Type",
20835         "items": {
20836             "maxLength": 64,
20837             "type": "string"
20838         },
20839         "minItems": 1,
20840         "readOnly": true,
20841         "type": "array"
20842     },
20843     "step": {
20844         "anyOf": [
20845             {
20846                 "type": "integer"
20847             },
20848             {
20849                 "type": "number"
20850             }
20851         ],
20852         "description": "Step value across the defined range",
20853         "readOnly": true
20854     },
20855     "value": {
20856         "anyOf": [
20857             {
20858                 "type": "array"
20859             },
20860             {
20861                 "type": "string"
20862             },
20863             {
20864                 "type": "boolean"
20865             },
20866             {
20867                 "type": "integer"
20868             },
20869             {
20870                 "type": "number"
20871             },
20872             {
20873                 "type": "object"
20874             }
20875         ],
20876         "description": "The value sensed or actuated by this Resource"
20877     }

```

```

20878     },
20879     "required": [
20880         "power",
20881         "energy"
20882     ],
20883     "type": "object"
20884 }
20885 }
20886 }
20887 }
20888

```

### 20889 B.32.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
energy	number	yes	Read Only	Energy consumed
range	array: see schema		Read Only	The valid range for the value Property
power	number	yes	Read Only	Instantaneous Power
rt	array: see schema		Read Only	Resource Type

### 20890 B.32.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/EnergyConsumptionResURI		get			

## 20891 B.33 Energy Overload/Circuit Breaker

### 20892 B.33.1 Introduction

20893 This resource describes whether an energy overload detector/circuit breaker  
20894 is currently tripped.  
20895 The value is a boolean.  
20896 A value of 'true' means that energy overload has been tripped.  
20897 A value of 'false' means that energy overload has not been tripped.  
20898

### 20899 B.33.2 Example URI

20900 /EnergyOverloadResURI

### B.33.3 Resource Type

The resource type (rt) is defined as: ['oic.r.energy.overload'].

### B.33.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Energy Overload/Circuit Breaker",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/EnergyOverloadResURI" : {
      "get": {
        "description": "This resource describes whether an energy overload detector/circuit
breaker\n is currently tripped.\nThe value is a boolean.\nA value of 'true' means that energy
overload has been tripped.\nA value of 'false' means that energy overload has not been tripped.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.energy.overload"],
              "id": "unique_example_id",
              "value": true
            }
          },
          "schema": { "$ref": "#/definitions/EnergyOverload" }
        }
      }
    }
  },
  "parameters": {
    "interface" : {
      "in" : "query",
      "name" : "if",
      "type" : "string",
      "enum" : ["oic.if.s", "oic.if.baseline"]
    }
  },
  "definitions": {
    "EnergyOverload" : {
      "properties": {
        "id": {
          "description": "Instance ID of this specific resource",
```

```

20970         "maxLength": 64,
20971         "readOnly": true,
20972         "type": "string"
20973     },
20974     "if": {
20975         "description": "The interface set supported by this resource",
20976         "items": {
20977             "enum": [
20978                 "oic.if.baseline",
20979                 "oic.if.ll",
20980                 "oic.if.b",
20981                 "oic.if.lb",
20982                 "oic.if.rw",
20983                 "oic.if.r",
20984                 "oic.if.a",
20985                 "oic.if.s"
20986             ],
20987             "type": "string"
20988         },
20989         "minItems": 1,
20990         "readOnly": true,
20991         "type": "array"
20992     },
20993     "n": {
20994         "description": "Friendly name of the resource",
20995         "maxLength": 64,
20996         "readOnly": true,
20997         "type": "string"
20998     },
20999     "precision": {
21000         "description": "Accuracy granularity of the exposed value",
21001         "readOnly": true,
21002         "type": "number"
21003     },
21004     "range": {
21005         "description": "The valid range for the value Property",
21006         "items": {
21007             "anyOf": [
21008                 {
21009                     "type": "number"
21010                 },
21011                 {
21012                     "type": "integer"
21013                 }
21014             ]
21015         },
21016         "maxItems": 2,
21017         "minItems": 2,
21018         "readOnly": true,
21019         "type": "array"
21020     },
21021     "rt": {
21022         "description": "Resource Type",
21023         "items": {
21024             "maxLength": 64,
21025             "type": "string"
21026         },
21027         "minItems": 1,
21028         "readOnly": true,
21029         "type": "array"
21030     },
21031     "step": {
21032         "anyOf": [
21033             {
21034                 "type": "integer"
21035             },
21036             {
21037                 "type": "number"
21038             }
21039         ],
21040         "description": "Step value across the defined range",

```

```

21041         "readOnly": true
21042     },
21043     "value": {
21044         "description": "true = sensed, false = not sensed.",
21045         "readOnly": true,
21046         "type": "boolean"
21047     }
21048 },
21049 "required": [
21050     "value"
21051 ],
21052 "type": "object"
21053 }
21054 }
21055 }
21056 }
21057

```

### 21058 B.33.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
id	string		Read Only	Instance ID of this specific resource
value	boolean	yes	Read Only	true = sensed, false = not sensed.
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource

### 21059 B.33.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/EnergyOverloadResURI		get			

## 21060 B.34 Energy Usage

### 21061 B.34.1 Introduction

21062 This resource describes a cumulative time-based energy usage query..  
21063 The resource is a composite resource being made up as a collection of:  
21064     TimePeriod     Resource  
21065     EnergyConsumption     Resource  
21066 Retrieves the energy usage information as a composite of consumption over time.  
21067

### 21068 B.34.2 Example URI

21069 /EnergyUsageResURI

### B.34.3 Resource Type

The resource type (rt) is defined as: ['oic.r.energy.usage'].

### B.34.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Energy Usage",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/EnergyUsageResURI" : {
      "get": {
        "description": "This resource describes a cumulative time-based energy usage query..\nThe
resource is a composite resource being made up as a collection of:\n TimePeriod Resource\n
EnergyConsumption Resource\nRetrieves the energy usage information as a composite of consumption
over time.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.energy.usage"],
              "id": "unique_example_id",
              "resources": [
                {
                  "href": "/TimeIntervalResURI",
                  "rel": "contains",
                  "rt": ["oic.r.time.period"],
                  "if": ["oic.if.a"],
                  "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
                },
                {
                  "href": "/EnergyConsumptionResURI",
                  "rel": "contains",
                  "rt": ["oic.r.energy.consumption"],
                  "if": ["oic.if.s"],
                  "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
                }
              ]
            }
          }
        },
        "schema": { "$ref": "#/definitions/Usage" }
      }
    }
  }
}
```

```

21139     }
21140   },
21141   "parameters": {
21142     "interface" : {
21143       "in" : "query",
21144       "name" : "if",
21145       "type" : "string",
21146       "enum" : ["oic.if.ll", "oic.if.b", "oic.if.baseline"]
21147     }
21148   },
21149   "definitions": {
21150     "Usage" :
21151     {
21152       "properties": {
21153         "id": {
21154           "description": "Instance ID of this specific resource",
21155           "maxLength": 64,
21156           "readOnly": true,
21157           "type": "string"
21158         },
21159         "if": {
21160           "description": "The interface set supported by this resource",
21161           "items": {
21162             "enum": [
21163               "oic.if.baseline",
21164               "oic.if.ll",
21165               "oic.if.b",
21166               "oic.if.lb",
21167               "oic.if.rw",
21168               "oic.if.x",
21169               "oic.if.a",
21170               "oic.if.s"
21171             ],
21172             "type": "string"
21173           },
21174           "minItems": 1,
21175           "readOnly": true,
21176           "type": "array"
21177         },
21178         "n": {
21179           "description": "Friendly name of the resource",
21180           "maxLength": 64,
21181           "readOnly": true,
21182           "type": "string"
21183         },
21184         "precision": {
21185           "description": "Accuracy granularity of the exposed value",
21186           "readOnly": true,
21187           "type": "number"
21188         },
21189         "range": {
21190           "description": "The valid range for the value Property",
21191           "items": {
21192             "anyOf": [
21193               {
21194                 "type": "number"
21195               },
21196               {
21197                 "type": "integer"
21198               }
21199             ]
21200           },
21201           "maxItems": 2,
21202           "minItems": 2,
21203           "readOnly": true,
21204           "type": "array"
21205         },
21206         "resources": {
21207           "items": {
21208             "properties": {
21209               "anchor": {

```

```

21210         "description": "This is used to override the context URI e.g. override the URI of
21211 the containing collection",
21212         "format": "uri",
21213         "maxLength": 256,
21214         "type": "string"
21215     },
21216     "di": {
21217         "description": "Unique identifier for device (UUID)",
21218         "pattern": "[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-
21219 F0-9]{12}$",
21220         "type": "string"
21221     },
21222     "eps": {
21223         "description": "the Endpoint information of the target Resource",
21224         "items": {
21225             "properties": {
21226                 "ep": {
21227                     "description": "URI with Transport Protocol Suites + Endpoint Locator as
21228 specified in 10.2.1",
21229                     "format": "uri",
21230                     "type": "string"
21231                 },
21232                 "pri": {
21233                     "description": "The priority among multiple Endpoints as specified in
21234 10.2.3",
21235                     "minimum": 1,
21236                     "type": "integer"
21237                 }
21238             },
21239             "type": "object"
21240         },
21241         "type": "array"
21242     },
21243     "href": {
21244         "description": "This is the target URI, it can be specified as a Relative
21245 Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to
21246 make it unique.",
21247         "format": "uri",
21248         "maxLength": 256,
21249         "type": "string"
21250     },
21251     "if": {
21252         "description": "The interface set supported by this resource",
21253         "items": {
21254             "enum": [
21255                 "oic.if.baseline",
21256                 "oic.if.ll",
21257                 "oic.if.b",
21258                 "oic.if.rw",
21259                 "oic.if.r",
21260                 "oic.if.a",
21261                 "oic.if.s"
21262             ],
21263             "type": "string"
21264         },
21265         "minItems": 1,
21266         "type": "array"
21267     },
21268     "ins": {
21269         "description": "The instance identifier for this web link in an array of web
21270 links - used in collections",
21271         "oneOf": [
21272             {
21273                 "description": "An ordinal number that is not repeated - must be unique in
21274 the collection context",
21275                 "type": "integer"
21276             },
21277             {
21278                 "description": "Any unique string including a URI",
21279                 "format": "uri",
21280                 "maxLength": 256,

```



```

21281         "type": "string"
21282     },
21283     {
21284         "description": "Unique identifier (UUID)",
21285         "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-
21286 fA-F0-9]{12}$",
21287         "type": "string"
21288     }
21289 ],
21290 },
21291 "p": {
21292     "description": "Specifies the framework policies on the Resource referenced by
21293 the target URI",
21294     "properties": {
21295         "bm": {
21296             "description": "Specifies the framework policies on the Resource referenced
21297 by the target URI for e.g. observable and discoverable",
21298             "type": "integer"
21299         }
21300     },
21301     "required": [
21302         "bm"
21303     ],
21304     "type": "object"
21305 },
21306 "rel": {
21307     "description": "The relation of the target URI referenced by the link to the
21308 context URI",
21309     "oneOf": [
21310         {
21311             "default": [
21312                 "hosts"
21313             ],
21314             "items": {
21315                 "maxLength": 64,
21316                 "type": "string"
21317             },
21318             "minItems": 1,
21319             "type": "array"
21320         },
21321         {
21322             "default": "hosts",
21323             "maxLength": 64,
21324             "type": "string"
21325         }
21326     ]
21327 },
21328 "rt": {
21329     "description": "Resource Type",
21330     "items": {
21331         "maxLength": 64,
21332         "type": "string"
21333     },
21334     "minItems": 1,
21335     "type": "array"
21336 },
21337 "title": {
21338     "description": "A title for the link relation. Can be used by the UI to provide a
21339 context",
21340     "maxLength": 64,
21341     "type": "string"
21342 },
21343 "type": {
21344     "default": "application/cbor",
21345     "description": "A hint at the representation of the resource referenced by the
21346 target URI. This represents the media types that are used for both accepting and emitting",
21347     "items": {
21348         "maxLength": 64,
21349         "type": "string"
21350     },
21351     "minItems": 1,

```

```

21352         "type": "array"
21353     }
21354 },
21355     "required": [
21356         "href",
21357         "rt",
21358         "if"
21359     ],
21360     "type": "object"
21361 },
21362     "maxItems": 2,
21363     "minItems": 2,
21364     "type": "array"
21365 },
21366     "rt": {
21367         "description": "Resource Type",
21368         "items": {
21369             "maxLength": 64,
21370             "type": "string"
21371         },
21372         "minItems": 1,
21373         "readOnly": true,
21374         "type": "array"
21375     },
21376     "step": {
21377         "anyOf": [
21378             {
21379                 "type": "integer"
21380             },
21381             {
21382                 "type": "number"
21383             }
21384         ],
21385         "description": "Step value across the defined range",
21386         "readOnly": true
21387     },
21388     "value": {
21389         "anyOf": [
21390             {
21391                 "type": "array"
21392             },
21393             {
21394                 "type": "string"
21395             },
21396             {
21397                 "type": "boolean"
21398             },
21399             {
21400                 "type": "integer"
21401             },
21402             {
21403                 "type": "number"
21404             },
21405             {
21406                 "type": "object"
21407             }
21408         ],
21409         "description": "The value sensed or actuated by this Resource"
21410     }
21411 },
21412     "type": "object"
21413 }
21414 }
21415 }
21416 }
21417

```

#### 21418 B.34.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

rt	array: see schema	yes	Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
resources	array: see schema			
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property
if	array: see schema	yes	Read Only	The interface set supported by this resource

#### 21419 B.34.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/EnergyUsageResURI		get			

#### 21420 B.35 Generic Sensor

##### 21421 B.35.1 Introduction

21422 This resource describes whether some value or property or entity has been sensed or not.  
21423 The value is a boolean.  
21424 A value of 'true' means that the target has been sensed.  
21425 A value of 'false' means that the target has not been sensed.  
21426

##### 21427 B.35.2 Example URI

21428 /GenericSensorResURI

##### 21429 B.35.3 Resource Type

21430 The resource type (rt) is defined as: ['oic.r.sensor'].

##### 21431 B.35.4 Swagger2.0 Definition

```

21432 {
21433   "swagger": "2.0",
21434   "info": {
21435     "title": "Generic Sensor",
21436     "version": "v1.1.0-20160519",
21437     "license": {
21438       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
21439       "x-description": "Redistribution and use in source and binary forms, with or without
21440 modification, are permitted provided that the following conditions are met:\n      1.
21441 Redistributions of source code must retain the above copyright notice, this list of conditions and
21442 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
21443 copyright notice, this list of conditions and the following disclaimer in the documentation and/or

```

```

21444 other materials provided with the distribution.\n\n          THIS SOFTWARE IS PROVIDED BY THE Open
21445 Connectivity Foundation, INC. \ "AS IS\ " AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
21446 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
21447 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n          IN NO EVENT SHALL THE Open Connectivity
21448 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
21449 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
21450 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
21451 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
21452 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
21453 OF SUCH DAMAGE.\n"
21454     }
21455   },
21456   "schemes": ["http"],
21457   "consumes": ["application/json"],
21458   "produces": ["application/json"],
21459   "paths": {
21460     "/GenericSensorResURI" : {
21461       "get": {
21462         "description": "This resource describes whether some value or property or entity has been
21463 sensed or not.\nThe value is a boolean.\nA value of 'true' means that the target has been
21464 sensed.\nA value of 'false' means that the target has not been sensed.\n",
21465         "parameters": [
21466           { "$ref": "#/parameters/interface" }
21467         ],
21468         "responses": {
21469           "200": {
21470             "description": "",
21471             "x-example": {
21472               {
21473                 "rt": ["oic.r.sensor"],
21474                 "id": "unique_example_id",
21475                 "value": true
21476               }
21477             },
21478             "schema": { "$ref": "#/definitions/Sensor" }
21479           }
21480         }
21481       }
21482     }
21483   },
21484   "parameters": {
21485     "interface" : {
21486       "in" : "query",
21487       "name" : "if",
21488       "type" : "string",
21489       "enum" : ["oic.if.s", "oic.if.baseline"]
21490     }
21491   },
21492   "definitions": {
21493     "Sensor" :
21494     {
21495       "properties": {
21496         "id": {
21497           "description": "Instance ID of this specific resource",
21498           "maxLength": 64,
21499           "readOnly": true,
21500           "type": "string"
21501         },
21502         "if": {
21503           "description": "The interface set supported by this resource",
21504           "items": {
21505             "enum": [
21506               "oic.if.baseline",
21507               "oic.if.ll",
21508               "oic.if.b",
21509               "oic.if.lb",
21510               "oic.if.rw",
21511               "oic.if.r",
21512               "oic.if.a",
21513               "oic.if.s"
21514             ]

```

```

21515         "type": "string"
21516     },
21517     "minItems": 1,
21518     "readOnly": true,
21519     "type": "array"
21520 },
21521 "n": {
21522     "description": "Friendly name of the resource",
21523     "maxLength": 64,
21524     "readOnly": true,
21525     "type": "string"
21526 },
21527 "precision": {
21528     "description": "Accuracy granularity of the exposed value",
21529     "readOnly": true,
21530     "type": "number"
21531 },
21532 "range": {
21533     "description": "The valid range for the value Property",
21534     "items": {
21535         "anyOf": [
21536             {
21537                 "type": "number"
21538             },
21539             {
21540                 "type": "integer"
21541             }
21542         ]
21543     },
21544     "maxItems": 2,
21545     "minItems": 2,
21546     "readOnly": true,
21547     "type": "array"
21548 },
21549 "rt": {
21550     "description": "Resource Type",
21551     "items": {
21552         "maxLength": 64,
21553         "type": "string"
21554     },
21555     "minItems": 1,
21556     "readOnly": true,
21557     "type": "array"
21558 },
21559 "step": {
21560     "anyOf": [
21561         {
21562             "type": "integer"
21563         },
21564         {
21565             "type": "number"
21566         }
21567     ],
21568     "description": "Step value across the defined range",
21569     "readOnly": true
21570 },
21571 "value": {
21572     "description": "true = sensed, false = not sensed.",
21573     "readOnly": true,
21574     "type": "boolean"
21575 }
21576 },
21577 "type": "object"
21578 }
21579 }
21580 }
21581 }
21582

```

21583 **B.35.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property
value	boolean		Read Only	true = sensed, false = not sensed.
n	string		Read Only	Friendly name of the resource

21584 **B.35.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/GenericSensorResURI		get			

21585 **B.36 Geolocation**

21586 **B.36.1 Introduction**

21587 This resource describes the properties associated with the current geolocation coordinate.  
21588 Geolocation is a geolocation coordinate data.  
21589 Latitude is a device's current Latitude coordinate (degrees).  
21590 Longitude is a device's current Longitude coordinate (degrees).  
21591 Altitude is a device's current Altitude position (metres).  
21592 Accuracy is the accuracy level of the latitude and longitude coordinates (metres).  
21593 altitudeAccuracy is the accuracy level of the altitude coordinates (metres).  
21594 heading is a direction of travel of device (degree).  
21595 speed is a device's current velocity (metres per second).  
21596 Retrieves the current geolocation coordinates.  
21597

21598 **B.36.2 Example URI**

21599 /GeolocationResURI

21600 **B.36.3 Resource Type**

21601 The resource type (rt) is defined as: ['oic.r.sensor.geolocation'].

21602 **B.36.4 Swagger2.0 Definition**

21603 {  
21604 "swagger": "2.0",  
21605 "info": {  
21606 "title": "Geolocation",  
21607 "version": "v1.1.0-20160519",

```

21608     "license": {
21609         "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
21610         "x-description": "Redistribution and use in source and binary forms, with or without
21611 modification, are permitted provided that the following conditions are met:\n        1.
21612 Redistributions of source code must retain the above copyright notice, this list of conditions and
21613 the following disclaimer.\n        2. Redistributions in binary form must reproduce the above
21614 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
21615 other materials provided with the distribution.\n\n        THIS SOFTWARE IS PROVIDED BY THE Open
21616 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
21617 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
21618 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n        IN NO EVENT SHALL THE Open Connectivity
21619 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
21620 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
21621 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n        HOWEVER CAUSED AND
21622 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
21623 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
21624 OF SUCH DAMAGE.\n"
21625     }
21626 },
21627 "schemes": ["http"],
21628 "consumes": ["application/json"],
21629 "produces": ["application/json"],
21630 "paths": {
21631     "/GeolocationResURI" : {
21632         "get": {
21633             "description": "This resource describes the properties associated with the current
21634 geolocation coordinate.\nGeolocation is a geolocation coordinate data.\nLatitude is a device's
21635 current Latitude coordinate (degrees).\nLongitude is a device's current Longitude coordinate
21636 (degrees).\nAltitude is a device's current Altitude position (metres).\nAccuracy is the accuracy
21637 level of the latitude and longitude coordinates (metres).\naltitudeAccuracy is the accuracy level
21638 of the altitude coordinates (metres).\nheading is a direction of travel of device (degree).\nspeed
21639 is a device's current velocity (metres per second).\nRetrieves the current geolocation
21640 coordinates.\n",
21641             "parameters": [
21642                 { "$ref": "#/parameters/interface" }
21643             ],
21644             "responses": {
21645                 "200": {
21646                     "description": "",
21647                     "x-example": {
21648                         {
21649                             "rt": ["oic.r.sensor.geolocation"],
21650                             "id": "unique_example_id",
21651                             "latitude": 55.070859,
21652                             "longitude": -3.60512,
21653                             "alt": 12.07,
21654                             "accuracy": 65.0,
21655                             "altitudeAccuracy": 0.0,
21656                             "heading": 90.0,
21657                             "speed": 0.0
21658                         }
21659                     },
21660                     "schema": { "$ref": "#/definitions/Geolocation" }
21661                 }
21662             }
21663         }
21664     }
21665 },
21666 "parameters": {
21667     "interface" : {
21668         "in" : "query",
21669         "name" : "if",
21670         "type" : "string",
21671         "enum" : ["oic.if.s", "oic.if.baseline"]
21672     }
21673 },
21674 "definitions": {
21675     "Geolocation" : {
21676         {
21677             "properties": {
21678                 "accuracy": {

```

```

21679         "description": "The accuracy level of the latitude and longitude coordinates (metres)",
21680         "minimum": 0,
21681         "readOnly": true,
21682         "type": "number"
21683     },
21684     "alt": {
21685         "description": "The current height of the position (metres)",
21686         "minimum": 0,
21687         "readOnly": true,
21688         "type": "number"
21689     },
21690     "altitudeAccuracy": {
21691         "description": "The accuracy level of the altitude coordinates (metres)",
21692         "minimum": 0,
21693         "readOnly": true,
21694         "type": "number"
21695     },
21696     "heading": {
21697         "description": "Direction of travel of device (degree)",
21698         "maximum": 360,
21699         "minimum": 0,
21700         "readOnly": true,
21701         "type": "number"
21702     },
21703     "id": {
21704         "description": "Instance ID of this specific resource",
21705         "maxLength": 64,
21706         "readOnly": true,
21707         "type": "string"
21708     },
21709     "if": {
21710         "description": "The interface set supported by this resource",
21711         "items": {
21712             "enum": [
21713                 "oic.if.baseline",
21714                 "oic.if.ll",
21715                 "oic.if.b",
21716                 "oic.if.lb",
21717                 "oic.if.rw",
21718                 "oic.if.r",
21719                 "oic.if.a",
21720                 "oic.if.s"
21721             ],
21722             "type": "string"
21723         },
21724         "minItems": 1,
21725         "readOnly": true,
21726         "type": "array"
21727     },
21728     "latitude": {
21729         "description": "Device's Current Latitude coordinate (degrees)",
21730         "readOnly": true,
21731         "type": "number"
21732     },
21733     "longitude": {
21734         "description": "Device's Current Longitude coordinate (degrees)",
21735         "readOnly": true,
21736         "type": "number"
21737     },
21738     "n": {
21739         "description": "Friendly name of the resource",
21740         "maxLength": 64,
21741         "readOnly": true,
21742         "type": "string"
21743     },
21744     "precision": {
21745         "description": "Accuracy granularity of the exposed value",
21746         "readOnly": true,
21747         "type": "number"
21748     },
21749     "range": {

```



```

21750         "description": "The valid range for the value Property",
21751         "items": {
21752             "anyOf": [
21753                 {
21754                     "type": "number"
21755                 },
21756                 {
21757                     "type": "integer"
21758                 }
21759             ]
21760         },
21761         "maxItems": 2,
21762         "minItems": 2,
21763         "readOnly": true,
21764         "type": "array"
21765     },
21766     "rt": {
21767         "description": "Resource Type",
21768         "items": {
21769             "maxLength": 64,
21770             "type": "string"
21771         },
21772         "minItems": 1,
21773         "readOnly": true,
21774         "type": "array"
21775     },
21776     "speed": {
21777         "description": "Device's current velocity (metres per second)",
21778         "minimum": 0,
21779         "readOnly": true,
21780         "type": "number"
21781     },
21782     "step": {
21783         "anyOf": [
21784             {
21785                 "type": "integer"
21786             },
21787             {
21788                 "type": "number"
21789             }
21790         ],
21791         "description": "Step value across the defined range",
21792         "readOnly": true
21793     },
21794     "value": {
21795         "anyOf": [
21796             {
21797                 "type": "array"
21798             },
21799             {
21800                 "type": "string"
21801             },
21802             {
21803                 "type": "boolean"
21804             },
21805             {
21806                 "type": "integer"
21807             },
21808             {
21809                 "type": "number"
21810             },
21811             {
21812                 "type": "object"
21813             }
21814         ],
21815         "description": "The value sensed or actuated by this Resource"
21816     }
21817 },
21818 "required": [
21819     "latitude",
21820     "longitude",

```

```

21821         "alt"
21822     ],
21823     "type": "object"
21824 }
21825
21826 }
21827 }
21828

```

### B.36.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
accuracy	number		Read Only	The accuracy level of the latitude and longitude coordinates (metres)
heading	number		Read Only	Direction of travel of device (degree)
id	string		Read Only	Instance ID of this specific resource
alt	number	yes	Read Only	The current height of the position (metres)
value	multiple types: see schema			The value sensed or actuated by this Resource
latitude	number	yes	Read Only	Device's Current Latitude coordinate (degrees)
range	array: see schema		Read Only	The valid range for the value Property
altitudeAccuracy	number		Read Only	The accuracy level of the altitude coordinates (metres)
rt	array: see schema		Read Only	Resource Type
speed	number		Read Only	Device's current velocity (metres per second)
step	multiple types: see schema		Read Only	Step value across the defined range
longitude	number	yes	Read Only	Device's Current Longitude coordinate (degrees)
if	array: see schema		Read Only	The interface set supported by this resource

precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource

### B.36.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/GeolocationResURI		get			

## B.37 Glass Break Sensor

### B.37.1 Introduction

This resource describes a glass break sensor. The value is a boolean. A value of 'true' means that glass break has been sensed. A value of 'false' means that glass break not been sensed.

### B.37.2 Example URI

/GlassBreakResURI

### B.37.3 Resource Type

The resource type (rt) is defined as: ['oic.r.sensor.glassbreak'].

### B.37.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Glass Break Sensor",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/GlassBreakResURI" : {
      "get": {
        "description": "This resource describes a glass break sensor.\nThe value is a boolean.\nA
value of 'true' means that glass break has been sensed.\nA value of 'false' means that glass break
not been sensed.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
```

```

21881         "description" : "",
21882         "x-example":
21883         {
21884             "rt":      ["oic.r.sensor.glassbreak"],
21885             "id":      "unique_example_id",
21886             "value":   true
21887         }
21888     },
21889     "schema": { "$ref": "#/definitions/GlassBreak" }
21890 }
21891 }
21892 }
21893 },
21894 },
21895 "parameters": {
21896     "interface" : {
21897         "in" : "query",
21898         "name" : "if",
21899         "type" : "string",
21900         "enum" : ["oic.if.s", "oic.if.baseline"]
21901     }
21902 },
21903 "definitions": {
21904     "GlassBreak" :
21905     {
21906         "properties": {
21907             "id": {
21908                 "description": "Instance ID of this specific resource",
21909                 "maxLength": 64,
21910                 "readOnly": true,
21911                 "type": "string"
21912             },
21913             "if": {
21914                 "description": "The interface set supported by this resource",
21915                 "items": {
21916                     "enum": [
21917                         "oic.if.baseline",
21918                         "oic.if.ll",
21919                         "oic.if.b",
21920                         "oic.if.lb",
21921                         "oic.if.rw",
21922                         "oic.if.r",
21923                         "oic.if.a",
21924                         "oic.if.s"
21925                     ],
21926                     "type": "string"
21927                 },
21928                 "minItems": 1,
21929                 "readOnly": true,
21930                 "type": "array"
21931             },
21932             "n": {
21933                 "description": "Friendly name of the resource",
21934                 "maxLength": 64,
21935                 "readOnly": true,
21936                 "type": "string"
21937             },
21938             "precision": {
21939                 "description": "Accuracy granularity of the exposed value",
21940                 "readOnly": true,
21941                 "type": "number"
21942             },
21943             "range": {
21944                 "description": "The valid range for the value Property",
21945                 "items": {
21946                     "anyOf": [
21947                         {
21948                             "type": "number"
21949                         },
21950                         {
21951                             "type": "integer"

```

```

21952         }
21953     ]
21954 },
21955 "maxItems": 2,
21956 "minItems": 2,
21957 "readOnly": true,
21958 "type": "array"
21959 },
21960 "rt": {
21961     "description": "Resource Type",
21962     "items": {
21963         "maxLength": 64,
21964         "type": "string"
21965     },
21966     "minItems": 1,
21967     "readOnly": true,
21968     "type": "array"
21969 },
21970 "step": {
21971     "anyOf": [
21972         {
21973             "type": "integer"
21974         },
21975         {
21976             "type": "number"
21977         }
21978     ],
21979     "description": "Step value across the defined range",
21980     "readOnly": true
21981 },
21982 "value": {
21983     "description": "true = sensed, false = not sensed.",
21984     "readOnly": true,
21985     "type": "boolean"
21986 },
21987 },
21988 "required": [
21989     "value"
21990 ],
21991 "type": "object"
21992 }
21993 }
21994 }
21995 }
21996

```

### B.37.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	true = sensed, false = not sensed.
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource

precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource

## 21998 B.37.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/GlassBreakResURI		get			

## 21999 B.38 Heart Rate Zone

### 22000 B.38.1 Introduction

22001 This resource describes a measured heart rate by the current Zone using the Zoladz method  
 22002 The Zoladz method defines Zones based on maximum heart rate; Zone 1 is the lowest, Zone 5 is  
 22003 the highest.  
 22004 The heartRateZone is an enumeration containing one of: "Zone1", "Zone2", "Zone3", "Zone4",  
 22005 "Zone5".  
 22006

### 22007 B.38.2 Example URI

22008 /HeartRateZoneResURI

### 22009 B.38.3 Resource Type

22010 The resource type (rt) is defined as: ['oic.r.sensor.heart.zone'].

### 22011 B.38.4 Swagger2.0 Definition

```

22012 {
22013   "swagger": "2.0",
22014   "info": {
22015     "title": "Heart Rate Zone",
22016     "version": "v1.1.0-20160519",
22017     "license": {
22018       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
22019       "x-description": "Redistribution and use in source and binary forms, with or without
22020 modification, are permitted provided that the following conditions are met:\n      1.
22021 Redistributions of source code must retain the above copyright notice, this list of conditions and
22022 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
22023 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
22024 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
22025 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
22026 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
22027 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
22028 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
22029 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
22030 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
22031 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
22032 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
22033 OF SUCH DAMAGE.\n"
22034     }
22035   },
22036   "schemes": ["http"],
22037   "consumes": ["application/json"],
22038   "produces": ["application/json"],
22039   "paths": {
22040     "/HeartRateZoneResURI" : {
22041       "get": {
22042         "description": "This resource describes a measured heart rate by the current Zone using the
22043 Zoladz method\nThe Zoladz method defines Zones based on maximum heart rate; Zone 1 is the lowest,
22044 Zone 5 is the highest.\nThe heartRateZone is an enumeration containing one of: \"Zone1\",
22045 \"Zone2\", \"Zone3\", \"Zone4\", \"Zone5\".\n",
22046         "parameters": [

```

```

22047         {"$ref": "#/parameters/interface"}
22048     ],
22049     "responses": {
22050         "200": {
22051             "description": "",
22052             "x-example":
22053                 {
22054                     "rt": ["oic.r.sensor.heart.zone"],
22055                     "id": "unique_example_id",
22056                     "heartRateZone": "Zone3"
22057                 },
22058             "schema": { "$ref": "#/definitions/heartRateZone" }
22059         }
22060     }
22061 }
22062 }
22063 }
22064 },
22065 "parameters": {
22066     "interface": {
22067         "in": "query",
22068         "name": "if",
22069         "type": "string",
22070         "enum": ["oic.if.s", "oic.if.baseline"]
22071     }
22072 },
22073 "definitions": {
22074     "heartRateZone":
22075         {
22076             "properties": {
22077                 "heartRateZone": {
22078                     "description": "Current heart rate zone based on the Zoladz system.",
22079                     "enum": [
22080                         "Zone1",
22081                         "Zone2",
22082                         "Zone3",
22083                         "Zone4",
22084                         "Zone5"
22085                     ],
22086                     "readOnly": true
22087                 },
22088                 "id": {
22089                     "description": "Instance ID of this specific resource",
22090                     "maxLength": 64,
22091                     "readOnly": true,
22092                     "type": "string"
22093                 },
22094                 "if": {
22095                     "description": "The interface set supported by this resource",
22096                     "items": {
22097                         "enum": [
22098                             "oic.if.baseline",
22099                             "oic.if.ll",
22100                             "oic.if.b",
22101                             "oic.if.lb",
22102                             "oic.if.rw",
22103                             "oic.if.r",
22104                             "oic.if.a",
22105                             "oic.if.s"
22106                         ],
22107                         "type": "string"
22108                     },
22109                     "minItems": 1,
22110                     "readOnly": true,
22111                     "type": "array"
22112                 },
22113                 "n": {
22114                     "description": "Friendly name of the resource",
22115                     "maxLength": 64,
22116                     "readOnly": true,
22117                     "type": "string"

```

```

22118 },
22119 "precision": {
22120   "description": "Accuracy granularity of the exposed value",
22121   "readOnly": true,
22122   "type": "number"
22123 },
22124 "range": {
22125   "description": "The valid range for the value Property",
22126   "items": {
22127     "anyOf": [
22128       {
22129         "type": "number"
22130       },
22131       {
22132         "type": "integer"
22133       }
22134     ]
22135   },
22136   "maxItems": 2,
22137   "minItems": 2,
22138   "readOnly": true,
22139   "type": "array"
22140 },
22141 "rt": {
22142   "description": "Resource Type",
22143   "items": {
22144     "maxLength": 64,
22145     "type": "string"
22146   },
22147   "minItems": 1,
22148   "readOnly": true,
22149   "type": "array"
22150 },
22151 "step": {
22152   "anyOf": [
22153     {
22154       "type": "integer"
22155     },
22156     {
22157       "type": "number"
22158     }
22159   ],
22160   "description": "Step value across the defined range",
22161   "readOnly": true
22162 },
22163 "value": {
22164   "anyOf": [
22165     {
22166       "type": "array"
22167     },
22168     {
22169       "type": "string"
22170     },
22171     {
22172       "type": "boolean"
22173     },
22174     {
22175       "type": "integer"
22176     },
22177     {
22178       "type": "number"
22179     },
22180     {
22181       "type": "object"
22182     }
22183   ],
22184   "description": "The value sensed or actuated by this Resource"
22185 }
22186 },
22187 "required": [
22188   "heartRateZone"

```



22189        ] }  
 22190        }  
 22191        }  
 22192        }  
 22193        }  
 22194

22195 **B.38.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
n	string		Read Only	Friendly name of the resource
heartRateZone	multiple types: see schema	yes	Read Only	Current heart rate zone based on the Zoladz system.
range	array: see schema		Read Only	The valid range for the value Property
if	array: see schema		Read Only	The interface set supported by this resource
precision	number		Read Only	Accuracy granularity of the exposed value

22196 **B.38.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/HeartRateZoneResURI		get			

22197 **B.39 Heating Zone**

22198 **B.39.1 Introduction**

22199 This Resource provides information about the status of a heating zone of a Cook-Top.  
 22200 It describes the case of a Cook-Top whose zones can be activated dynamically (i.e. the device  
 22201 implements pot recognition).  
 22202 maxheatinglevel defines the max level for the heating zone  
 22203 heatinglevel is the current heating level of the zone  
 22204 For each element the value range is from 0 (indication that the zone is not heating) to  
 22205 maxheatinglevel,  
 22206 Retrieves the current heating zone information.  
 22207

22208 **B.39.2 Example URI**

22209 /HeatingZoneResURI

### 22210 B.39.3 Resource Type

22211 The resource type (rt) is defined as: ['oic.r.heatingzone'].

### 22212 B.39.4 Swagger2.0 Definition

```
22213 {
22214   "swagger": "2.0",
22215   "info": {
22216     "title": "Heating Zone",
22217     "version": "OCF1.0-20160722",
22218     "license": {
22219       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
22220       "x-description": "Redistribution and use in source and binary forms, with or without
22221 modification, are permitted provided that the following conditions are met:\n      1.
22222 Redistributions of source code must retain the above copyright notice, this list of conditions and
22223 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
22224 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
22225 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
22226 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
22227 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
22228 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
22229 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
22230 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
22231 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
22232 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
22233 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
22234 OF SUCH DAMAGE.\n"
22235     },
22236   },
22237   "schemes": ["http"],
22238   "consumes": ["application/json"],
22239   "produces": ["application/json"],
22240   "paths": {
22241     "/HeatingZoneResURI" : {
22242       "get": {
22243         "description": "This Resource provides information about the status of a heating zone of a
22244 Cook-Top.\nIt describes the case of a Cook-Top whose zones can be activated dynamically (i.e. the
22245 device implements pot recognition).\nmaxheatinglevel defines the max level for the heating
22246 zone\nheatinglevel is the current heating level of the zone\n For each element the value range is
22247 from 0 (indication that the zone is not heating) to maxheatinglevel,\nRetrieves the current heating
22248 zone information.\n",
22249         "parameters": [
22250           { "$ref": "#/parameters/interface" }
22251         ],
22252         "responses": {
22253           "200": {
22254             "description": "",
22255             "x-example":
22256               {
22257                 "rt": ["oic.r.heatingzone"],
22258                 "id": "unique_example_id",
22259                 "maxheatinglevel": 6,
22260                 "heatinglevel": 0
22261               },
22262             "schema": { "$ref": "#/definitions/HeatingZone" }
22263           }
22264         }
22265       }
22266     }
22267   },
22268   "parameters": {
22269     "interface" : {
22270       "in" : "query",
22271       "name" : "if",
22272       "type" : "string",
22273       "enum" : ["oic.if.s", "oic.if.baseline"]
22274     }
22275   },
22276   "definitions": {
22277     "HeatingZone" :
```

```

22279     {
22280     "properties": {
22281         "heatinglevel": {
22282             "description": "Current heating level for the zone indicated.",
22283             "readOnly": true,
22284             "type": "integer"
22285         },
22286         "id": {
22287             "description": "Instance ID of this specific resource",
22288             "maxLength": 64,
22289             "readOnly": true,
22290             "type": "string"
22291         },
22292         "if": {
22293             "description": "The interface set supported by this resource",
22294             "items": {
22295                 "enum": [
22296                     "oic.if.baseline",
22297                     "oic.if.ll",
22298                     "oic.if.b",
22299                     "oic.if.lb",
22300                     "oic.if.rw",
22301                     "oic.if.r",
22302                     "oic.if.a",
22303                     "oic.if.s"
22304                 ],
22305                 "type": "string"
22306             },
22307             "minItems": 1,
22308             "readOnly": true,
22309             "type": "array"
22310         },
22311         "maxheatinglevel": {
22312             "description": "Maximum heating level for the zone indicated.",
22313             "readOnly": true,
22314             "type": "integer"
22315         },
22316         "n": {
22317             "description": "Friendly name of the resource",
22318             "maxLength": 64,
22319             "readOnly": true,
22320             "type": "string"
22321         },
22322         "precision": {
22323             "description": "Accuracy granularity of the exposed value",
22324             "readOnly": true,
22325             "type": "number"
22326         },
22327         "range": {
22328             "description": "The valid range for the value Property",
22329             "items": {
22330                 "anyOf": [
22331                     {
22332                         "type": "number"
22333                     },
22334                     {
22335                         "type": "integer"
22336                     }
22337                 ]
22338             },
22339             "maxItems": 2,
22340             "minItems": 2,
22341             "readOnly": true,
22342             "type": "array"
22343         },
22344         "rt": {
22345             "description": "Resource Type",
22346             "items": {
22347                 "maxLength": 64,
22348                 "type": "string"
22349             },

```

```

22350         "minItems": 1,
22351         "readOnly": true,
22352         "type": "array"
22353     },
22354     "step": {
22355         "anyOf": [
22356             {
22357                 "type": "integer"
22358             },
22359             {
22360                 "type": "number"
22361             }
22362         ],
22363         "description": "Step value across the defined range",
22364         "readOnly": true
22365     },
22366     "value": {
22367         "anyOf": [
22368             {
22369                 "type": "array"
22370             },
22371             {
22372                 "type": "string"
22373             },
22374             {
22375                 "type": "boolean"
22376             },
22377             {
22378                 "type": "integer"
22379             },
22380             {
22381                 "type": "number"
22382             },
22383             {
22384                 "type": "object"
22385             }
22386         ],
22387         "description": "The value sensed or actuated by this Resource"
22388     }
22389 },
22390 "required": [
22391     "maxheatinglevel",
22392     "heatinglevel"
22393 ],
22394 "type": "object"
22395 }
22396
22397 }
22398 }
22399

```

### B.39.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
maxheatinglevel	integer	yes	Read Only	Maximum heating level for the zone indicated.
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type

range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
heatinglevel	integer	yes	Read Only	Current heating level for the zone indicated.
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource

## 22401 B.39.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/HeatingZoneResURI		get			

## 22402 B.40 Heating Zone Collection

### 22403 B.40.1 Introduction

22404 This Resource provides information about the status of the heating zones of a Cook-Top.  
 22405 It describes the case of a Cook-Top whose zones can be activated dynamically (i.e. the device  
 22406 implements pot recognition).  
 22407 The resource is a collection of instances of oic.r.heatingzone detailing the individual cooktop zones  
 22408 Retrieves the current heating zone information.  
 22409

### 22410 B.40.2 Example URI

22411 /HeatingZoneBaselineResURI

### 22412 B.40.3 Resource Type

22413 The resource type (rt) is defined as: ['oic.r.heatingzonecollection', 'oic.wk.col'].

### 22414 B.40.4 Swagger2.0 Definition

```

22415 {
22416   "swagger": "2.0",
22417   "info": {
22418     "title": "Heating Zone Collection",
22419     "version": "OCF1.0-20160722",
22420     "license": {
22421       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
22422       "x-description": "Redistribution and use in source and binary forms, with or without
22423 modification, are permitted provided that the following conditions are met:\n      1.
22424 Redistributions of source code must retain the above copyright notice, this list of conditions and
22425 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
22426 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
22427 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open
22428 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
22429 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
22430 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
22431 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
22432 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
22433 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
22434 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
```

```

22435 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
22436 OF SUCH DAMAGE.\n"
22437 }
22438 },
22439 "schemes": ["http"],
22440 "consumes": ["application/json"],
22441 "produces": ["application/json"],
22442 "paths": {
22443   "/HeatingZoneLLResURI" : {
22444     "get": {
22445       "description": "This Resource provides information about the status of the heating zones of
22446 a Cook-Top.\nIt describes the case of a Cook-Top whose zones can be activated dynamically (i.e. the
22447 device implements pot recognition).\nThe resource is a collection of instances of oic.r.heatingzone
22448 detailing the individual cooktop zones\n",
22449       "parameters": [
22450         {"$ref": "#/parameters/interface-11"}
22451       ],
22452       "responses": {
22453         "200": {
22454           "description": "",
22455           "x-example":
22456             [
22457               {
22458                 "href": "/myZone1ResURI", "rt": ["oic.r.heatingzone"], "if": ["oic.if.s"],
22459                 "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}],
22460                 "href": "/myZone2ResURI", "rt": ["oic.r.heatingzone"], "if": ["oic.if.s"],
22461                 "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}],
22462                 "href": "/myZone3ResURI", "rt": ["oic.r.heatingzone"], "if": ["oic.if.s"],
22463                 "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}],
22464                 "href": "/myZone4ResURI", "rt": ["oic.r.heatingzone"], "if": ["oic.if.s"],
22465                 "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
22466               },
22467               "schema": { "$ref": "#/definitions/HeatingZone-11" }
22468             ]
22469         }
22470       }
22471     },
22472     "/HeatingZoneBaselineResURI" : {
22473       "get": {
22474         "description": "This Resource provides information about the status of the heating zones of
22475 a Cook-Top.\nIt describes the case of a Cook-Top whose zones can be activated dynamically (i.e. the
22476 device implements pot recognition).\nThe resource is a collection of instances of oic.r.heatingzone
22477 detailing the individual cooktop zones\nRetrieves the current heating zone information.\n",
22478         "parameters": [
22479           {"$ref": "#/parameters/interface-baseline"}
22480         ],
22481         "responses": {
22482           "200": {
22483             "description": "",
22484             "x-example":
22485               {
22486                 "rt": ["oic.r.heatingzonecollection", "oic.wk.col"],
22487                 "id": "unique_example_id",
22488                 "links": [
22489                   {
22490                     "href": "/myZone1ResURI", "rt": ["oic.r.heatingzone"], "if":
22491 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}],
22492                     "href": "/myZone2ResURI", "rt": ["oic.r.heatingzone"], "if":
22493 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}],
22494                     "href": "/myZone3ResURI", "rt": ["oic.r.heatingzone"], "if":
22495 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}],
22496                     "href": "/myZone4ResURI", "rt": ["oic.r.heatingzone"], "if":
22497 ["oic.if.s", "oic.if.baseline"], "eps": [{"ep": "coaps://[fe80::b1d6]:1122"}]
22498                   }
22499                 ],
22500                 "schema": { "$ref": "#/definitions/HeatingZone" }
22501               }
22502           }
22503         }
22504       }
22505     },

```

```

22506 "parameters": {
22507   "interface-ll" : {
22508     "in" : "query",
22509     "name" : "if",
22510     "type" : "string",
22511     "enum" : ["oic.if.ll"]
22512   },
22513   "interface-baseline" : {
22514     "in" : "query",
22515     "name" : "if",
22516     "type" : "string",
22517     "enum" : ["oic.if.baseline"]
22518   },
22519   "interface-all" : {
22520     "in" : "query",
22521     "name" : "if",
22522     "type" : "string",
22523     "enum" : ["oic.if.ll", "oic.if.baseline"]
22524   }
22525 },
22526 "definitions": {
22527   "HeatingZone-ll" :
22528   {
22529     "description": "All forms of links in a collection",
22530     "oneOf": [
22531       {
22532         "description": "A set (array) of simple or individual OIC Links. In addition to
22533 properties required for an OIC Link, the identifier for that link in this set is also required",
22534         "items": {
22535           "properties": {
22536             "anchor": {
22537               "description": "This is used to override the context URI e.g. override the URI of
22538 the containing collection",
22539               "format": "uri",
22540               "maxLength": 256,
22541               "type": "string"
22542             },
22543             "di": {
22544               "description": "Unique identifier for device (UUID)",
22545               "pattern": "[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-
22546 F0-9]{12}$",
22547               "type": "string"
22548             },
22549             "eps": {
22550               "description": "the Endpoint information of the target Resource",
22551               "items": {
22552                 "properties": {
22553                   "ep": {
22554                     "description": "URI with Transport Protocol Suites + Endpoint Locator as
22555 specified in 10.2.1",
22556                     "format": "uri",
22557                     "type": "string"
22558                   },
22559                   "pri": {
22560                     "description": "The priority among multiple Endpoints as specified in
22561 10.2.3",
22562                     "minimum": 1,
22563                     "type": "integer"
22564                   }
22565                 },
22566               "type": "object"
22567             },
22568             "type": "array"
22569           },
22570           "href": {
22571             "description": "This is the target URI, it can be specified as a Relative
22572 Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to
22573 make it unique.",
22574             "format": "uri",
22575             "maxLength": 256,
22576             "type": "string"

```

```

22577     },
22578     "if": {
22579         "description": "The interface set supported by this resource",
22580         "items": {
22581             "enum": [
22582                 "oic.if.baseline",
22583                 "oic.if.ll",
22584                 "oic.if.b",
22585                 "oic.if.rw",
22586                 "oic.if.r",
22587                 "oic.if.a",
22588                 "oic.if.s"
22589             ],
22590             "type": "string"
22591         },
22592         "minItems": 1,
22593         "type": "array"
22594     },
22595     "ins": {
22596         "description": "The instance identifier for this web link in an array of web
22597 links - used in collections",
22598         "oneOf": [
22599             {
22600                 "description": "An ordinal number that is not repeated - must be unique in
22601 the collection context",
22602                 "type": "integer"
22603             },
22604             {
22605                 "description": "Any unique string including a URI",
22606                 "format": "uri",
22607                 "maxLength": 256,
22608                 "type": "string"
22609             },
22610             {
22611                 "description": "Unique identifier (UUID)",
22612                 "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-
22613 fA-F0-9]{12}$",
22614                 "type": "string"
22615             }
22616         ]
22617     },
22618     "p": {
22619         "description": "Specifies the framework policies on the Resource referenced by
22620 the target URI",
22621         "properties": {
22622             "bm": {
22623                 "description": "Specifies the framework policies on the Resource referenced
22624 by the target URI for e.g. observable and discoverable",
22625                 "type": "integer"
22626             }
22627         },
22628         "required": [
22629             "bm"
22630         ],
22631         "type": "object"
22632     },
22633     "rel": {
22634         "description": "The relation of the target URI referenced by the link to the
22635 context URI",
22636         "oneOf": [
22637             {
22638                 "default": [
22639                     "hosts"
22640                 ],
22641                 "items": {
22642                     "maxLength": 64,
22643                     "type": "string"
22644                 },
22645                 "minItems": 1,
22646                 "type": "array"
22647             }

```



```

22648         {
22649             "default": "hosts",
22650             "maxLength": 64,
22651             "type": "string"
22652         }
22653     ]
22654 },
22655 "rt": {
22656     "description": "Resource Type",
22657     "items": {
22658         "maxLength": 64,
22659         "type": "string"
22660     },
22661     "minItems": 1,
22662     "type": "array"
22663 },
22664 "title": {
22665     "description": "A title for the link relation. Can be used by the UI to provide a
context",
22666     "maxLength": 64,
22667     "type": "string"
22668 },
22669 "type": {
22670     "default": "application/cbor",
22671     "description": "A hint at the representation of the resource referenced by the
target URI. This represents the media types that are used for both accepting and emitting",
22672     "items": {
22673         "maxLength": 64,
22674         "type": "string"
22675     },
22676     "minItems": 1,
22677     "type": "array"
22678 },
22679     }
22680 },
22681 "required": [
22682     "href",
22683     "rt",
22684     "if"
22685 ],
22686 "type": "object"
22687 },
22688 "type": "array"
22689 }
22690 ]
22691 }
22692 }
22693
22694 ,
22695 "HeatingZone" :
22696 {
22697     "description": "A collection is a set (array) of tagged-link or set (array) of simple links
along with additional properties to describe the collection itself",
22698     "properties": {
22699         "di": {
22700             "description": "The device ID which is an UUIDv4 string; used for backward
compatibility with Spec A definition of /oic/res",
22701             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
9]{12}$",
22702             "type": "string"
22703         },
22704         "drel": {
22705             "description": "When specified this is the default relationship to use when an OIC Link
does not specify an explicit relationship with *rel* parameter",
22706             "type": "string"
22707         },
22708         "id": {
22709             "anyOf": [
22710                 {
22711                     "description": "A number that is unique to that collection; like an ordinal number
that is not repeated",
22712                     "type": "integer"
22713                 }

```

```

22719         {
22720             "description": "A unique string that could be a hash or similarly unique",
22721             "type": "string"
22722         },
22723         {
22724             "description": "A unique string that could be a UUIDv4",
22725             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-
22726 9]{12}$",
22727             "type": "string"
22728         }
22729     ],
22730     "description": "ID for the collection. Can be an value that is unique to the use
22731 context or a UUIDv4"
22732 },
22733     "links": {
22734         "description": "All forms of links in a collection",
22735         "oneOf": [
22736             {
22737                 "description": "A set (array) of simple or individual OIC Links. In addition to
22738 properties required for an OIC Link, the identifier for that link in this set is also required",
22739                 "items": {
22740                     "properties": {
22741                         "anchor": {
22742                             "description": "This is used to override the context URI e.g. override the
22743 URI of the containing collection",
22744                             "format": "uri",
22745                             "maxLength": 256,
22746                             "type": "string"
22747                         },
22748                         "di": {
22749                             "description": "Unique identifier for device (UUID)",
22750                             "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-
22751 fA-F0-9]{12}$",
22752                             "type": "string"
22753                         },
22754                         "eps": {
22755                             "description": "the Endpoint information of the target Resource",
22756                             "items": {
22757                                 "properties": {
22758                                     "ep": {
22759                                         "description": "URI with Transport Protocol Suites + Endpoint Locator
22760 as specified in 10.2.1",
22761                                         "format": "uri",
22762                                         "type": "string"
22763                                     },
22764                                     "pri": {
22765                                         "description": "The priority among multiple Endpoints as specified in
22766 10.2.3",
22767                                         "minimum": 1,
22768                                         "type": "integer"
22769                                     }
22770                                 },
22771                                 "type": "object"
22772                             },
22773                             "type": "array"
22774                         },
22775                         "href": {
22776                             "description": "This is the target URI, it can be specified as a Relative
22777 Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to
22778 make it unique.",
22779                             "format": "uri",
22780                             "maxLength": 256,
22781                             "type": "string"
22782                         },
22783                         "if": {
22784                             "description": "The interface set supported by this resource",
22785                             "items": {
22786                                 "enum": [
22787                                     "oic.if.baseline",
22788                                     "oic.if.ll",
22789                                     "oic.if.b",

```

```

22790         "oic.if.rw",
22791         "oic.if.r",
22792         "oic.if.a",
22793         "oic.if.s"
22794     ],
22795     "type": "string"
22796 },
22797     "minItems": 1,
22798     "type": "array"
22799 },
22800     "ins": {
22801         "description": "The instance identifier for this web link in an array of web
22802 links - used in collections",
22803         "oneOf": [
22804             {
22805                 "description": "An ordinal number that is not repeated - must be unique
22806 in the collection context",
22807                 "type": "integer"
22808             },
22809             {
22810                 "description": "Any unique string including a URI",
22811                 "format": "uri",
22812                 "maxLength": 256,
22813                 "type": "string"
22814             },
22815             {
22816                 "description": "Unique identifier (UUID)",
22817                 "pattern": "^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-
22818 [a-fA-F0-9]{12}$",
22819                 "type": "string"
22820             }
22821         ]
22822     },
22823     "p": {
22824         "description": "Specifies the framework policies on the Resource referenced
22825 by the target URI",
22826         "properties": {
22827             "bm": {
22828                 "description": "Specifies the framework policies on the Resource
22829 referenced by the target URI for e.g. observable and discoverable",
22830                 "type": "integer"
22831             }
22832         },
22833         "required": [
22834             "bm"
22835         ],
22836         "type": "object"
22837     },
22838     "rel": {
22839         "description": "The relation of the target URI referenced by the link to the
22840 context URI",
22841         "oneOf": [
22842             {
22843                 "default": [
22844                     "hosts"
22845                 ],
22846                 "items": {
22847                     "maxLength": 64,
22848                     "type": "string"
22849                 },
22850                 "minItems": 1,
22851                 "type": "array"
22852             },
22853             {
22854                 "default": "hosts",
22855                 "maxLength": 64,
22856                 "type": "string"
22857             }
22858         ]
22859     },
22860     "rt": {

```

```

22861         "description": "Resource Type",
22862         "items": {
22863             "maxLength": 64,
22864             "type": "string"
22865         },
22866         "minItems": 1,
22867         "type": "array"
22868     },
22869     "title": {
22870         "description": "A title for the link relation. Can be used by the UI to
provide a context",
22871         "maxLength": 64,
22872         "type": "string"
22873     },
22874     "type": {
22875         "default": "application/cbor",
22876         "description": "A hint at the representation of the resource referenced by
the target URI. This represents the media types that are used for both accepting and emitting",
22877         "items": {
22878             "maxLength": 64,
22879             "type": "string"
22880         },
22881         "minItems": 1,
22882         "type": "array"
22883     },
22884     "required": [
22885         "href",
22886         "rt",
22887         "if"
22888     ],
22889     "type": "object"
22890 },
22891 "type": "array"
22892 }
22893 ]
22894 },
22895 "rt": {
22896     "items": {
22897         "enum": [
22898             "oic.r.heatingzonecollection",
22899             "oic.wk.col"
22900         ]
22901     },
22902     "maxItems": 2,
22903     "minItems": 2,
22904     "type": "array",
22905     "uniqueItems": true
22906 },
22907 "rts": {
22908     "description": "Defines the list of allowable resource types (for Target and anchors)
in links included in the collection; new links being created can only be from this list",
22909     "items": {
22910         "anyOf": [
22911             {
22912                 "enum": [
22913                     "oic.r.heatingzone",
22914                     "oic.r.value.conditional"
22915                 ]
22916             },
22917             {
22918                 "enum": [
22919                     "oic.r.heatingzone"
22920                 ]
22921             }
22922         ]
22923     },
22924     "maxLength": 64,
22925     "type": "string"
22926 },
22927 "maxItems": 2,
22928 "minItems": 1,

```

```

22932         "readOnly": true,
22933         "type": "array",
22934         "uniqueItems": true
22935     }
22936 },
22937     "type": "object"
22938 }
22939 }
22940 }
22941 }
22942

```

#### B.40.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
drel	string			When specified this is the default relationship to use when an OIC Link does not specify an explicit relationship with *rel* parameter
id	multiple types: see schema			ID for the collection. Can be an value that is unique to the use context or a UUIDv4
rts	array: see schema		Read Only	Defines the list of allowable resource types (for Target and anchors) in links included in the collection; new links being created can only be from this list
di	string			The device ID which is an UUIDv4 string; used for backward compatibility with Spec A definition of /oic/res
links	multiple types: see schema			All forms of links in a collection
rt	array: see schema	yes		
ins	multiple types: see schema			The instance identifier for this web link in an array of web links - used in collections

title	string			A title for the link relation. Can be used by the UI to provide a context
di	string			Unique identifier for device (UUID)
eps	array: see schema			the Endpoint information of the target Resource
p	object: see schema			Specifies the framework policies on the Resource referenced by the target URI
rel	multiple types: see schema			The relation of the target URI referenced by the link to the context URI
anchor	string			This is used to override the context URI e.g. override the URI of the containing collection
type	array: see schema			A hint at the representation of the resource referenced by the target URI. This represents the media types that are used for both accepting and emitting
if	array: see schema	yes		The interface set supported by this resource
rt	array: see schema	yes		Resource Type
href	string	yes		This is the target URI, it can be specified as a Relative Reference or fully-qualified URI. Relative Reference should be used along with the di parameter to make it unique.

## 22944 B.40.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/HeatingZoneBaselineResURI		get			

## 22945 B.41 Height

### 22946 B.41.1 Introduction

22947 This resource describes the properties associated with height of an object's physical size.  
 22948 Height (height) is height of an object.  
 22949 Retrieves height of an object.  
 22950

### 22951 B.41.2 Example URI

22952 /HeightResURI

### 22953 B.41.3 Resource Type

22954 The resource type (rt) is defined as: ['oic.r.height'].

### 22955 B.41.4 Swagger2.0 Definition

```

22956 {
22957   "swagger": "2.0",
22958   "info": {
22959     "title": "Height",
22960     "version": "v1.1.0-20160519",
22961     "license": {
22962       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
22963       "x-description": "Redistribution and use in source and binary forms, with or without
22964 modification, are permitted provided that the following conditions are met:\n      1.
22965 Redistributions of source code must retain the above copyright notice, this list of conditions and
22966 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
22967 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
22968 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
22969 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
22970 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
22971 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
22972 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
22973 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
22974 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
22975 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
22976 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
22977 OF SUCH DAMAGE.\n"
22978     },
22979   },
22980   "schemes": ["http"],
22981   "consumes": ["application/json"],
22982   "produces": ["application/json"],
22983   "paths": {
22984     "/HeightResURI" : {
22985       "get": {
22986         "description": "This resource describes the properties associated with height of an
22987 object's physical size.\nHeight (height) is height of an object.\nRetrieves height of an
22988 object.\n",
22989         "parameters": [
22990           {"$ref": "#/parameters/interface"}
22991         ],
22992         "responses": {
22993           "200": {
22994             "description": "",
22995             "x-example":
22996               {
22997                 "rt": ["oic.r.height"],
22998                 "id": "unique_example_id",
22999                 "height": 100.0
23000               }
23001           },

```

```

23002         "schema": { "$ref": "#/definitions/Height" }
23003     }
23004 }
23005 },
23006 "post": {
23007     "description": "Sets the Height.\n",
23008     "parameters": [
23009         { "$ref": "#/parameters/interface" },
23010         {
23011             "name": "body",
23012             "in": "body",
23013             "required": true,
23014             "schema": { "$ref": "#/definitions/Height" },
23015             "x-example":
23016                 {
23017                     "id": "unique_example_id",
23018                     "height": 200.0
23019                 }
23020         }
23021     ],
23022     "responses": {
23023         "200": {
23024             "description": "Indicates that the height was successfully changed.\nThe new height
23025 is provided in the response.\n",
23026             "x-example":
23027                 {
23028                     "id": "unique_example_id",
23029                     "height": 200.0
23030                 }
23031             ,
23032             "schema": { "$ref": "#/definitions/Height" }
23033         },
23034         "403": {
23035             "description": "Indicates that OIC client sent an invalid property value to the
23036 server.\nThe server responds with the current resource representation.\n",
23037             "x-example":
23038                 {
23039                     "id": "unique_example_id",
23040                     "height": 200.0
23041                 }
23042             ,
23043             "schema": { "$ref": "#/definitions/Height" }
23044         }
23045     }
23046 }
23047 },
23048 },
23049 "parameters": {
23050     "interface" : {
23051         "in" : "query",
23052         "name" : "if",
23053         "type" : "string",
23054         "enum" : ["oic.if.a", "oic.if.baseline"]
23055     }
23056 },
23057 "definitions": {
23058     "Height" :
23059         {
23060             "properties": {
23061                 "height": {
23062                     "description": "Height of an object",
23063                     "minimum": 0,
23064                     "type": "number"
23065                 },
23066                 "id": {
23067                     "description": "Instance ID of this specific resource",
23068                     "maxLength": 64,
23069                     "readOnly": true,
23070                     "type": "string"
23071                 },
23072                 "if": {

```



```

23073     "description": "The interface set supported by this resource",
23074     "items": {
23075         "enum": [
23076             "oic.if.baseline",
23077             "oic.if.ll",
23078             "oic.if.b",
23079             "oic.if.lb",
23080             "oic.if.rw",
23081             "oic.if.r",
23082             "oic.if.a",
23083             "oic.if.s"
23084         ],
23085         "type": "string"
23086     },
23087     "minItems": 1,
23088     "readOnly": true,
23089     "type": "array"
23090 },
23091 "n": {
23092     "description": "Friendly name of the resource",
23093     "maxLength": 64,
23094     "readOnly": true,
23095     "type": "string"
23096 },
23097 "precision": {
23098     "description": "Accuracy granularity of the exposed value",
23099     "readOnly": true,
23100     "type": "number"
23101 },
23102 "range": {
23103     "description": "The valid range for the value Property",
23104     "items": {
23105         "anyOf": [
23106             {
23107                 "type": "number"
23108             },
23109             {
23110                 "type": "integer"
23111             }
23112         ]
23113     },
23114     "maxItems": 2,
23115     "minItems": 2,
23116     "readOnly": true,
23117     "type": "array"
23118 },
23119 "rt": {
23120     "description": "Resource Type",
23121     "items": {
23122         "maxLength": 64,
23123         "type": "string"
23124     },
23125     "minItems": 1,
23126     "readOnly": true,
23127     "type": "array"
23128 },
23129 "step": {
23130     "anyOf": [
23131         {
23132             "type": "integer"
23133         },
23134         {
23135             "type": "number"
23136         }
23137     ],
23138     "description": "Step value across the defined range",
23139     "readOnly": true
23140 },
23141 "value": {
23142     "anyOf": [
23143         {

```

```

23144         "type": "array"
23145     },
23146     {
23147         "type": "string"
23148     },
23149     {
23150         "type": "boolean"
23151     },
23152     {
23153         "type": "integer"
23154     },
23155     {
23156         "type": "number"
23157     },
23158     {
23159         "type": "object"
23160     }
23161 ],
23162 "description": "The value sensed or actuated by this Resource"
23163 },
23164 },
23165 "required": [
23166     "height"
23167 ],
23168 "type": "object"
23169 }
23170 }
23171 }
23172 }
23173

```

#### B.41.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
id	string		Read Only	Instance ID of this specific resource
rt	array: see schema		Read Only	Resource Type
height	number	yes		Height of an object
n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource

#### B.41.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/HeightResURI		get	post		

## 23176 B.42 Humidity

### 23177 B.42.1 Introduction

23178 This resource describes a sensed or desired humidity.  
23179 The value humidity is an integer describing the percentage measured relative humidity.  
23180 The value desiredHumidity is an integer showing the desired target relative humidity.  
23181 Retrieves the current (relative) humidity level.  
23182

### 23183 B.42.2 Example URI

23184 /HumidityResURI

### 23185 B.42.3 Resource Type

23186 The resource type (rt) is defined as: ['oic.r.humidity'].

### 23187 B.42.4 Swagger2.0 Definition

```
23188 {  
23189   "swagger": "2.0",  
23190   "info": {  
23191     "title": "Humidity",  
23192     "version": "v1.1.0-20160519",  
23193     "license": {  
23194       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
23195       "x-description": "Redistribution and use in source and binary forms, with or without  
23196 modification, are permitted provided that the following conditions are met:\n      1.  
23197 Redistributions of source code must retain the above copyright notice, this list of conditions and  
23198 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
23199 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
23200 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open  
23201 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
23202 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
23203 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity  
23204 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
23205 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
23206 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND  
23207 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
23208 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
23209 OF SUCH DAMAGE.\n"    }  
23210   },  
23211   "schemes": ["http"],  
23212   "consumes": ["application/json"],  
23213   "produces": ["application/json"],  
23214   "paths": {  
23215     "/HumidityResURI" : {  
23216       "get": {  
23217         "description": "This resource describes a sensed or desired humidity.\nThe value humidity  
23218 is an integer describing the percentage measured relative humidity.\nThe value desiredHumidity is  
23219 an integer showing the desired target relative humidity.\nRetrieves the current (relative) humidity  
23220 level.\n",  
23221         "parameters": [  
23222           { "$ref": "#/parameters/interface" }  
23223         ],  
23224         "responses": {  
23225           "200": {  
23226             "description": "",  
23227             "x-example":  
23228               {  
23229                 "rt": ["oic.r.humidity"],  
23230                 "id": "unique_example_id",  
23231                 "humidity": 40,  
23232                 "desiredHumidity": 40  
23233               }  
23234             },  
23235             "schema": { "$ref": "#/definitions/Humidity" }  
23236           }  
23237         }  
23238       }
```

```

23239 },
23240 "post": {
23241   "description": "Sets the desired relative humidity level.\n",
23242   "parameters": [
23243     { "$ref": "#/parameters/interface" },
23244     {
23245       "name": "body",
23246       "in": "body",
23247       "required": true,
23248       "schema": { "$ref": "#/definitions/HumidityUpdate" },
23249       "x-example":
23250         {
23251           "id": "unique_example_id",
23252           "desiredHumidity": 45
23253         }
23254     ],
23255   "responses": {
23256     "200": {
23257       "description": "Indicates that the relative humidity level was changed.\nThe new
23258 relative humidity level is provided in the response.\n",
23259       "x-example":
23260         {
23261           "id": "unique_example_id",
23262           "desiredHumidity": 45
23263         },
23264       "schema": { "$ref": "#/definitions/HumidityUpdate" }
23265     }
23266   }
23267 },
23268 },
23269 },
23270 },
23271 },
23272 "parameters": {
23273   "interface": {
23274     "in": "query",
23275     "name": "if",
23276     "type": "string",
23277     "enum": ["oic.if.a", "oic.if.s", "oic.if.baseline"]
23278   }
23279 },
23280 "definitions": {
23281   "Humidity": {
23282     {
23283       "properties": {
23284         "desiredHumidity": {
23285           "description": "Desired value for Humidity",
23286           "maximum": 100,
23287           "minimum": 0,
23288           "type": "integer"
23289         },
23290         "humidity": {
23291           "description": "Current sensed value for Humidity",
23292           "maximum": 100,
23293           "minimum": 0,
23294           "readOnly": true,
23295           "type": "integer"
23296         },
23297         "id": {
23298           "description": "Instance ID of this specific resource",
23299           "maxLength": 64,
23300           "readOnly": true,
23301           "type": "string"
23302         },
23303         "if": {
23304           "description": "The interface set supported by this resource",
23305           "items": {
23306             "enum": [
23307               "oic.if.baseline",
23308               "oic.if.ll",
23309               "oic.if.b",

```

```

23310         "oic.if.lb",
23311         "oic.if.rw",
23312         "oic.if.r",
23313         "oic.if.a",
23314         "oic.if.s"
23315     ],
23316     "type": "string"
23317 },
23318 "minItems": 1,
23319 "readOnly": true,
23320 "type": "array"
23321 },
23322 "n": {
23323     "description": "Friendly name of the resource",
23324     "maxLength": 64,
23325     "readOnly": true,
23326     "type": "string"
23327 },
23328 "precision": {
23329     "description": "Accuracy granularity of the exposed value",
23330     "readOnly": true,
23331     "type": "number"
23332 },
23333 "range": {
23334     "description": "The valid range for the value Property",
23335     "items": {
23336         "anyOf": [
23337             {
23338                 "type": "number"
23339             },
23340             {
23341                 "type": "integer"
23342             }
23343         ]
23344     },
23345     "maxItems": 2,
23346     "minItems": 2,
23347     "readOnly": true,
23348     "type": "array"
23349 },
23350 "rt": {
23351     "description": "Resource Type",
23352     "items": {
23353         "maxLength": 64,
23354         "type": "string"
23355     },
23356     "minItems": 1,
23357     "readOnly": true,
23358     "type": "array"
23359 },
23360 "step": {
23361     "anyOf": [
23362         {
23363             "type": "integer"
23364         },
23365         {
23366             "type": "number"
23367         }
23368     ],
23369     "description": "Step value across the defined range",
23370     "readOnly": true
23371 },
23372 "value": {
23373     "anyOf": [
23374         {
23375             "type": "array"
23376         },
23377         {
23378             "type": "string"
23379         },
23380         {

```

```

23381         "type": "boolean"
23382     },
23383     {
23384         "type": "integer"
23385     },
23386     {
23387         "type": "number"
23388     },
23389     {
23390         "type": "object"
23391     }
23392 ],
23393 "description": "The value sensed or actuated by this Resource"
23394 }
23395 },
23396 "required": [
23397     "humidity"
23398 ],
23399 "type": "object"
23400 }
23401
23402 ,
23403 "HumidityUpdate" :
23404 {
23405     "properties": {
23406         "desiredHumidity": {
23407             "description": "Desired value for Humidity",
23408             "maximum": 100,
23409             "minimum": 0,
23410             "type": "integer"
23411         },
23412         "id": {
23413             "description": "Instance ID of this specific resource",
23414             "maxLength": 64,
23415             "readOnly": true,
23416             "type": "string"
23417         },
23418         "if": {
23419             "description": "The interface set supported by this resource",
23420             "items": {
23421                 "enum": [
23422                     "oic.if.baseline",
23423                     "oic.if.ll",
23424                     "oic.if.b",
23425                     "oic.if.lb",
23426                     "oic.if.rw",
23427                     "oic.if.r",
23428                     "oic.if.a",
23429                     "oic.if.s"
23430                 ],
23431                 "type": "string"
23432             },
23433             "minItems": 1,
23434             "readOnly": true,
23435             "type": "array"
23436         },
23437         "n": {
23438             "description": "Friendly name of the resource",
23439             "maxLength": 64,
23440             "readOnly": true,
23441             "type": "string"
23442         },
23443         "precision": {
23444             "description": "Accuracy granularity of the exposed value",
23445             "readOnly": true,
23446             "type": "number"
23447         },
23448         "range": {
23449             "description": "The valid range for the value Property",
23450             "items": {
23451                 "anyOf": [

```

```

23452         {
23453             "type": "number"
23454         },
23455         {
23456             "type": "integer"
23457         }
23458     ],
23459 },
23460 "maxItems": 2,
23461 "minItems": 2,
23462 "readOnly": true,
23463 "type": "array"
23464 },
23465 "rt": {
23466     "description": "Resource Type",
23467     "items": {
23468         "maxLength": 64,
23469         "type": "string"
23470     },
23471     "minItems": 1,
23472     "readOnly": true,
23473     "type": "array"
23474 },
23475 "step": {
23476     "anyOf": [
23477         {
23478             "type": "integer"
23479         },
23480         {
23481             "type": "number"
23482         }
23483     ],
23484     "description": "Step value across the defined range",
23485     "readOnly": true
23486 },
23487 "value": {
23488     "anyOf": [
23489         {
23490             "type": "array"
23491         },
23492         {
23493             "type": "string"
23494         },
23495         {
23496             "type": "boolean"
23497         },
23498         {
23499             "type": "integer"
23500         },
23501         {
23502             "type": "number"
23503         },
23504         {
23505             "type": "object"
23506         }
23507     ],
23508     "description": "The value sensed or actuated by this Resource"
23509 },
23510 },
23511 "type": "object"
23512 }
23513 }
23514 }
23515 }
23516

```

#### B.42.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or

				actuated by this Resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
desiredHumidity	integer			Desired value for Humidity
n	string		Read Only	Friendly name of the resource
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
humidity	integer	yes	Read Only	Current sensed value for Humidity
precision	number		Read Only	Accuracy granularity of the exposed value
desiredHumidity	integer			Desired value for Humidity
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource

23518

**B.42.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/HumidityResURI		get	post		



## 23519 **B.43 Ice Maker**

### 23520 **B.43.1 Introduction**

23521 This resource describes an the operational state of an Ice Maker.  
23522 The status is a string containing a value from the set of possible ice maker statuses.  
23523 The possible statuses are defined by the enumeration [on, off, full]  
23524 A status of 'on' means that the Ice Maker is operating.  
23525 A status of 'off' means that the Ice Maker is not operating.  
23526 A status of 'full' means that the ice collection bin is full (Ice Maker is operating).  
23527 Retrieves the current Ice Maker status.  
23528

### 23529 **B.43.2 Example URI**

23530 /IceMakerResURI

### 23531 **B.43.3 Resource Type**

23532 The resource type (rt) is defined as: ['oic.r.icemaker'].

### 23533 **B.43.4 Swagger2.0 Definition**

```
23534 {  
23535   "swagger": "2.0",  
23536   "info": {  
23537     "title": "Ice Maker",  
23538     "version": "v1.1.0-20160519",  
23539     "license": {  
23540       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
23541       "x-description": "Redistribution and use in source and binary forms, with or without  
23542 modification, are permitted provided that the following conditions are met:\n      1.  
23543 Redistributions of source code must retain the above copyright notice, this list of conditions and  
23544 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
23545 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
23546 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open  
23547 Connectivity Foundation, INC. \n      \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
23548 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
23549 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity  
23550 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
23551 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
23552 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND  
23553 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
23554 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
23555 OF SUCH DAMAGE.\n    }  
23556   },  
23557   "schemes": ["http"],  
23558   "consumes": ["application/json"],  
23559   "produces": ["application/json"],  
23560   "paths": {  
23561     "/IceMakerResURI" : {  
23562       "get": {  
23563         "description": "This resource describes an the operational state of an Ice Maker.\n      The  
23564 status is a string containing a value from the set of possible ice maker statuses.\n      The possible  
23565 statuses are defined by the enumeration [on, off, full]\n      A status of 'on' means that the Ice Maker  
23566 is operating.\n      A status of 'off' means that the Ice Maker is not operating.\n      A status of 'full'  
23567 means that the ice collection bin is full (Ice Maker is operating).\n      Retrieves the current Ice  
23568 Maker status.\n    },  
23569     "parameters": [  
23570       {  
23571         "$ref": "#/parameters/interface"  
23572       }  
23573     ],  
23574     "responses": {  
23575       "200": {  
23576         "description": "",  
23577         "x-example": {  
23578           "rt": ["oic.r.icemaker"],  
23579           "id": "unique_example_id",  
23580           "status": "on"
```

```

23581         }
23582     },
23583     "schema": { "$ref": "#/definitions/IceMaker" }
23584 }
23585 },
23586 },
23587 "post": {
23588     "description": "Sets the desired Ice Maker status.\nOnly valid settings for status in a
23589 Post shall be [on,off].\n",
23590     "parameters": [
23591         { "$ref": "#/parameters/interface" },
23592         {
23593             "name": "body",
23594             "in": "body",
23595             "required": true,
23596             "schema": { "$ref": "#/definitions/IceMakerUpdate" },
23597             "x-example":
23598             {
23599                 "id": "unique_example_id",
23600                 "status": "off"
23601             }
23602         }
23603     ],
23604     "responses": {
23605         "200": {
23606             "description": "Indicates that the Ice Maker status was changed.\nThe new status is
23607 provided in the response.\n",
23608             "x-example":
23609             {
23610                 "id": "unique_example_id",
23611                 "status": "off"
23612             }
23613         },
23614         "schema": { "$ref": "#/definitions/IceMakerUpdate" }
23615     },
23616     "403": {
23617         "description": "This response is generated by the OIC Server when the client
23618 sends:\n An update with an invalid property value for status.\nThe server responds with the
23619 current resource representation.\n",
23620         "x-example":
23621         {
23622             "id": "unique_example_id",
23623             "status": "off"
23624         }
23625     },
23626     "schema": { "$ref": "#/definitions/IceMakerUpdate" }
23627 }
23628 }
23629 }
23630 },
23631 },
23632 "parameters": {
23633     "interface": {
23634         "in": "query",
23635         "name": "if",
23636         "type": "string",
23637         "enum": ["oic.if.a", "oic.if.baseline"]
23638     }
23639 },
23640 "definitions": {
23641     "IceMaker": {
23642         {
23643             "properties": {
23644                 "id": {
23645                     "description": "Instance ID of this specific resource",
23646                     "maxLength": 64,
23647                     "readOnly": true,
23648                     "type": "string"
23649                 },
23650                 "if": {
23651                     "description": "The interface set supported by this resource",

```

```

23652     "items": {
23653         "enum": [
23654             "oic.if.baseline",
23655             "oic.if.ll",
23656             "oic.if.b",
23657             "oic.if.lb",
23658             "oic.if.rw",
23659             "oic.if.r",
23660             "oic.if.a",
23661             "oic.if.s"
23662         ],
23663         "type": "string"
23664     },
23665     "minItems": 1,
23666     "readOnly": true,
23667     "type": "array"
23668 },
23669 "n": {
23670     "description": "Friendly name of the resource",
23671     "maxLength": 64,
23672     "readOnly": true,
23673     "type": "string"
23674 },
23675 "precision": {
23676     "description": "Accuracy granularity of the exposed value",
23677     "readOnly": true,
23678     "type": "number"
23679 },
23680 "range": {
23681     "description": "The valid range for the value Property",
23682     "items": {
23683         "anyOf": [
23684             {
23685                 "type": "number"
23686             },
23687             {
23688                 "type": "integer"
23689             }
23690         ]
23691     },
23692     "maxItems": 2,
23693     "minItems": 2,
23694     "readOnly": true,
23695     "type": "array"
23696 },
23697 "rt": {
23698     "description": "Resource Type",
23699     "items": {
23700         "maxLength": 64,
23701         "type": "string"
23702     },
23703     "minItems": 1,
23704     "readOnly": true,
23705     "type": "array"
23706 },
23707 "status": {
23708     "description": "Status of the Ice Maker",
23709     "enum": [
23710         "on",
23711         "off",
23712         "full"
23713     ]
23714 },
23715 "step": {
23716     "anyOf": [
23717         {
23718             "type": "integer"
23719         },
23720         {
23721             "type": "number"
23722         }

```

```

23723     ],
23724     "description": "Step value across the defined range",
23725     "readOnly": true
23726   },
23727   "value": {
23728     "anyOf": [
23729       {
23730         "type": "array"
23731       },
23732       {
23733         "type": "string"
23734       },
23735       {
23736         "type": "boolean"
23737       },
23738       {
23739         "type": "integer"
23740       },
23741       {
23742         "type": "number"
23743       },
23744       {
23745         "type": "object"
23746       }
23747     ],
23748     "description": "The value sensed or actuated by this Resource"
23749   }
23750 },
23751 "required": [
23752   "status"
23753 ],
23754 "type": "object"
23755 }
23756
23757 ,
23758 "IceMakerUpdate" :
23759 {
23760   "properties": {
23761     "id": {
23762       "description": "Instance ID of this specific resource",
23763       "maxLength": 64,
23764       "readOnly": true,
23765       "type": "string"
23766     },
23767     "if": {
23768       "description": "The interface set supported by this resource",
23769       "items": {
23770         "enum": [
23771           "oic.if.baseline",
23772           "oic.if.ll",
23773           "oic.if.b",
23774           "oic.if.lb",
23775           "oic.if.rw",
23776           "oic.if.r",
23777           "oic.if.a",
23778           "oic.if.s"
23779         ],
23780         "type": "string"
23781       },
23782       "minItems": 1,
23783       "readOnly": true,
23784       "type": "array"
23785     },
23786     "n": {
23787       "description": "Friendly name of the resource",
23788       "maxLength": 64,
23789       "readOnly": true,
23790       "type": "string"
23791     },
23792     "precision": {
23793       "description": "Accuracy granularity of the exposed value",

```

```

23794         "readOnly": true,
23795         "type": "number"
23796     },
23797     "range": {
23798         "description": "The valid range for the value Property",
23799         "items": {
23800             "anyOf": [
23801                 {
23802                     "type": "number"
23803                 },
23804                 {
23805                     "type": "integer"
23806                 }
23807             ]
23808         },
23809         "maxItems": 2,
23810         "minItems": 2,
23811         "readOnly": true,
23812         "type": "array"
23813     },
23814     "rt": {
23815         "description": "Resource Type",
23816         "items": {
23817             "maxLength": 64,
23818             "type": "string"
23819         },
23820         "minItems": 1,
23821         "readOnly": true,
23822         "type": "array"
23823     },
23824     "status": {
23825         "description": "Set the status of the Ice Maker",
23826         "enum": [
23827             "on",
23828             "off"
23829         ]
23830     },
23831     "step": {
23832         "anyOf": [
23833             {
23834                 "type": "integer"
23835             },
23836             {
23837                 "type": "number"
23838             }
23839         ],
23840         "description": "Step value across the defined range",
23841         "readOnly": true
23842     },
23843     "value": {
23844         "anyOf": [
23845             {
23846                 "type": "array"
23847             },
23848             {
23849                 "type": "string"
23850             },
23851             {
23852                 "type": "boolean"
23853             },
23854             {
23855                 "type": "integer"
23856             },
23857             {
23858                 "type": "number"
23859             },
23860             {
23861                 "type": "object"
23862             }
23863         ],
23864         "description": "The value sensed or actuated by this Resource"

```

```

23865     },
23866     },
23867     "required": [
23868         "status"
23869     ],
23870     "type": "object"
23871 }
23872 }
23873 }
23874 }
23875

```

#### B.43.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
status	multiple types: see schema	yes		Set the status of the Ice Maker
value	multiple types: see schema			The value sensed or actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource

status	multiple types: see schema	yes		Status of the Ice Maker
value	multiple types: see schema			The value sensed or actuated by this Resource

#### 23877 B.43.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/IceMakerResURI		get	post		

### 23878 B.44 Illuminance Sensor

#### 23879 B.44.1 Introduction

23880 This resource describes an illuminance sensor.  
 23881 Illuminance is a float and represents the sensed luminous flux per unit area in lux.  
 23882

#### 23883 B.44.2 Example URI

23884 /IlluminanceSensorResURI

#### 23885 B.44.3 Resource Type

23886 The resource type (rt) is defined as: ['oic.r.sensor.illuminance'].

#### 23887 B.44.4 Swagger2.0 Definition

```

23888 {
23889   "swagger": "2.0",
23890   "info": {
23891     "title": "Illuminance Sensor",
23892     "version": "v1.1.0-20160519",
23893     "license": {
23894       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
23895       "x-description": "Redistribution and use in source and binary forms, with or without
23896 modification, are permitted provided that the following conditions are met:\n      1.
23897 Redistributions of source code must retain the above copyright notice, this list of conditions and
23898 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
23899 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
23900 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
23901 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
23902 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
23903 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
23904 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
23905 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
23906 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
23907 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
23908 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
23909 OF SUCH DAMAGE.\n"
23910     }
23911   },
23912   "schemes": ["http"],
23913   "consumes": ["application/json"],
23914   "produces": ["application/json"],
23915   "paths": {
23916     "/IlluminanceSensorResURI" : {
23917       "get": {
23918         "description": "This resource describes an illuminance sensor.\nIlluminance is a float and
23919 represents the sensed luminous flux per unit area in lux.\n",
23920         "parameters": [
23921           {"$ref": "#/parameters/interface"}
23922         ],
23923         "responses": {
23924           "200": {
23925             "description": "",
23926             "x-example":

```

```

23927         {
23928             "rt":          ["oic.r.sensor.illuminance"],
23929             "id":          "unique_example_id",
23930             "illuminance": 450.0
23931         }
23932     },
23933     "schema": { "$ref": "#/definitions/Illuminance" }
23934 }
23935 }
23936 }
23937 },
23938 },
23939 "parameters": {
23940     "interface" : {
23941         "in" : "query",
23942         "name" : "if",
23943         "type" : "string",
23944         "enum" : ["oic.if.s", "oic.if.baseline"]
23945     }
23946 },
23947 "definitions": {
23948     "Illuminance" :
23949     {
23950         "properties": {
23951             "id": {
23952                 "description": "Instance ID of this specific resource",
23953                 "maxLength": 64,
23954                 "readOnly": true,
23955                 "type": "string"
23956             },
23957             "if": {
23958                 "description": "The interface set supported by this resource",
23959                 "items": {
23960                     "enum": [
23961                         "oic.if.baseline",
23962                         "oic.if.ll",
23963                         "oic.if.b",
23964                         "oic.if.lb",
23965                         "oic.if.rw",
23966                         "oic.if.r",
23967                         "oic.if.a",
23968                         "oic.if.s"
23969                     ],
23970                     "type": "string"
23971                 },
23972                 "minItems": 1,
23973                 "readOnly": true,
23974                 "type": "array"
23975             },
23976             "illuminance": {
23977                 "description": "Sensed luminous flux per unit area in lux.",
23978                 "readOnly": true,
23979                 "type": "number"
23980             },
23981             "n": {
23982                 "description": "Friendly name of the resource",
23983                 "maxLength": 64,
23984                 "readOnly": true,
23985                 "type": "string"
23986             },
23987             "precision": {
23988                 "description": "Accuracy granularity of the exposed value",
23989                 "readOnly": true,
23990                 "type": "number"
23991             },
23992             "range": {
23993                 "description": "The valid range for the value Property",
23994                 "items": {
23995                     "anyOf": [
23996                         {
23997                             "type": "number"

```



```

23998         },
23999         {
24000             "type": "integer"
24001         }
24002     ]
24003 },
24004 "maxItems": 2,
24005 "minItems": 2,
24006 "readOnly": true,
24007 "type": "array"
24008 },
24009 "rt": {
24010     "description": "Resource Type",
24011     "items": {
24012         "maxLength": 64,
24013         "type": "string"
24014     },
24015     "minItems": 1,
24016     "readOnly": true,
24017     "type": "array"
24018 },
24019 "step": {
24020     "anyOf": [
24021         {
24022             "type": "integer"
24023         },
24024         {
24025             "type": "number"
24026         }
24027     ],
24028     "description": "Step value across the defined range",
24029     "readOnly": true
24030 },
24031 "value": {
24032     "anyOf": [
24033         {
24034             "type": "array"
24035         },
24036         {
24037             "type": "string"
24038         },
24039         {
24040             "type": "boolean"
24041         },
24042         {
24043             "type": "integer"
24044         },
24045         {
24046             "type": "number"
24047         },
24048         {
24049             "type": "object"
24050         }
24051     ],
24052     "description": "The value sensed or actuated by this Resource"
24053 }
24054 },
24055 "required": [
24056     "illuminance"
24057 ]
24058 }
24059 }
24060 }
24061 }
24062

```

#### B.44.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
illuminance	number	yes	Read Only	Sensed luminous flux per unit area in lux.
n	string		Read Only	Friendly name of the resource

#### 24064 B.44.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/IlluminanceSensorResURI		get			

#### 24065 B.45 Lock Code

##### 24066 B.45.1 Introduction

24067 Resource describing a lock code.  
 24068 The lockCodeList is an array of possible codes that may be associated with a lock.  
 24069 These are all presented as strings.  
 24070 Retrieves the current lock code values.  
 24071

##### 24072 B.45.2 Example URI

24073 /LockCodeResURI

##### 24074 B.45.3 Resource Type

24075 The resource type (rt) is defined as: ['oic.r.lock.code'].

##### 24076 B.45.4 Swagger2.0 Definition

```

24077 {
24078   "swagger": "2.0",
24079   "info": {
24080     "title": "Lock Code",
24081     "version": "v1.1.0-20160519",
24082     "license": {
24083       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
24084       "x-description": "Redistribution and use in source and binary forms, with or without
24085 modification, are permitted provided that the following conditions are met:\n      1.
24086 Redistributions of source code must retain the above copyright notice, this list of conditions and
24087 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above

```

```

24088 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
24089 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
24090 Connectivity Foundation, INC. \ "AS IS\ " AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
24091 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
24092 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
24093 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
24094 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
24095 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
24096 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
24097 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
24098 OF SUCH DAMAGE.\n"
24099 }
24100 },
24101 "schemes": ["http"],
24102 "consumes": ["application/json"],
24103 "produces": ["application/json"],
24104 "paths": {
24105   "/LockCodeResURI" : {
24106     "get": {
24107       "description": "Resource describing a lock code.\nThe lockCodeList is an array of possible
24108 codes that may be associated with a lock.\nThese are all presented as strings.\nRetrieves the
24109 current lock code values.\n",
24110       "parameters": [
24111         { "$ref": "#/parameters/interface" }
24112       ],
24113       "responses": {
24114         "200": {
24115           "description": "",
24116           "x-example":
24117             {
24118               "rt": ["oic.r.lock.code"],
24119               "id": "unique_example_id",
24120               "lockCodeList": ["012345", "112233"]
24121             },
24122           "schema": { "$ref": "#/definitions/LockCode" }
24123         }
24124       }
24125     },
24126     "post": {
24127       "description": "Updates the current lock code values.\n",
24128       "parameters": [
24129         { "$ref": "#/parameters/interface" },
24130         {
24131           "name": "body",
24132           "in": "body",
24133           "required": true,
24134           "schema": { "$ref": "#/definitions/LockCode" },
24135           "x-example":
24136             {
24137               "id": "unique_example_id",
24138               "lockCodeList": ["543210", "332211"]
24139             }
24140         }
24141       ],
24142       "responses": {
24143         "200": {
24144           "description": "",
24145           "x-example":
24146             {
24147               "id": "unique_example_id",
24148               "lockCodeList": ["543210", "332211"]
24149             },
24150           "schema": { "$ref": "#/definitions/LockCode" }
24151         }
24152       }
24153     }
24154   }
24155 }
24156 },
24157 },
24158 "parameters": {

```

```

24159     "interface" : {
24160         "in" : "query",
24161         "name" : "if",
24162         "type" : "string",
24163         "enum" : ["oic.if.a", "oic.if.baseline"]
24164     }
24165 },
24166 "definitions": {
24167     "LockCode" :
24168     {
24169         "properties": {
24170             "id": {
24171                 "description": "Instance ID of this specific resource",
24172                 "maxLength": 64,
24173                 "readOnly": true,
24174                 "type": "string"
24175             },
24176             "if": {
24177                 "description": "The interface set supported by this resource",
24178                 "items": {
24179                     "enum": [
24180                         "oic.if.baseline",
24181                         "oic.if.ll",
24182                         "oic.if.b",
24183                         "oic.if.lb",
24184                         "oic.if.rw",
24185                         "oic.if.r",
24186                         "oic.if.a",
24187                         "oic.if.s"
24188                     ],
24189                     "type": "string"
24190                 },
24191                 "minItems": 1,
24192                 "readOnly": true,
24193                 "type": "array"
24194             },
24195             "lockCodeList": {
24196                 "items": {
24197                     "description": "Value for the lock code",
24198                     "type": "string"
24199                 },
24200                 "type": "array"
24201             },
24202             "n": {
24203                 "description": "Friendly name of the resource",
24204                 "maxLength": 64,
24205                 "readOnly": true,
24206                 "type": "string"
24207             },
24208             "precision": {
24209                 "description": "Accuracy granularity of the exposed value",
24210                 "readOnly": true,
24211                 "type": "number"
24212             },
24213             "range": {
24214                 "description": "The valid range for the value Property",
24215                 "items": {
24216                     "anyOf": [
24217                         {
24218                             "type": "number"
24219                         },
24220                         {
24221                             "type": "integer"
24222                         }
24223                     ]
24224                 },
24225                 "maxItems": 2,
24226                 "minItems": 2,
24227                 "readOnly": true,
24228                 "type": "array"
24229             },

```

```

24230     "rt": {
24231         "description": "Resource Type",
24232         "items": {
24233             "maxLength": 64,
24234             "type": "string"
24235         },
24236         "minItems": 1,
24237         "readOnly": true,
24238         "type": "array"
24239     },
24240     "step": {
24241         "anyOf": [
24242             {
24243                 "type": "integer"
24244             },
24245             {
24246                 "type": "number"
24247             }
24248         ],
24249         "description": "Step value across the defined range",
24250         "readOnly": true
24251     },
24252     "value": {
24253         "anyOf": [
24254             {
24255                 "type": "array"
24256             },
24257             {
24258                 "type": "string"
24259             },
24260             {
24261                 "type": "boolean"
24262             },
24263             {
24264                 "type": "integer"
24265             },
24266             {
24267                 "type": "number"
24268             },
24269             {
24270                 "type": "object"
24271             }
24272         ],
24273         "description": "The value sensed or actuated by this Resource"
24274     }
24275 },
24276 "required": [
24277     "lockCodeList"
24278 ],
24279 "type": "object"
24280 }
24281 }
24282 }
24283 }
24284

```

#### B.45.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
lockCodeList	array: see schema	yes		
value	multiple types: see schema			The value sensed or actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range

range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource

## 24286 B.45.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/LockCodeResURI		get	post		

## 24287 B.46 Lock

### 24288 B.46.1 Introduction

24289 Resource describing a lock.  
 24290 For the type of lockState, the value 'Locked' indicates that the door is Locked.  
 24291 The value 'Unlocked' indicates that the door is Unlocked.  
 24292 Retrieves the state of the lock.  
 24293

### 24294 B.46.2 Example URI

24295 /LockStatusResURI

### 24296 B.46.3 Resource Type

24297 The resource type (rt) is defined as: ['oic.r.lock.status'].

### 24298 B.46.4 Swagger2.0 Definition

```

24299 {
24300   "swagger": "2.0",
24301   "info": {
24302     "title": "Lock",
24303     "version": "v1.1.0-20160519",
24304     "license": {
24305       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
24306       "x-description": "Redistribution and use in source and binary forms, with or without
24307 modification, are permitted provided that the following conditions are met:\n      1.
24308 Redistributions of source code must retain the above copyright notice, this list of conditions and
24309 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
24310 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
24311 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
24312 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
24313 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
24314 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
24315 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
24316 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
24317 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
24318 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
24319 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
24320 OF SUCH DAMAGE.\n"
24321   }
24322 },

```

```

24323 "schemes": ["http"],
24324 "consumes": ["application/json"],
24325 "produces": ["application/json"],
24326 "paths": {
24327     "/LockStatusResURI" : {
24328         "get": {
24329             "description": "Resource describing a lock.\nFor the type of lockState, the value 'Locked'
24330 indicates that the door is Locked.\nThe value 'Unlocked' indicates that the door is
24331 Unlocked.\nRetrieves the state of the lock.\n",
24332             "parameters": [
24333                 {"$ref": "#/parameters/interface"}
24334             ],
24335             "responses": {
24336                 "200": {
24337                     "description": "",
24338                     "x-example":
24339                     {
24340                         "rt": ["oic.r.lock.status"],
24341                         "id": "unique_example_id",
24342                         "lockState": "Locked"
24343                     },
24344                     "schema": { "$ref": "#/definitions/Lock" }
24345                 }
24346             },
24347         },
24348     },
24349     "post": {
24350         "description": "Sets the current lock state.\n",
24351         "parameters": [
24352             {"$ref": "#/parameters/interface"},
24353             {
24354                 "name": "body",
24355                 "in": "body",
24356                 "required": true,
24357                 "schema": { "$ref": "#/definitions/Lock" },
24358                 "x-example":
24359                 {
24360                     "id": "unique_example_id",
24361                     "lockState": "Unlocked"
24362                 }
24363             }
24364         ],
24365         "responses": {
24366             "200": {
24367                 "description": "",
24368                 "x-example":
24369                 {
24370                     "id": "unique_example_id",
24371                     "lockState": "Unlocked"
24372                 },
24373                 "schema": { "$ref": "#/definitions/Lock" }
24374             },
24375             "403": {
24376                 "description": "This response is generated by the OIC Server when the client
24377 sends:\n An update with an invalid property value for lockState.\nThe server responds with the
24378 current resource representation.\n",
24379                 "x-example":
24380                 {
24381                     "lockState": "Unlocked"
24382                 },
24383                 "schema": { "$ref": "#/definitions/Lock" }
24384             }
24385         },
24386     },
24387 },
24388 },
24389 },
24390 },
24391 "parameters": {
24392     "interface" : {
24393         "in" : "query",

```

```

24394     "name" : "if",
24395     "type" : "string",
24396     "enum" : ["oic.if.a", "oic.if.baseline"]
24397 }
24398 },
24399 "definitions": {
24400     "Lock" :
24401     {
24402         "properties": {
24403             "id": {
24404                 "description": "Instance ID of this specific resource",
24405                 "maxLength": 64,
24406                 "readOnly": true,
24407                 "type": "string"
24408             },
24409             "if": {
24410                 "description": "The interface set supported by this resource",
24411                 "items": {
24412                     "enum": [
24413                         "oic.if.baseline",
24414                         "oic.if.ll",
24415                         "oic.if.b",
24416                         "oic.if.lb",
24417                         "oic.if.rw",
24418                         "oic.if.r",
24419                         "oic.if.a",
24420                         "oic.if.s"
24421                     ],
24422                     "type": "string"
24423                 },
24424                 "minItems": 1,
24425                 "readOnly": true,
24426                 "type": "array"
24427             },
24428             "lockState": {
24429                 "description": "State of the lock.",
24430                 "enum": [
24431                     "Locked",
24432                     "Unlocked"
24433                 ],
24434                 "type": "string"
24435             },
24436             "n": {
24437                 "description": "Friendly name of the resource",
24438                 "maxLength": 64,
24439                 "readOnly": true,
24440                 "type": "string"
24441             },
24442             "precision": {
24443                 "description": "Accuracy granularity of the exposed value",
24444                 "readOnly": true,
24445                 "type": "number"
24446             },
24447             "range": {
24448                 "description": "The valid range for the value Property",
24449                 "items": {
24450                     "anyOf": [
24451                         {
24452                             "type": "number"
24453                         },
24454                         {
24455                             "type": "integer"
24456                         }
24457                     ]
24458                 },
24459                 "maxItems": 2,
24460                 "minItems": 2,
24461                 "readOnly": true,
24462                 "type": "array"
24463             },
24464             "rt": {

```



```

24465         "description": "Resource Type",
24466         "items": {
24467             "maxLength": 64,
24468             "type": "string"
24469         },
24470         "minItems": 1,
24471         "readOnly": true,
24472         "type": "array"
24473     },
24474     "step": {
24475         "anyOf": [
24476             {
24477                 "type": "integer"
24478             },
24479             {
24480                 "type": "number"
24481             }
24482         ],
24483         "description": "Step value across the defined range",
24484         "readOnly": true
24485     },
24486     "value": {
24487         "anyOf": [
24488             {
24489                 "type": "array"
24490             },
24491             {
24492                 "type": "string"
24493             },
24494             {
24495                 "type": "boolean"
24496             },
24497             {
24498                 "type": "integer"
24499             },
24500             {
24501                 "type": "number"
24502             },
24503             {
24504                 "type": "object"
24505             }
24506         ],
24507         "description": "The value sensed or actuated by this Resource"
24508     }
24509 },
24510 "required": [
24511     "lockState"
24512 ],
24513 "type": "object"
24514 }
24515 }
24516 }
24517 }
24518

```

#### B.46.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value

id	string		Read Only	Instance ID of this specific resource
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource
step	multiple types: see schema		Read Only	Step value across the defined range
lockState	string	yes		State of the lock.
if	array: see schema		Read Only	The interface set supported by this resource

## 24520 B.46.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/LockStatusResURI		get	post		

## 24521 B.47 Magnetic Field Direction Sensor

### 24522 B.47.1 Introduction

24523 This resource describes the direction of the Earth's magnetic field at the observer's current point  
 24524 in space.  
 24525 Typical use case includes measurement of compass readings on a personal device.  
 24526 The value is an array containing Hx, Hy, Hz (in that order) each of which are floats.  
 24527 Each of Hx, Hy and Hz are expressed in A/m (Amperes per metre)  
 24528

### 24529 B.47.2 Example URI

24530 /MagneticFieldDirectionResURI

### 24531 B.47.3 Resource Type

24532 The resource type (rt) is defined as: ['oic.r.sensor.magneticfielddirection'].

### 24533 B.47.4 Swagger2.0 Definition

```

24534 {
24535   "swagger": "2.0",
24536   "info": {
24537     "title": "Magnetic Field Direction Sensor",
24538     "version": "v1.1.0-20160519",
24539     "license": {
24540       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
24541       "x-description": "Redistribution and use in source and binary forms, with or without
24542 modification, are permitted provided that the following conditions are met:\n      1.
24543 Redistributions of source code must retain the above copyright notice, this list of conditions and
24544 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
24545 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
24546 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open
24547 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
24548 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
24549 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
24550 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
24551 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
24552 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
24553 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
24554 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
24555 OF SUCH DAMAGE.\n"
24556   }
  
```

```

24557     },
24558     "schemes": ["http"],
24559     "consumes": ["application/json"],
24560     "produces": ["application/json"],
24561     "paths": {
24562         "/MagneticFieldDirectionResURI" : {
24563             "get": {
24564                 "description": "This resource describes the direction of the Earth's magnetic field at the
24565 observer's current point in space.\nTypical use case includes measurement of compass readings on a
24566 personal device.\nThe value is an array containing Hx, Hy, Hz (in that order) each of which are
24567 floats.\nEach of Hx, Hy and Hz are expressed in A/m (Amperes per metre)\n",
24568                 "parameters": [
24569                     {"$ref": "#/parameters/interface"}
24570                 ],
24571                 "responses": {
24572                     "200": {
24573                         "description": "",
24574                         "x-example":
24575                             {
24576                                 "rt": ["oic.r.sensor.magneticfieldddirection"],
24577                                 "id": "unique_example_id",
24578                                 "value": [100.0,15.0,90.0]
24579                             },
24580                         "schema": { "$ref": "#/definitions/magneticFieldDirection" }
24581                     }
24582                 }
24583             }
24584         }
24585     },
24586 },
24587 "parameters": {
24588     "interface" : {
24589         "in" : "query",
24590         "name" : "if",
24591         "type" : "string",
24592         "enum" : ["oic.if.s", "oic.if.baseline"]
24593     }
24594 },
24595 "definitions": {
24596     "magneticFieldDirection" :
24597     {
24598         "properties": {
24599             "id": {
24600                 "description": "Instance ID of this specific resource",
24601                 "maxLength": 64,
24602                 "readOnly": true,
24603                 "type": "string"
24604             },
24605             "if": {
24606                 "description": "The interface set supported by this resource",
24607                 "items": {
24608                     "enum": [
24609                         "oic.if.baseline",
24610                         "oic.if.ll",
24611                         "oic.if.b",
24612                         "oic.if.lb",
24613                         "oic.if.rw",
24614                         "oic.if.r",
24615                         "oic.if.a",
24616                         "oic.if.s"
24617                     ],
24618                     "type": "string"
24619                 },
24620                 "minItems": 1,
24621                 "readOnly": true,
24622                 "type": "array"
24623             },
24624             "n": {
24625                 "description": "Friendly name of the resource",
24626                 "maxLength": 64,
24627                 "readOnly": true,

```

```

24628         "type": "string"
24629     },
24630     "precision": {
24631         "description": "Accuracy granularity of the exposed value",
24632         "readOnly": true,
24633         "type": "number"
24634     },
24635     "range": {
24636         "description": "The valid range for the value Property",
24637         "items": {
24638             "anyOf": [
24639                 {
24640                     "type": "number"
24641                 },
24642                 {
24643                     "type": "integer"
24644                 }
24645             ]
24646         },
24647         "maxItems": 2,
24648         "minItems": 2,
24649         "readOnly": true,
24650         "type": "array"
24651     },
24652     "rt": {
24653         "description": "Resource Type",
24654         "items": {
24655             "maxLength": 64,
24656             "type": "string"
24657         },
24658         "minItems": 1,
24659         "readOnly": true,
24660         "type": "array"
24661     },
24662     "step": {
24663         "anyOf": [
24664             {
24665                 "type": "integer"
24666             },
24667             {
24668                 "type": "number"
24669             }
24670         ],
24671         "description": "Step value across the defined range",
24672         "readOnly": true
24673     },
24674     "value": {
24675         "description": "Array containing Hx, Hy, Hz.",
24676         "items": {
24677             "type": "number"
24678         },
24679         "maxItems": 3,
24680         "minItems": 3,
24681         "readOnly": true,
24682         "type": "array"
24683     }
24684 },
24685 "required": [
24686     "value"
24687 ]
24688 }
24689 }
24690 }
24691 }
24692

```

#### B.47.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
rt	array: see schema		Read Only	Resource Type
value	array: see schema	yes	Read Only	Array containing Hx, Hy, Hz.
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range

## 24694 B.47.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/MagneticFieldDirectionResURI		get			

## 24695 B.48 Media

### 24696 B.48.1 Introduction

24697 This resource specifies the media types that an OCF Server supports.  
24698 The resource is an array of media elements. Each element contains:  
24699 A URL at which the specified media type can be accessed.  
24700 A string array containing the definition of the media using SDP.  
24701 Each entry in the sdp array is an SDP line.  
24702 Each line shall follow the SDP description syntax as defined in the SDP specification.  
24703 The SDP specification can be found at <http://tools.ietf.org/html/rfc4566>.  
24704 Retrieves the current media resource.  
24705

### 24706 B.48.2 Example URI

24707 /MediaResURI

### 24708 B.48.3 Resource Type

24709 The resource type (rt) is defined as: ['oic.r.media'].

### 24710 B.48.4 Swagger2.0 Definition

```

24711 {
24712   "swagger": "2.0",
24713   "info": {
24714     "title": "Media",
24715     "version": "v1.1.0-20160519",
24716     "license": {
24717       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
24718       "x-description": "Redistribution and use in source and binary forms, with or without
24719 modification, are permitted provided that the following conditions are met:\n      1.
24720 Redistributions of source code must retain the above copyright notice, this list of conditions and
24721 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
24722 copyright notice, this list of conditions and the following disclaimer in the documentation and/or

```

```

24723 other materials provided with the distribution.\n\n          THIS SOFTWARE IS PROVIDED BY THE Open
24724 Connectivity Foundation, INC. \n"AS IS\n" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
24725 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
24726 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n          IN NO EVENT SHALL THE Open Connectivity
24727 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
24728 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
24729 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
24730 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
24731 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
24732 OF SUCH DAMAGE.\n"
24733     }
24734 },
24735 "schemes": ["http"],
24736 "consumes": ["application/json"],
24737 "produces": ["application/json"],
24738 "paths": {
24739     "/MediaResURI" : {
24740         "get": {
24741             "description": "This resource specifies the media types that an OCF Server supports.\n\nThe
24742 resource is an array of media elements. Each element contains:\n    A URL at which the specified
24743 media type can be accessed.\n    A string array containing the definition of the media using SDP.\n\nEach entry in the sdp array is an SDP line.\n    Each line shall follow the SDP description syntax
24744 as defined in the SDP specification.\n\nThe SDP specification can be found at
24745 http://tools.ietf.org/html/rfc4566.\n\nRetrieves the current media resource.\n",
24746             "parameters": [
24747                 { "$ref": "#/parameters/interface" }
24748             ],
24749             "responses": {
24750                 "200": {
24751                     "description": "",
24752                     "x-example":
24753                     {
24754                         "rt": ["oic.r.media"],
24755                         "id": "unique_example_id",
24756                         "media": [
24757                             {
24758                                 "url": "some example url",
24759                                 "sdp": [
24760                                     "m=video 1 RTP/AVP 96",
24761                                     "a=rtpmap:96 H264/9000",
24762                                     "a=fmt:96 profile-level-id=42A028;packetization-mode=1"
24763                                 ]
24764                             },
24765                             {
24766                                 "url": "some other example1 url",
24767                                 "sdp": [
24768                                     "m=audio 2 RTP/AVP 97",
24769                                     "a=rtpmap:97 MP4A-LATM/90000"
24770                                 ]
24771                             },
24772                             {
24773                                 "url": "some other example2 url",
24774                                 "sdp": [
24775                                     "m=video 3 RTP/AVP 98",
24776                                     "a=rtpmap:98 jpeg/90000",
24777                                     "a=fmt:98 sampling=YCbCr-4:2:0;width=256;height=256"
24778                                 ]
24779                             }
24780                         ]
24781                     }
24782                 }
24783             },
24784             "schema": { "$ref": "#/definitions/Media" }
24785         }
24786     }
24787 },
24788 },
24789 },
24790 "parameters": {
24791     "interface" : {
24792         "in" : "query",
24793         "name" : "if",

```

```

24794         "type" : "string",
24795         "enum" : ["oic.if.s", "oic.if.baseline"]
24796     },
24797 },
24798 "definitions": {
24799     "Media" :
24800     {
24801         "properties": {
24802             "id": {
24803                 "description": "Instance ID of this specific resource",
24804                 "maxLength": 64,
24805                 "readOnly": true,
24806                 "type": "string"
24807             },
24808             "if": {
24809                 "description": "The interface set supported by this resource",
24810                 "items": {
24811                     "enum": [
24812                         "oic.if.baseline",
24813                         "oic.if.ll",
24814                         "oic.if.b",
24815                         "oic.if.lb",
24816                         "oic.if.rw",
24817                         "oic.if.x",
24818                         "oic.if.a",
24819                         "oic.if.s"
24820                     ],
24821                     "type": "string"
24822                 },
24823                 "minItems": 1,
24824                 "readOnly": true,
24825                 "type": "array"
24826             },
24827             "media": {
24828                 "items": {
24829                     "properties": {
24830                         "sdp": {
24831                             "description": "Array of strings, one per SDP line",
24832                             "items": {
24833                                 "description": "SDP media or attribute line",
24834                                 "type": "string"
24835                             },
24836                             "type": "array"
24837                         },
24838                         "url": {
24839                             "description": "url for the media instance",
24840                             "type": "string"
24841                         }
24842                     },
24843                     "type": "object"
24844                 },
24845                 "type": "array"
24846             },
24847             "n": {
24848                 "description": "Friendly name of the resource",
24849                 "maxLength": 64,
24850                 "readOnly": true,
24851                 "type": "string"
24852             },
24853             "precision": {
24854                 "description": "Accuracy granularity of the exposed value",
24855                 "readOnly": true,
24856                 "type": "number"
24857             },
24858             "range": {
24859                 "description": "The valid range for the value Property",
24860                 "items": {
24861                     "anyOf": [
24862                         {
24863                             "type": "number"
24864                         }

```

```

24865         {
24866             "type": "integer"
24867         }
24868     ],
24869 },
24870 "maxItems": 2,
24871 "minItems": 2,
24872 "readOnly": true,
24873 "type": "array"
24874 },
24875 "rt": {
24876     "description": "Resource Type",
24877     "items": {
24878         "maxLength": 64,
24879         "type": "string"
24880     },
24881     "minItems": 1,
24882     "readOnly": true,
24883     "type": "array"
24884 },
24885 "step": {
24886     "anyOf": [
24887         {
24888             "type": "integer"
24889         },
24890         {
24891             "type": "number"
24892         }
24893     ],
24894     "description": "Step value across the defined range",
24895     "readOnly": true
24896 },
24897 "value": {
24898     "anyOf": [
24899         {
24900             "type": "array"
24901         },
24902         {
24903             "type": "string"
24904         },
24905         {
24906             "type": "boolean"
24907         },
24908         {
24909             "type": "integer"
24910         },
24911         {
24912             "type": "number"
24913         },
24914         {
24915             "type": "object"
24916         }
24917     ],
24918     "description": "The value sensed or actuated by this Resource"
24919 },
24920 },
24921 "required": [
24922     "media"
24923 ]
24924 }
24925 }
24926 }
24927 }
24928

```

#### 24929 B.48.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------



precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property
media	array: see schema	yes		
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource

## 24930 B.48.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/MediaResURI		get			

## 24931 B.49 Media Source

### 24932 B.49.1 Introduction

24933 This resource defines a media source that exists on a device.  
24934 The source can be an input source or output source, this resource is agnostic of that.  
24935 The sourceName specifies a pre-defined media input or output (e.g."HDMI", "DVI")  
24936 The sourceNumber is a numeric identifier to specify the instance (e.g. "PC", 1)  
24937 The sourceType is an enumeration defining whether the source is audio, video or both.  
24938 The status is a boolean that determines if the specific source instance is selected or not.  
24939 A status of true means that the source instance is selected.  
24940 A status of false means that the source instance is not selected.

24941

### 24942 B.49.2 Example URI

24943 /mediaSourceResURI

### 24944 B.49.3 Resource Type

24945 The resource type (rt) is defined as: ['oic.r.mediasource'].

### 24946 B.49.4 Swagger2.0 Definition

```

24947 {
24948   "swagger": "2.0",
24949   "info": {
24950     "title": "Media Source",
24951     "version": "v1.1.0-20160519",
24952     "license": {
24953       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",

```

```

24954     "x-description": "Redistribution and use in source and binary forms, with or without
24955 modification, are permitted provided that the following conditions are met:\n        1.
24956 Redistributions of source code must retain the above copyright notice, this list of conditions and
24957 the following disclaimer.\n        2. Redistributions in binary form must reproduce the above
24958 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
24959 other materials provided with the distribution.\n\n        THIS SOFTWARE IS PROVIDED BY THE Open
24960 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
24961 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
24962 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n        IN NO EVENT SHALL THE Open Connectivity
24963 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
24964 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
24965 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n        HOWEVER CAUSED AND
24966 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
24967 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
24968 OF SUCH DAMAGE.\n"
24969     }
24970 },
24971 "schemes": ["http"],
24972 "consumes": ["application/json"],
24973 "produces": ["application/json"],
24974 "paths": {
24975     "/mediaSourceResURI" : {
24976         "get": {
24977             "description": "This resource defines a media source that exists on a device.\nThe source
24978 can be an input source or output source, this resource is agnostic of that.\nThe sourceName
24979 specifies a pre-defined media input or output (e.g.\\"HDMI\\", \\"DVI\\")\nThe sourceNumber is a
24980 numeric identifier to specify the instance (e.g. \\"PC\\", 1)\nThe sourceType is an enumeration
24981 defining whether the source is audio, video or both.\nThe status is a boolean that determines if
24982 the specific source instance is selected or not.\n        A status of true means that the source
24983 instance is selected.\n        A status of false means that the source instance is not selected.\n",
24984             "parameters": [
24985                 { "$ref": "#/parameters/interface" }
24986             ],
24987             "responses": {
24988                 "200": {
24989                     "description": "",
24990                     "x-example":
24991                     {
24992                         "rt": ["oic.r.mediasource"],
24993                         "id": "unique_example_id",
24994                         "sourceName": "HDMI-CEC",
24995                         "sourceNumber": "1",
24996                         "sourceType": "audioPlusVideo",
24997                         "status": true
24998                     }
24999                 },
25000                 "schema": { "$ref": "#/definitions/mediaSource" }
25001             }
25002         }
25003     },
25004     "post": {
25005         "description": "Changes the status of the source.\nAllows changes of the sourceName and the
25006 status.\n",
25007         "parameters": [
25008             { "$ref": "#/parameters/interface" },
25009             {
25010                 "name": "body",
25011                 "in": "body",
25012                 "required": true,
25013                 "schema": { "$ref": "#/definitions/mediaSource" },
25014                 "x-example":
25015                 {
25016                     "id": "unique_example_id",
25017                     "sourceName": "my new name",
25018                     "sourceNumber": "1",
25019                     "status": true
25020                 }
25021             }
25022         ],
25023         "responses": {
25024             "200": {

```

```

25025         "description" : "",
25026         "x-example":
25027             {
25028                 "id":          "unique_example_id",
25029                 "sourceName":  "my new name",
25030                 "sourceNumber": "1",
25031                 "status":      true
25032             }
25033         ,
25034         "schema": { "$ref": "#/definitions/mediaSource" }
25035     }
25036 }
25037 }
25038 }
25039 },
25040 "parameters": {
25041     "interface" : {
25042         "in" : "query",
25043         "name" : "if",
25044         "type" : "string",
25045         "enum" : ["oic.if.a", "oic.if.baseline"]
25046     }
25047 },
25048 "definitions": {
25049     "mediaSource" :
25050     {
25051         "properties": {
25052             "id": {
25053                 "description": "Instance ID of this specific resource",
25054                 "maxLength": 64,
25055                 "readOnly": true,
25056                 "type": "string"
25057             },
25058             "if": {
25059                 "description": "The interface set supported by this resource",
25060                 "items": {
25061                     "enum": [
25062                         "oic.if.baseline",
25063                         "oic.if.ll",
25064                         "oic.if.b",
25065                         "oic.if.lb",
25066                         "oic.if.rw",
25067                         "oic.if.r",
25068                         "oic.if.a",
25069                         "oic.if.s"
25070                     ],
25071                     "type": "string"
25072                 },
25073                 "minItems": 1,
25074                 "readOnly": true,
25075                 "type": "array"
25076             },
25077             "n": {
25078                 "description": "Friendly name of the resource",
25079                 "maxLength": 64,
25080                 "readOnly": true,
25081                 "type": "string"
25082             },
25083             "precision": {
25084                 "description": "Accuracy granularity of the exposed value",
25085                 "readOnly": true,
25086                 "type": "number"
25087             },
25088             "range": {
25089                 "description": "The valid range for the value Property",
25090                 "items": {
25091                     "anyOf": [
25092                         {
25093                             "type": "number"
25094                         },
25095                     ]

```

```

25096         "type": "integer"
25097     }
25098 ]
25099 },
25100 "maxItems": 2,
25101 "minItems": 2,
25102 "readOnly": true,
25103 "type": "array"
25104 },
25105 "rt": {
25106     "description": "Resource Type",
25107     "items": {
25108         "maxLength": 64,
25109         "type": "string"
25110     },
25111     "minItems": 1,
25112     "readOnly": true,
25113     "type": "array"
25114 },
25115 "sourceName": {
25116     "description": "Specifies a pre-defined media input or output",
25117     "type": "string"
25118 },
25119 "sourceNumber": {
25120     "description": "Numeric identifier to specify the instance",
25121     "readOnly": true,
25122     "type": [
25123         "integer",
25124         "string"
25125     ]
25126 },
25127 "sourceType": {
25128     "description": "Specifies the type of the source",
25129     "enum": [
25130         "audioOnly",
25131         "videoOnly",
25132         "audioPlusVideo"
25133     ],
25134     "readOnly": true
25135 },
25136 "status": {
25137     "description": "Specifies if the specific source instance is selected or not",
25138     "type": "boolean"
25139 },
25140 "step": {
25141     "anyOf": [
25142         {
25143             "type": "integer"
25144         },
25145         {
25146             "type": "number"
25147         }
25148     ],
25149     "description": "Step value across the defined range",
25150     "readOnly": true
25151 },
25152 "value": {
25153     "anyOf": [
25154         {
25155             "type": "array"
25156         },
25157         {
25158             "type": "string"
25159         },
25160         {
25161             "type": "boolean"
25162         },
25163         {
25164             "type": "integer"
25165         },
25166         {

```

```

25167         "type": "number"
25168     },
25169     {
25170         "type": "object"
25171     }
25172 ],
25173     "description": "The value sensed or actuated by this Resource"
25174 },
25175 },
25176     "required": [
25177         "sourceName",
25178         "status"
25179     ]
25180 }
25181 }
25182 }
25183 }
25184

```

#### B.49.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
status	boolean	yes		Specifies if the specific source instance is selected or not
sourceName	string	yes		Specifies a pre-defined media input or output
sourceNumber	['integer', 'string']		Read Only	Numeric identifier to specify the instance
sourceType	multiple types: see schema		Read Only	Specifies the type of the source
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property

## 25186 B.49.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/mediaSourceResURI		get	post		

## 25187 B.50 Media Source List

### 25188 B.50.1 Introduction

25189 This resource provides the list of media sources available on the device.  
 25190 The sources are an array of mediaSource(s) as separately defined.  
 25191 The basic resource type oic.r.mediaSourceList does not provide any indications whether the  
 25192 source is input or output.  
 25193 Hence, two specializations of this resource exist.  
 25194 When a device exposes input sources then an instance of this resource with a resource type of  
 25195 oic.r.media.input is exposed.  
 25196 When a device exposes output sources then an instance of this resource with a resource type of  
 25197 oic.r.media.output is exposed.  
 25198 A device that exposes both input and output media sources then exposes two instances of this  
 25199 resource,  
 25200 one with a resource type of oic.r.media.input and one with a resource type of oic.r.media.output  
 25201

### 25202 B.50.2 Example URI

25203 /mediaSourceListResURI

### 25204 B.50.3 Resource Type

25205 The resource type (rt) is defined as: ['oic.r.mediasourcelist'].

### 25206 B.50.4 Swagger2.0 Definition

```

25207 {
25208   "swagger": "2.0",
25209   "info": {
25210     "title": "Media Source List",
25211     "version": "v1.1.0-20160519",
25212     "license": {
25213       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
25214       "x-description": "Redistribution and use in source and binary forms, with or without
25215 modification, are permitted provided that the following conditions are met:\n      1.
25216 Redistributions of source code must retain the above copyright notice, this list of conditions and
25217 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
25218 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
25219 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
25220 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
25221 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
25222 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
25223 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
25224 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
25225 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
25226 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
25227 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
25228 OF SUCH DAMAGE.\n"
25229     },
25230   },
25231   "schemes": ["http"],
25232   "consumes": ["application/json"],
25233   "produces": ["application/json"],
25234   "paths": {
25235     "/mediaSourceListResURI" : {
25236       "get": {
25237         "description": "This resource provides the list of media sources available on the
25238 device.\nThe sources are an array of mediaSource(s) as separately defined.\nThe basic resource type
25239 oic.r.mediaSourceList does not provide any indications whether the source is input or
25240 output.\nHence, two specializations of this resource exist.\nWhen a device exposes input sources
25241 then an instance of this resource with a resource type of oic.r.media.input is exposed.\nWhen a
  
```

```

25242 device exposes output sources then an instance of this resource with a resource type of
25243 oic.r.media.output is exposed.\nA device that exposes both input and output media sources then
25244 exposes two instances of this resource,\none with a resource type of oic.r.media.input and one with
25245 a resource type of oic.r.media.output\n",
25246     "parameters": [
25247         { "$ref": "#/parameters/interface" }
25248     ],
25249     "responses": {
25250         "200": {
25251             "description": "",
25252             "x-example":
25253                 {
25254                     "rt": ["oic.r.mediasourcelist"],
25255                     "id": "unique_example_id",
25256                     "sources": [
25257                         {
25258                             "sourceName": "HDMI-CEC",
25259                             "sourceNumber": "1",
25260                             "sourceType": "audioPlusVideo",
25261                             "status": true
25262                         },
25263                         {
25264                             "sourceName": "dualRCA",
25265                             "sourceNumber": "1",
25266                             "sourceType": "audioOnly",
25267                             "status": false
25268                         }
25269                     ]
25270                 }
25271         },
25272         "schema": { "$ref": "#/definitions/mediaSourceList" }
25273     }
25274 },
25275 },
25276 "post": {
25277     "description": "Changes the status of the source(s).\nAllows changes of the sourceName and
25278 the status.\n",
25279     "parameters": [
25280         { "$ref": "#/parameters/interface" },
25281         {
25282             "name": "body",
25283             "in": "body",
25284             "required": true,
25285             "schema": { "$ref": "#/definitions/mediaSourceList" },
25286             "x-example":
25287                 {
25288                     "id": "unique_example_id",
25289                     "sources": [
25290                         {
25291                             "sourceName": "my new name",
25292                             "sourceNumber": "1",
25293                             "status": true
25294                         }
25295                     ]
25296                 }
25297         }
25298     ],
25299     "responses": {
25300         "200": {
25301             "description": "",
25302             "x-example":
25303                 {
25304                     "id": "unique_example_id",
25305                     "sources": [
25306                         {
25307                             "sourceName": "my new name",
25308                             "sourceNumber": "1",
25309                             "status": true
25310                         }
25311                     ]
25312                 }

```

```

25313         '
25314         "schema": { "$ref": "#/definitions/mediaSourceList" }
25315     }
25316 }
25317 }
25318 }
25319 },
25320 "parameters": {
25321     "interface" : {
25322         "in" : "query",
25323         "name" : "if",
25324         "type" : "string",
25325         "enum" : ["oic.if.a", "oic.if.baseline"]
25326     }
25327 },
25328 "definitions": {
25329     "mediaSourceList" :
25330     {
25331         "properties": {
25332             "id": {
25333                 "description": "Instance ID of this specific resource",
25334                 "maxLength": 64,
25335                 "readOnly": true,
25336                 "type": "string"
25337             },
25338             "if": {
25339                 "description": "The interface set supported by this resource",
25340                 "items": {
25341                     "enum": [
25342                         "oic.if.baseline",
25343                         "oic.if.ll",
25344                         "oic.if.b",
25345                         "oic.if.lb",
25346                         "oic.if.rw",
25347                         "oic.if.r",
25348                         "oic.if.a",
25349                         "oic.if.s"
25350                     ],
25351                     "type": "string"
25352                 },
25353                 "minItems": 1,
25354                 "readOnly": true,
25355                 "type": "array"
25356             },
25357             "n": {
25358                 "description": "Friendly name of the resource",
25359                 "maxLength": 64,
25360                 "readOnly": true,
25361                 "type": "string"
25362             },
25363             "precision": {
25364                 "description": "Accuracy granularity of the exposed value",
25365                 "readOnly": true,
25366                 "type": "number"
25367             },
25368             "range": {
25369                 "description": "The valid range for the value Property",
25370                 "items": {
25371                     "anyOf": [
25372                         {
25373                             "type": "number"
25374                         },
25375                         {
25376                             "type": "integer"
25377                         }
25378                     ]
25379                 },
25380                 "maxItems": 2,
25381                 "minItems": 2,
25382                 "readOnly": true,
25383                 "type": "array"

```



```

25384 },
25385 "rt": {
25386     "description": "Resource Type",
25387     "items": {
25388         "maxLength": 64,
25389         "type": "string"
25390     },
25391     "minItems": 1,
25392     "readOnly": true,
25393     "type": "array"
25394 },
25395 "sources": {
25396     "items": {
25397         "oneOf": [
25398             {
25399                 "properties": {
25400                     "sourceName": {
25401                         "description": "Specifies a pre-defined media input or output",
25402                         "type": "string"
25403                     },
25404                     "sourceNumber": {
25405                         "description": "Numeric identifier to specify the instance",
25406                         "readOnly": true,
25407                         "type": [
25408                             "integer",
25409                             "string"
25410                         ]
25411                     },
25412                     "sourceType": {
25413                         "description": "Specifies the type of the source",
25414                         "enum": [
25415                             "audioOnly",
25416                             "videoOnly",
25417                             "audioPlusVideo"
25418                         ],
25419                         "readOnly": true
25420                     },
25421                     "status": {
25422                         "description": "Specifies if the specific source instance is selected or
25423 not",
25424                         "type": "boolean"
25425                     }
25426                 }
25427             }
25428         ],
25429     },
25430     "type": "array"
25431 },
25432 "step": {
25433     "anyOf": [
25434         {
25435             "type": "integer"
25436         },
25437         {
25438             "type": "number"
25439         }
25440     ],
25441     "description": "Step value across the defined range",
25442     "readOnly": true
25443 },
25444 "value": {
25445     "anyOf": [
25446         {
25447             "type": "array"
25448         },
25449         {
25450             "type": "string"
25451         },
25452         {
25453             "type": "boolean"
25454         }
25455     ]
25456 }

```

```

25455         {
25456             "type": "integer"
25457         },
25458         {
25459             "type": "number"
25460         },
25461         {
25462             "type": "object"
25463         }
25464     ],
25465     "description": "The value sensed or actuated by this Resource"
25466 },
25467 },
25468 "required": [
25469     "sources"
25470 ]
25471 }
25472 }
25473 }
25474 }
25475

```

## 25476 B.50.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
sources	array: see schema	yes		
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource

## 25477 B.50.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/mediaSourceListResURI		get	post		

## 25478 B.51 Media Source Input

### 25479 B.51.1 Introduction

25480 This resource provides the list of input media sources available on the device.  
25481 The sources are an array of mediaSource(s) as separately defined.  
25482

## B.51.2 Example URI

/mediaSourceInputResURI

## B.51.3 Resource Type

The resource type (rt) is defined as: ['oic.r.media.input'].

## B.51.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Media Source Input",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/mediaSourceInputResURI" : {
      "get": {
        "description": "This resource provides the list of input media sources available on the
device.\nThe sources are an array of mediaSource(s) as separately defined.\n",
        "parameters": [
          {"$ref": "#/parameters/interface"}
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.media.input"],
              "id": "unique_example_id",
              "sources": [
                {
                  "sourceName": "HDMI-CEC",
                  "sourceNumber": "1",
                  "sourceType": "audioPlusVideo",
                  "status": true
                },
                {
                  "sourceName": "dualRCA",
                  "sourceNumber": "1",
                  "sourceType": "audioOnly",
                  "status": false
                }
              ]
            }
          }
        },
        "schema": { "$ref": "#/definitions/mediaSourceList" }
      }
    }
  }
}
```

```

25550     "post": {
25551         "description": "Changes the status of the source(s).\nAllows changes of the sourceName and
25552 the status.\n",
25553         "parameters": [
25554             { "$ref": "#/parameters/interface" },
25555             {
25556                 "name": "body",
25557                 "in": "body",
25558                 "required": true,
25559                 "schema": { "$ref": "#/definitions/mediaSourceList" },
25560                 "x-example":
25561                     {
25562                         "id": "unique_example_id",
25563                         "sources": [
25564                             {
25565                                 "sourceName": "my new name",
25566                                 "sourceNumber": "1",
25567                                 "status": true
25568                             }
25569                         ]
25570                     }
25571             }
25572         ],
25573         "responses": {
25574             "200": {
25575                 "description": "",
25576                 "x-example":
25577                     {
25578                         "id": "unique_example_id",
25579                         "sources": [
25580                             {
25581                                 "sourceName": "my new name",
25582                                 "sourceNumber": "1",
25583                                 "status": true
25584                             }
25585                         ]
25586                     }
25587             },
25588             "schema": { "$ref": "#/definitions/mediaSourceList" }
25589         }
25590     }
25591 },
25592 },
25593 },
25594 "parameters": {
25595     "interface": {
25596         "in": "query",
25597         "name": "if",
25598         "type": "string",
25599         "enum": ["oic.if.a", "oic.if.baseline"]
25600     }
25601 },
25602 "definitions": {
25603     "mediaSourceList": {
25604         {
25605             "properties": {
25606                 "id": {
25607                     "description": "Instance ID of this specific resource",
25608                     "maxLength": 64,
25609                     "readOnly": true,
25610                     "type": "string"
25611                 },
25612                 "if": {
25613                     "description": "The interface set supported by this resource",
25614                     "items": {
25615                         "enum": [
25616                             "oic.if.baseline",
25617                             "oic.if.ll",
25618                             "oic.if.b",
25619                             "oic.if.lb",
25620                             "oic.if.rw",

```

```

25621         "oic.if.r",
25622         "oic.if.a",
25623         "oic.if.s"
25624     ],
25625     "type": "string"
25626 },
25627     "minItems": 1,
25628     "readOnly": true,
25629     "type": "array"
25630 },
25631     "n": {
25632         "description": "Friendly name of the resource",
25633         "maxLength": 64,
25634         "readOnly": true,
25635         "type": "string"
25636     },
25637     "precision": {
25638         "description": "Accuracy granularity of the exposed value",
25639         "readOnly": true,
25640         "type": "number"
25641     },
25642     "range": {
25643         "description": "The valid range for the value Property",
25644         "items": {
25645             "anyOf": [
25646                 {
25647                     "type": "number"
25648                 },
25649                 {
25650                     "type": "integer"
25651                 }
25652             ]
25653         },
25654         "maxItems": 2,
25655         "minItems": 2,
25656         "readOnly": true,
25657         "type": "array"
25658     },
25659     "rt": {
25660         "description": "Resource Type",
25661         "items": {
25662             "maxLength": 64,
25663             "type": "string"
25664         },
25665         "minItems": 1,
25666         "readOnly": true,
25667         "type": "array"
25668     },
25669     "sources": {
25670         "items": {
25671             "oneOf": [
25672                 {
25673                     "properties": {
25674                         "sourceName": {
25675                             "description": "Specifies a pre-defined media input or output",
25676                             "type": "string"
25677                         },
25678                         "sourceNumber": {
25679                             "description": "Numeric identifier to specify the instance",
25680                             "readOnly": true,
25681                             "type": [
25682                                 "integer",
25683                                 "string"
25684                             ]
25685                         },
25686                         "sourceType": {
25687                             "description": "Specifies the type of the source",
25688                             "enum": [
25689                                 "audioOnly",
25690                                 "videoOnly",
25691                                 "audioPlusVideo"

```

```

25692         ],
25693         "readOnly": true
25694     },
25695     "status": {
25696         "description": "Specifies if the specific source instance is selected or
not",
25697         "type": "boolean"
25698     }
25699 }
25700 }
25701 }
25702 ],
25703 },
25704 "type": "array"
25705 },
25706 "step": {
25707     "anyOf": [
25708         {
25709             "type": "integer"
25710         },
25711         {
25712             "type": "number"
25713         }
25714     ],
25715     "description": "Step value across the defined range",
25716     "readOnly": true
25717 },
25718 "value": {
25719     "anyOf": [
25720         {
25721             "type": "array"
25722         },
25723         {
25724             "type": "string"
25725         },
25726         {
25727             "type": "boolean"
25728         },
25729         {
25730             "type": "integer"
25731         },
25732         {
25733             "type": "number"
25734         },
25735         {
25736             "type": "object"
25737         }
25738     ],
25739     "description": "The value sensed or actuated by this Resource"
25740 }
25741 },
25742 "required": [
25743     "sources"
25744 ]
25745 }
25746 }
25747 }
25748 }
25749

```

### B.51.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
id	string		Read Only	Instance ID of this specific resource
sources	array: see schema	yes		

step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
if	array: see schema		Read Only	The interface set supported by this resource

## 25751 B.51.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/mediaSourceInputResURI		get	post		

## 25752 B.52 Media Source Output

### 25753 B.52.1 Introduction

25754 This resource provides the list of output media sources available on the device.  
 25755 The sources are an array of mediaSource(s) as separately defined.  
 25756

### 25757 B.52.2 Example URI

25758 /mediaSourceOutputResURI

### 25759 B.52.3 Resource Type

25760 The resource type (rt) is defined as: ['oic.r.media.output'].

### 25761 B.52.4 Swagger2.0 Definition

```

25762 {
25763   "swagger": "2.0",
25764   "info": {
25765     "title": "Media Source Output",
25766     "version": "v1.1.0-20160519",
25767     "license": {
25768       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
25769       "x-description": "Redistribution and use in source and binary forms, with or without
25770 modification, are permitted provided that the following conditions are met:\n      1.
25771 Redistributions of source code must retain the above copyright notice, this list of conditions and
25772 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
25773 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
25774 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open
25775 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
25776 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
25777 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
25778 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
25779 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
25780 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
25781 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
25782 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
  
```

```

25783 OF SUCH DAMAGE.\n"
25784     }
25785 },
25786 "schemes": ["http"],
25787 "consumes": ["application/json"],
25788 "produces": ["application/json"],
25789 "paths": {
25790     "/mediaSourceOutputResURI" : {
25791         "get": {
25792             "description": "This resource provides the list of output media sources available on the
25793 device.\n\nThe sources are an array of mediaSource(s) as separately defined.\n",
25794             "parameters": [
25795                 { "$ref": "#/parameters/interface" }
25796             ],
25797             "responses": {
25798                 "200": {
25799                     "description": "",
25800                     "x-example":
25801                     {
25802                         "rt": ["oic.r.media.output"],
25803                         "id": "unique_example_id",
25804                         "sources": [
25805                             {
25806                                 "sourceName": "HDMI-CEC",
25807                                 "sourceNumber": "1",
25808                                 "sourceType": "audioPlusVideo",
25809                                 "status": true
25810                             },
25811                             {
25812                                 "sourceName": "dualRCA",
25813                                 "sourceNumber": "1",
25814                                 "sourceType": "audioOnly",
25815                                 "status": false
25816                             }
25817                         ]
25818                     }
25819                 },
25820                 "schema": { "$ref": "#/definitions/mediaSourceList" }
25821             }
25822         }
25823     },
25824     "post": {
25825         "description": "Changes the status of the source(s).\n\nAllows changes of the sourceName and
25826 the status.\n",
25827         "parameters": [
25828             { "$ref": "#/parameters/interface" },
25829             {
25830                 "name": "body",
25831                 "in": "body",
25832                 "required": true,
25833                 "schema": { "$ref": "#/definitions/mediaSourceList" },
25834                 "x-example":
25835                 {
25836                     "id": "unique_example_id",
25837                     "sources": [
25838                         {
25839                             "sourceName": "my new name",
25840                             "sourceNumber": "1",
25841                             "status": true
25842                         }
25843                     ]
25844                 }
25845             }
25846         ],
25847         "responses": {
25848             "200": {
25849                 "description": "",
25850                 "x-example":
25851                 {
25852                     "id": "unique_example_id",
25853                     "sources": [

```



```

25854         {
25855             "sourceName": "my new name",
25856             "sourceNumber": "1",
25857             "status": true
25858         }
25859     ]
25860 }
25861 ,
25862 "schema": { "$ref": "#/definitions/mediaSourceList" }
25863 }
25864 }
25865 }
25866 },
25867 {
25868     "parameters": {
25869         "interface": {
25870             "in": "query",
25871             "name": "if",
25872             "type": "string",
25873             "enum": ["oic.if.a", "oic.if.baseline"]
25874         }
25875     },
25876     "definitions": {
25877         "mediaSourceList": {
25878             {
25879                 "properties": {
25880                     "id": {
25881                         "description": "Instance ID of this specific resource",
25882                         "maxLength": 64,
25883                         "readOnly": true,
25884                         "type": "string"
25885                     },
25886                     "if": {
25887                         "description": "The interface set supported by this resource",
25888                         "items": {
25889                             "enum": [
25890                                 "oic.if.baseline",
25891                                 "oic.if.ll",
25892                                 "oic.if.b",
25893                                 "oic.if.lb",
25894                                 "oic.if.rw",
25895                                 "oic.if.r",
25896                                 "oic.if.a",
25897                                 "oic.if.s"
25898                             ],
25899                             "type": "string"
25900                         },
25901                         "minItems": 1,
25902                         "readOnly": true,
25903                         "type": "array"
25904                     },
25905                     "n": {
25906                         "description": "Friendly name of the resource",
25907                         "maxLength": 64,
25908                         "readOnly": true,
25909                         "type": "string"
25910                     },
25911                     "precision": {
25912                         "description": "Accuracy granularity of the exposed value",
25913                         "readOnly": true,
25914                         "type": "number"
25915                     },
25916                     "range": {
25917                         "description": "The valid range for the value Property",
25918                         "items": {
25919                             "anyOf": [
25920                                 {
25921                                     "type": "number"
25922                                 },
25923                                 {
25924                                     "type": "integer"

```

```

25925         }
25926     ]
25927 },
25928 "maxItems": 2,
25929 "minItems": 2,
25930 "readOnly": true,
25931 "type": "array"
25932 },
25933 "rt": {
25934     "description": "Resource Type",
25935     "items": {
25936         "maxLength": 64,
25937         "type": "string"
25938     },
25939     "minItems": 1,
25940     "readOnly": true,
25941     "type": "array"
25942 },
25943 "sources": {
25944     "items": {
25945         "oneOf": [
25946             {
25947                 "properties": {
25948                     "sourceName": {
25949                         "description": "Specifies a pre-defined media input or output",
25950                         "type": "string"
25951                     },
25952                     "sourceNumber": {
25953                         "description": "Numeric identifier to specify the instance",
25954                         "readOnly": true,
25955                         "type": [
25956                             "integer",
25957                             "string"
25958                         ]
25959                     },
25960                     "sourceType": {
25961                         "description": "Specifies the type of the source",
25962                         "enum": [
25963                             "audioOnly",
25964                             "videoOnly",
25965                             "audioPlusVideo"
25966                         ],
25967                         "readOnly": true
25968                     },
25969                     "status": {
25970                         "description": "Specifies if the specific source instance is selected or
25971 not",
25972                         "type": "boolean"
25973                     }
25974                 }
25975             }
25976         ]
25977     },
25978     "type": "array"
25979 },
25980 "step": {
25981     "anyOf": [
25982         {
25983             "type": "integer"
25984         },
25985         {
25986             "type": "number"
25987         }
25988     ],
25989     "description": "Step value across the defined range",
25990     "readOnly": true
25991 },
25992 "value": {
25993     "anyOf": [
25994         {
25995             "type": "array"

```

```

25996         },
25997         {
25998             "type": "string"
25999         },
26000         {
26001             "type": "boolean"
26002         },
26003         {
26004             "type": "integer"
26005         },
26006         {
26007             "type": "number"
26008         },
26009         {
26010             "type": "object"
26011         }
26012     ],
26013     "description": "The value sensed or actuated by this Resource"
26014 },
26015 },
26016 "required": [
26017     "sources"
26018 ]
26019 }
26020
26021 }
26022 }
26023

```

## B.52.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
sources	array: see schema	yes		
n	string		Read Only	Friendly name of the resource
range	array: see schema		Read Only	The valid range for the value Property
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource

## B.52.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/mediaSourceOutputResURI		get	post		

## B.53 Mode

### B.53.1 Introduction

This resource describes the modes of operation that a device can provide. The mode can be read or set. The supportedModes is an array of possible modes the device supports. The modes are an array of the currently active mode(s). Retrieves the current mode.

### B.53.2 Example URI

/ModeResURI

### B.53.3 Resource Type

The resource type (rt) is defined as: ['oic.r.mode'].

### B.53.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Mode",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/ModeResURI" : {
      "get": {
        "description": "This resource describes the modes of operation that a device can
provide.\nThe mode can be read or set.\nThe supportedModes is an array of possible modes the device
supports.\nThe modes are an array of the currently active mode(s).\nRetrieves the current mode.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.mode"],
              "id": "unique_example_id",
              "supportedModes": ["active", "armedAway", "armedStay", "armedInstant"],
              "modes": ["active"]
            }
          },
          "schema": { "$ref": "#/definitions/Mode" }
        }
      }
    }
  }
}
```

```

26088     }
26089   },
26090   "post": {
26091     "description": "Sets the desired mode.\n",
26092     "parameters": [
26093       { "$ref": "#/parameters/interface" },
26094       {
26095         "name": "body",
26096         "in": "body",
26097         "required": true,
26098         "schema": { "$ref": "#/definitions/ModeUpdate" },
26099         "x-example":
26100           {
26101             "id": "unique_example_id",
26102             "modes": ["armedAway"]
26103           }
26104       }
26105     ],
26106     "responses": {
26107       "200": {
26108         "description": "",
26109         "x-example":
26110           {
26111             "id": "unique_example_id",
26112             "modes": ["armedAway"]
26113           },
26114         "schema": { "$ref": "#/definitions/ModeUpdate" }
26115       },
26116       "403": {
26117         "description": "This response is generated by the OIC Server when the client
26118 sends:\n An update with an value for mode that is not found in supportedModes.\nThe server
26119 responds with the current resource representation.\n",
26120         "x-example":
26121           {
26122             "id": "unique_example_id",
26123             "supportedModes": ["active", "armedAway", "armedStay", "armedInstant"],
26124             "modes": ["active"]
26125           },
26126         "schema": { "$ref": "#/definitions/Mode" }
26127       }
26128     }
26129   }
26130 }
26131 }
26132 }
26133 },
26134 "parameters": {
26135   "interface" : {
26136     "in" : "query",
26137     "name" : "if",
26138     "type" : "string",
26139     "enum" : ["oic.if.a", "oic.if.baseline"]
26140   }
26141 },
26142 "definitions": {
26143   "Mode" :
26144     {
26145       "properties": {
26146         "id": {
26147           "description": "Instance ID of this specific resource",
26148           "maxLength": 64,
26149           "readOnly": true,
26150           "type": "string"
26151         },
26152         "if": {
26153           "description": "The interface set supported by this resource",
26154           "items": {
26155             "enum": [
26156               "oic.if.baseline",
26157               "oic.if.ll",
26158               "oic.if.b",

```

```

26159         "oic.if.lb",
26160         "oic.if.rw",
26161         "oic.if.r",
26162         "oic.if.a",
26163         "oic.if.s"
26164     ],
26165     "type": "string"
26166 },
26167 "minItems": 1,
26168 "readOnly": true,
26169 "type": "array"
26170 },
26171 "modes": {
26172     "description": "Array of the currently active mode(s)",
26173     "items": {
26174         "type": "string"
26175     },
26176     "type": "array"
26177 },
26178 "n": {
26179     "description": "Friendly name of the resource",
26180     "maxLength": 64,
26181     "readOnly": true,
26182     "type": "string"
26183 },
26184 "precision": {
26185     "description": "Accuracy granularity of the exposed value",
26186     "readOnly": true,
26187     "type": "number"
26188 },
26189 "range": {
26190     "description": "The valid range for the value Property",
26191     "items": {
26192         "anyOf": [
26193             {
26194                 "type": "number"
26195             },
26196             {
26197                 "type": "integer"
26198             }
26199         ]
26200     },
26201     "maxItems": 2,
26202     "minItems": 2,
26203     "readOnly": true,
26204     "type": "array"
26205 },
26206 "rt": {
26207     "description": "Resource Type",
26208     "items": {
26209         "maxLength": 64,
26210         "type": "string"
26211     },
26212     "minItems": 1,
26213     "readOnly": true,
26214     "type": "array"
26215 },
26216 "step": {
26217     "anyOf": [
26218         {
26219             "type": "integer"
26220         },
26221         {
26222             "type": "number"
26223         }
26224     ],
26225     "description": "Step value across the defined range",
26226     "readOnly": true
26227 },
26228 "supportedModes": {
26229     "description": "Array of possible modes the device supports.",

```

```

26230         "items": {
26231             "type": "string"
26232         },
26233         "readOnly": true,
26234         "type": "array"
26235     },
26236     "value": {
26237         "anyOf": [
26238             {
26239                 "type": "array"
26240             },
26241             {
26242                 "type": "string"
26243             },
26244             {
26245                 "type": "boolean"
26246             },
26247             {
26248                 "type": "integer"
26249             },
26250             {
26251                 "type": "number"
26252             },
26253             {
26254                 "type": "object"
26255             }
26256         ],
26257         "description": "The value sensed or actuated by this Resource"
26258     }
26259 },
26260 "required": [
26261     "supportedModes",
26262     "modes"
26263 ],
26264 "type": "object"
26265 }
26266
26267 ,
26268 "ModeUpdate" :
26269 {
26270     "properties": {
26271         "id": {
26272             "description": "Instance ID of this specific resource",
26273             "maxLength": 64,
26274             "readOnly": true,
26275             "type": "string"
26276         },
26277         "if": {
26278             "description": "The interface set supported by this resource",
26279             "items": {
26280                 "enum": [
26281                     "oic.if.baseline",
26282                     "oic.if.ll",
26283                     "oic.if.b",
26284                     "oic.if.lb",
26285                     "oic.if.rw",
26286                     "oic.if.r",
26287                     "oic.if.a",
26288                     "oic.if.s"
26289                 ],
26290                 "type": "string"
26291             },
26292             "minItems": 1,
26293             "readOnly": true,
26294             "type": "array"
26295         },
26296         "modes": {
26297             "description": "Desired mode",
26298             "items": {
26299                 "type": "string"
26300             },

```

```

26301         "type": "array"
26302     },
26303     "n": {
26304         "description": "Friendly name of the resource",
26305         "maxLength": 64,
26306         "readOnly": true,
26307         "type": "string"
26308     },
26309     "precision": {
26310         "description": "Accuracy granularity of the exposed value",
26311         "readOnly": true,
26312         "type": "number"
26313     },
26314     "range": {
26315         "description": "The valid range for the value Property",
26316         "items": {
26317             "anyOf": [
26318                 {
26319                     "type": "number"
26320                 },
26321                 {
26322                     "type": "integer"
26323                 }
26324             ]
26325         },
26326         "maxItems": 2,
26327         "minItems": 2,
26328         "readOnly": true,
26329         "type": "array"
26330     },
26331     "rt": {
26332         "description": "Resource Type",
26333         "items": {
26334             "maxLength": 64,
26335             "type": "string"
26336         },
26337         "minItems": 1,
26338         "readOnly": true,
26339         "type": "array"
26340     },
26341     "step": {
26342         "anyOf": [
26343             {
26344                 "type": "integer"
26345             },
26346             {
26347                 "type": "number"
26348             }
26349         ],
26350         "description": "Step value across the defined range",
26351         "readOnly": true
26352     },
26353     "value": {
26354         "anyOf": [
26355             {
26356                 "type": "array"
26357             },
26358             {
26359                 "type": "string"
26360             },
26361             {
26362                 "type": "boolean"
26363             },
26364             {
26365                 "type": "integer"
26366             },
26367             {
26368                 "type": "number"
26369             },
26370             {
26371                 "type": "object"

```



```

26372     }
26373     ],
26374     "description": "The value sensed or actuated by this Resource"
26375   }
26376 },
26377 "required": [
26378   "modes"
26379 ],
26380 "type": "object"
26381 }
26382 }
26383 }
26384 }
26385

```

### B.53.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
supportedModes	array: see schema	yes	Read Only	Array of possible modes the device supports.
n	string		Read Only	Friendly name of the resource
modes	array: see schema	yes		Array of the currently active mode(s)
rt	array: see schema		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource

n	string		Read Only	Friendly name of the resource
modes	array: see schema	yes		Desired mode
rt	array: see schema		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource

### 26387 B.53.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ModeResURI		get	post		

## 26388 B.54 Motion Sensor

### 26389 B.54.1 Introduction

26390 This resource describes whether motion has been sensed or not.  
26391 The value is a boolean.  
26392 A value of 'true' means that motion has been sensed.  
26393 A value of 'false' means that motion not been sensed.  
26394

### 26395 B.54.2 Example URI

26396 /MotionResURI

### 26397 B.54.3 Resource Type

26398 The resource type (rt) is defined as: ['oic.r.sensor.motion'].

### 26399 B.54.4 Swagger2.0 Definition

```

26400 {
26401   "swagger": "2.0",
26402   "info": {
26403     "title": "Motion Sensor",
26404     "version": "v1.1.0-20160519",
26405     "license": {
26406       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
26407       "x-description": "Redistribution and use in source and binary forms, with or without
26408 modification, are permitted provided that the following conditions are met:\n      1.
26409 Redistributions of source code must retain the above copyright notice, this list of conditions and
26410 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
26411 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
26412 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
26413 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
26414 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
26415 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
26416 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
26417 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
26418 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
26419 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
26420 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
26421 OF SUCH DAMAGE.\n"
26422   },
26423 },
26424 "schemes": ["http"],
26425 "consumes": ["application/json"],
26426 "produces": ["application/json"],
26427 "paths": {

```

```

26428     "/MotionResURI" : {
26429         "get": {
26430             "description": "This resource describes whether motion has been sensed or not.\nThe value
26431 is a boolean.\nA value of 'true' means that motion has been sensed.\nA value of 'false' means that
26432 motion not been sensed.\n",
26433             "parameters": [
26434                 {"$ref": "#/parameters/interface"}
26435             ],
26436             "responses": {
26437                 "200": {
26438                     "description" : "",
26439                     "x-example":
26440                     {
26441                         "rt":      ["oic.r.sensor.motion"],
26442                         "id":      "unique_example_id",
26443                         "value": true
26444                     }
26445                     ,
26446                     "schema": { "$ref": "#/definitions/Motion" }
26447                 }
26448             }
26449         }
26450     },
26451     "parameters": {
26452         "interface" : {
26453             "in" : "query",
26454             "name" : "if",
26455             "type" : "string",
26456             "enum" : ["oic.if.s", "oic.if.baseline"]
26457         }
26458     },
26459     "definitions": {
26460         "Motion" :
26461         {
26462             "properties": {
26463                 "id": {
26464                     "description": "Instance ID of this specific resource",
26465                     "maxLength": 64,
26466                     "readOnly": true,
26467                     "type": "string"
26468                 },
26469                 "if": {
26470                     "description": "The interface set supported by this resource",
26471                     "items": {
26472                         "enum": [
26473                             "oic.if.baseline",
26474                             "oic.if.ll",
26475                             "oic.if.b",
26476                             "oic.if.lb",
26477                             "oic.if.rw",
26478                             "oic.if.r",
26479                             "oic.if.a",
26480                             "oic.if.s"
26481                         ],
26482                         "type": "string"
26483                     },
26484                     "minItems": 1,
26485                     "readOnly": true,
26486                     "type": "array"
26487                 },
26488                 "n": {
26489                     "description": "Friendly name of the resource",
26490                     "maxLength": 64,
26491                     "readOnly": true,
26492                     "type": "string"
26493                 },
26494                 "precision": {
26495                     "description": "Accuracy granularity of the exposed value",
26496                     "readOnly": true,
26497                     "type": "number"
26498                 }

```

```

26499     },
26500     "range": {
26501         "description": "The valid range for the value Property",
26502         "items": {
26503             "anyOf": [
26504                 {
26505                     "type": "number"
26506                 },
26507                 {
26508                     "type": "integer"
26509                 }
26510             ]
26511         },
26512         "maxItems": 2,
26513         "minItems": 2,
26514         "readOnly": true,
26515         "type": "array"
26516     },
26517     "rt": {
26518         "description": "Resource Type",
26519         "items": {
26520             "maxLength": 64,
26521             "type": "string"
26522         },
26523         "minItems": 1,
26524         "readOnly": true,
26525         "type": "array"
26526     },
26527     "step": {
26528         "anyOf": [
26529             {
26530                 "type": "integer"
26531             },
26532             {
26533                 "type": "number"
26534             }
26535         ],
26536         "description": "Step value across the defined range",
26537         "readOnly": true
26538     },
26539     "value": {
26540         "description": "true = sensed, false = not sensed.",
26541         "readOnly": true,
26542         "type": "boolean"
26543     }
26544 },
26545 "required": [
26546     "value"
26547 ],
26548 "type": "object"
26549 }
26550
26551 }
26552 }
26553

```

#### B.54.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
if	array: see schema		Read Only	The interface set supported by this resource
value	boolean	yes	Read Only	true = sensed, false = not sensed.
n	string		Read Only	Friendly name of the resource

precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type
id	string		Read Only	Instance ID of this specific resource

## B.54.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/MotionResURI		get			

## B.55 Movement

### B.55.1 Introduction

This resource specifies linear movement. The movementSettings is an array of strings containing possible movement values (e.g. spin, stop, left, right). The movement is the currently selected movement value. The movementModifier is a modifier to the movement value (e.g. "spin", "90")

### B.55.2 Example URI

/MovementResURI

### B.55.3 Resource Type

The resource type (rt) is defined as: ['oic.r.movement.linear'].

### B.55.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Movement",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n
1. Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n
2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n
THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n
IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n
HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
}
```

```

26594     "consumes": ["application/json"],
26595     "produces": ["application/json"],
26596     "paths": {
26597         "/MovementResURI" : {
26598             "get": {
26599                 "description": "This resource specifies linear movement.\nThe movementSettings is an array
26600 of strings containing possible movement values (e.g. spin, stop, left, right).\nThe movement is the
26601 currently selected movement value.\nThe movementModifier is a modifier to the movement value (e.g.
26602 \spin\", \"90\")\n",
26603                 "parameters": [
26604                     {"$ref": "#/parameters/interface"}
26605                 ],
26606                 "responses": {
26607                     "200": {
26608                         "description": "",
26609                         "x-example":
26610                         {
26611                             "rt": ["oic.r.movement.linear"],
26612                             "id": "unique_example_id",
26613                             "movementSettings": ["stop", "left", "right", "rotate", "forward", "backward"],
26614                             "movement": "rotate",
26615                             "movementModifier": "90"
26616                         }
26617                     },
26618                     "schema": { "$ref": "#/definitions/movement" }
26619                 }
26620             }
26621         },
26622         "post": {
26623             "description": "Sets the current device movement\n",
26624             "parameters": [
26625                 {"$ref": "#/parameters/interface"},
26626                 {
26627                     "name": "body",
26628                     "in": "body",
26629                     "required": true,
26630                     "schema": { "$ref": "#/definitions/movement" },
26631                     "x-example":
26632                     {
26633                         "id": "unique_example_id",
26634                         "movementSettings": ["stop", "left", "right", "rotate", "forward", "backward"],
26635                         "movement": "stop"
26636                     }
26637                 }
26638             ],
26639             "responses": {
26640                 "200": {
26641                     "description": "",
26642                     "x-example":
26643                     {
26644                         "id": "unique_example_id",
26645                         "movementSettings": ["stop", "left", "right", "rotate", "forward", "backward"],
26646                         "movement": "stop"
26647                     }
26648                 },
26649                 "schema": { "$ref": "#/definitions/movement" }
26650             }
26651         }
26652     }
26653 },
26654 {
26655     "parameters": {
26656         "interface" : {
26657             "in": "query",
26658             "name": "if",
26659             "type": "string",
26660             "enum": ["oic.if.s", "oic.if.baseline"]
26661         }
26662     },
26663     "definitions": {
26664         "movement" :

```

```

26665     {
26666     "properties": {
26667         "id": {
26668             "description": "Instance ID of this specific resource",
26669             "maxLength": 64,
26670             "readOnly": true,
26671             "type": "string"
26672         },
26673         "if": {
26674             "description": "The interface set supported by this resource",
26675             "items": {
26676                 "enum": [
26677                     "oic.if.baseline",
26678                     "oic.if.ll",
26679                     "oic.if.b",
26680                     "oic.if.lb",
26681                     "oic.if.rw",
26682                     "oic.if.x",
26683                     "oic.if.a",
26684                     "oic.if.s"
26685                 ],
26686                 "type": "string"
26687             },
26688             "minItems": 1,
26689             "readOnly": true,
26690             "type": "array"
26691         },
26692         "movement": {
26693             "description": "Current movement value",
26694             "type": "string"
26695         },
26696         "movementModifier": {
26697             "description": "Modifier to the movement value (e.g. spin-90, left-20), units are
26698 device dependent",
26699             "type": "string"
26700         },
26701         "movementSettings": {
26702             "description": "array of possible movement values",
26703             "items": {
26704                 "type": "string"
26705             },
26706             "readOnly": true,
26707             "type": "array"
26708         },
26709         "n": {
26710             "description": "Friendly name of the resource",
26711             "maxLength": 64,
26712             "readOnly": true,
26713             "type": "string"
26714         },
26715         "precision": {
26716             "description": "Accuracy granularity of the exposed value",
26717             "readOnly": true,
26718             "type": "number"
26719         },
26720         "range": {
26721             "description": "The valid range for the value Property",
26722             "items": {
26723                 "anyOf": [
26724                     {
26725                         "type": "number"
26726                     },
26727                     {
26728                         "type": "integer"
26729                     }
26730                 ]
26731             },
26732             "maxItems": 2,
26733             "minItems": 2,
26734             "readOnly": true,
26735             "type": "array"

```

```

26736     },
26737     "rt": {
26738         "description": "Resource Type",
26739         "items": {
26740             "maxLength": 64,
26741             "type": "string"
26742         },
26743         "minItems": 1,
26744         "readOnly": true,
26745         "type": "array"
26746     },
26747     "step": {
26748         "anyOf": [
26749             {
26750                 "type": "integer"
26751             },
26752             {
26753                 "type": "number"
26754             }
26755         ],
26756         "description": "Step value across the defined range",
26757         "readOnly": true
26758     },
26759     "value": {
26760         "anyOf": [
26761             {
26762                 "type": "array"
26763             },
26764             {
26765                 "type": "string"
26766             },
26767             {
26768                 "type": "boolean"
26769             },
26770             {
26771                 "type": "integer"
26772             },
26773             {
26774                 "type": "number"
26775             },
26776             {
26777                 "type": "object"
26778             }
26779         ],
26780         "description": "The value sensed or actuated by this Resource"
26781     }
26782 },
26783 "required": [
26784     "movementSettings",
26785     "movement"
26786 ],
26787 "type": "object"
26788 }
26789 }
26790 }
26791 }
26792

```

### B.55.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
movementModifier	string			Modifier to the movement value (e.g. spin-90, left-20), units are device dependent



id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
movementSettings	array: see schema	yes	Read Only	array of possible movement values
rt	array: see schema		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
movement	string	yes		Current movement value

## 26794 B.55.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/MovementResURI		get	post		

## 26795 B.56 Night Mode

### 26796 B.56.1 Introduction

26797 This resource describes a night mode on/off feature.  
26798 A nightMode value of 'true' means that the feature is on.  
26799 A nightMode value of 'false' means that the feature is off.  
26800

### 26801 B.56.2 Example URI

26802 /NightModeResURI

### 26803 B.56.3 Resource Type

26804 The resource type (rt) is defined as: ['oic.r.nightmode'].

### 26805 B.56.4 Swagger2.0 Definition

```

26806 {
26807   "swagger": "2.0",
26808   "info": {
26809     "title": "Night Mode",
26810     "version": "v1.1.0-20160519",
26811     "license": {
26812       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
26813       "x-description": "Redistribution and use in source and binary forms, with or without
26814 modification, are permitted provided that the following conditions are met:\n      1.
26815 Redistributions of source code must retain the above copyright notice, this list of conditions and
```

```

26816 the following disclaimer.\n          2. Redistributions in binary form must reproduce the above
26817 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
26818 other materials provided with the distribution.\n\n          THIS SOFTWARE IS PROVIDED BY THE Open
26819 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
26820 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
26821 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n          IN NO EVENT SHALL THE Open Connectivity
26822 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
26823 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
26824 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
26825 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
26826 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
26827 OF SUCH DAMAGE.\n"
26828     },
26829     },
26830     "schemes": ["http"],
26831     "consumes": ["application/json"],
26832     "produces": ["application/json"],
26833     "paths": {
26834         "/NightModeResURI" : {
26835             "get": {
26836                 "description": "This resource describes a night mode on/off feature.\nA nightMode value of
26837 'true' means that the feature is on.\nA nightMode value of 'false' means that the feature is
26838 off.\n",
26839                 "parameters": [
26840                     { "$ref": "#/parameters/interface" }
26841                 ],
26842                 "responses": {
26843                     "200": {
26844                         "description": "",
26845                         "x-example": {
26846                             {
26847                                 "rt": ["oic.r.nightmode"],
26848                                 "id": "unique_example_id",
26849                                 "nightMode": false
26850                             }
26851                         },
26852                         "schema": { "$ref": "#/definitions/NightMode" }
26853                     }
26854                 }
26855             },
26856             "post": {
26857                 "description": "",
26858                 "parameters": [
26859                     { "$ref": "#/parameters/interface" },
26860                     {
26861                         "name": "body",
26862                         "in": "body",
26863                         "required": true,
26864                         "schema": { "$ref": "#/definitions/NightMode" },
26865                         "x-example": {
26866                             {
26867                                 "id": "unique_example_id",
26868                                 "nightMode": true
26869                             }
26870                         }
26871                     }
26872                 ],
26873                 "responses": {
26874                     "200": {
26875                         "description": "",
26876                         "x-example": {
26877                             {
26878                                 "id": "unique_example_id",
26879                                 "nightMode": true
26880                             }
26881                         },
26882                         "schema": { "$ref": "#/definitions/NightMode" }
26883                     }
26884                 }
26885             }
26886         }

```

```

26887 "parameters": {
26888   "interface" : {
26889     "in" : "query",
26890     "name" : "if",
26891     "type" : "string",
26892     "enum" : ["oic.if.a", "oic.if.baseline"]
26893   }
26894 },
26895 "definitions": {
26896   "NightMode" :
26897     {
26898     "properties": {
26899       "id": {
26900         "description": "Instance ID of this specific resource",
26901         "maxLength": 64,
26902         "readOnly": true,
26903         "type": "string"
26904       },
26905       "if": {
26906         "description": "The interface set supported by this resource",
26907         "items": {
26908           "enum": [
26909             "oic.if.baseline",
26910             "oic.if.ll",
26911             "oic.if.b",
26912             "oic.if.lb",
26913             "oic.if.rw",
26914             "oic.if.x",
26915             "oic.if.a",
26916             "oic.if.s"
26917           ],
26918           "type": "string"
26919         },
26920         "minItems": 1,
26921         "readOnly": true,
26922         "type": "array"
26923       },
26924       "n": {
26925         "description": "Friendly name of the resource",
26926         "maxLength": 64,
26927         "readOnly": true,
26928         "type": "string"
26929       },
26930       "nightMode": {
26931         "description": "Status of the Night Mode",
26932         "type": "boolean"
26933       },
26934       "precision": {
26935         "description": "Accuracy granularity of the exposed value",
26936         "readOnly": true,
26937         "type": "number"
26938       },
26939       "range": {
26940         "description": "The valid range for the value Property",
26941         "items": {
26942           "anyOf": [
26943             {
26944               "type": "number"
26945             },
26946             {
26947               "type": "integer"
26948             }
26949           ]
26950         },
26951         "maxItems": 2,
26952         "minItems": 2,
26953         "readOnly": true,
26954         "type": "array"
26955       },
26956       "rt": {
26957         "description": "Resource Type",

```

```

26958         "items": {
26959             "maxLength": 64,
26960             "type": "string"
26961         },
26962         "minItems": 1,
26963         "readOnly": true,
26964         "type": "array"
26965     },
26966     "step": {
26967         "anyOf": [
26968             {
26969                 "type": "integer"
26970             },
26971             {
26972                 "type": "number"
26973             }
26974         ],
26975         "description": "Step value across the defined range",
26976         "readOnly": true
26977     },
26978     "value": {
26979         "anyOf": [
26980             {
26981                 "type": "array"
26982             },
26983             {
26984                 "type": "string"
26985             },
26986             {
26987                 "type": "boolean"
26988             },
26989             {
26990                 "type": "integer"
26991             },
26992             {
26993                 "type": "number"
26994             },
26995             {
26996                 "type": "object"
26997             }
26998         ],
26999         "description": "The value sensed or actuated by this Resource"
27000     }
27001 },
27002 "required": [
27003     "nightMode"
27004 ],
27005 "type": "object"
27006 }
27007
27008 }
27009
27010

```

#### B.56.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
n	string		Read Only	Friendly name of the resource
nightMode	boolean	yes		Status of the Night Mode
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property

rt	array: see schema		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource

## 27012 B.56.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/NightModeResURI		get	post		

## 27013 B.57 Open Level

### 27014 B.57.1 Introduction

27015 This resource describes how open or ajar an entity such as a window, door, blind or shutter is.  
 27016 The openLevel can be read (acting as a sensor).  
 27017 The openLevel can also be set (acting as an actuator).  
 27018 The openLevel is device dependent across the range provided.  
 27019 When range (from oic.r.baseresource) is omitted then 0 to 100 is assumed where 0 means closed,  
 27020 100 means fully open.  
 27021 If a range is provided then the lower bound=closed, upper bound=open.  
 27022 If step (from oic.r.baseresource) is present then it represents the increment between possible  
 27023 values; if not provided 1 is assumed.  
 27024 Retrieves the current openLevel.

27025

### 27026 B.57.2 Example URI

27027 /OpenLevelResURI

### 27028 B.57.3 Resource Type

27029 The resource type (rt) is defined as: ['oic.r.openlevel'].

### 27030 B.57.4 Swagger2.0 Definition

```

27031 {
27032   "swagger": "2.0",
27033   "info": {
27034     "title": "Open Level",
27035     "version": "v1.1.0-20160519",
27036     "license": {
27037       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
27038       "x-description": "Redistribution and use in source and binary forms, with or without
27039 modification, are permitted provided that the following conditions are met:\n      1.
27040 Redistributions of source code must retain the above copyright notice, this list of conditions and
27041 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
27042 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
27043 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open
27044 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
27045 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
27046 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
27047 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
27048 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
```

```

27049 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
27050 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
27051 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
27052 OF SUCH DAMAGE.\n"
27053 }
27054 },
27055 "schemes": ["http"],
27056 "consumes": ["application/json"],
27057 "produces": ["application/json"],
27058 "paths": {
27059     "/OpenLevelResURI" : {
27060         "get": {
27061             "description": "This resource describes how open or ajar an entity such as a window, door,
27062 blind or shutter is.\nThe openLevel can be read (acting as a sensor).\nThe openLevel can also be
27063 set (acting as an actuator).\nThe openLevel is device dependent across the range provided.\nWhen
27064 range (from oic.r.baseresource) is omitted then 0 to 100 is assumed where 0 means closed, 100 means
27065 fully open.\nIf a range is provided then the lower bound=closed, upper bound=open.\nIf step (from
27066 oic.r.baseresource) is present then it represents the increment between possible values; if not
27067 provided 1 is assumed.\nRetrieves the current openLevel.\n",
27068             "parameters": [
27069                 {"$ref": "#/parameters/interface"}
27070             ],
27071             "responses": {
27072                 "200": {
27073                     "description": "",
27074                     "x-example":
27075                     {
27076                         "rt": ["oic.r.openlevel"],
27077                         "id": "unique_example_id",
27078                         "openLevel": 50,
27079                         "step": 2,
27080                         "range": [0,100]
27081                     }
27082                 },
27083                 "schema": { "$ref": "#/definitions/OpenLevel" }
27084             }
27085         },
27086     },
27087     "post": {
27088         "description": "Sets the desired openLevel.\n",
27089         "parameters": [
27090             {"$ref": "#/parameters/interface"},
27091             {
27092                 "name": "body",
27093                 "in": "body",
27094                 "required": true,
27095                 "schema": { "$ref": "#/definitions/OpenLevel" },
27096                 "x-example":
27097                 {
27098                     "id": "unique_example_id",
27099                     "openLevel": 0
27100                 }
27101             }
27102         ],
27103         "responses": {
27104             "200": {
27105                 "description": "",
27106                 "x-example":
27107                 {
27108                     "id": "unique_example_id",
27109                     "openLevel": 0
27110                 }
27111             },
27112             "schema": { "$ref": "#/definitions/OpenLevel" }
27113         },
27114         "403": {
27115             "description": "This response is generated by the OIC Server when the client
27116 sends:\n An update with an out of range property value for openLevel.\nThe server responds with
27117 the current resource representation.\n",
27118             "x-example":
27119             {

```

```

27120         "id": "unique_example_id",
27121         "openLevel": 50,
27122         "step": 2,
27123         "range": [0,100]
27124     }
27125     ,
27126     "schema": { "$ref": "#/definitions/OpenLevel" }
27127 }
27128 }
27129 }
27130 }
27131 },
27132 "parameters": {
27133     "interface" : {
27134         "in" : "query",
27135         "name" : "if",
27136         "type" : "string",
27137         "enum" : ["oic.if.a", "oic.if.baseline"]
27138     }
27139 },
27140 "definitions": {
27141     "OpenLevel" :
27142     {
27143         "properties": {
27144             "id": {
27145                 "description": "Instance ID of this specific resource",
27146                 "maxLength": 64,
27147                 "readOnly": true,
27148                 "type": "string"
27149             },
27150             "if": {
27151                 "description": "The interface set supported by this resource",
27152                 "items": {
27153                     "enum": [
27154                         "oic.if.baseline",
27155                         "oic.if.ll",
27156                         "oic.if.b",
27157                         "oic.if.lb",
27158                         "oic.if.rw",
27159                         "oic.if.r",
27160                         "oic.if.a",
27161                         "oic.if.s"
27162                     ],
27163                     "type": "string"
27164                 },
27165                 "minItems": 1,
27166                 "readOnly": true,
27167                 "type": "array"
27168             },
27169             "increment": {
27170                 "description": "Deprecated, use 'step' instead.",
27171                 "readOnly": true,
27172                 "type": "integer"
27173             },
27174             "n": {
27175                 "description": "Friendly name of the resource",
27176                 "maxLength": 64,
27177                 "readOnly": true,
27178                 "type": "string"
27179             },
27180             "openLevel": {
27181                 "description": "How open or ajar the entity is",
27182                 "type": "integer"
27183             },
27184             "precision": {
27185                 "description": "Accuracy granularity of the exposed value",
27186                 "readOnly": true,
27187                 "type": "number"
27188             },
27189             "range": {
27190                 "description": "The valid range for the value Property",

```

```

27191         "items": {
27192             "anyOf": [
27193                 {
27194                     "type": "number"
27195                 },
27196                 {
27197                     "type": "integer"
27198                 }
27199             ]
27200         },
27201         "maxItems": 2,
27202         "minItems": 2,
27203         "readOnly": true,
27204         "type": "array"
27205     },
27206     "rt": {
27207         "description": "Resource Type",
27208         "items": {
27209             "maxLength": 64,
27210             "type": "string"
27211         },
27212         "minItems": 1,
27213         "readOnly": true,
27214         "type": "array"
27215     },
27216     "step": {
27217         "anyOf": [
27218             {
27219                 "type": "integer"
27220             },
27221             {
27222                 "type": "number"
27223             }
27224         ],
27225         "description": "Step value across the defined range",
27226         "readOnly": true
27227     },
27228     "value": {
27229         "anyOf": [
27230             {
27231                 "type": "array"
27232             },
27233             {
27234                 "type": "string"
27235             },
27236             {
27237                 "type": "boolean"
27238             },
27239             {
27240                 "type": "integer"
27241             },
27242             {
27243                 "type": "number"
27244             },
27245             {
27246                 "type": "object"
27247             }
27248         ],
27249         "description": "The value sensed or actuated by this Resource"
27250     }
27251 },
27252 "required": [
27253     "openLevel"
27254 ],
27255 "type": "object"
27256 }
27257
27258 }
27259
27260

```



27261

**B.57.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
step	multiple types: see schema		Read Only	Step value across the defined range
openLevel	integer	yes		How open or ajar the entity is
increment	integer		Read Only	Deprecated, use 'step' instead.
range	array: see schema		Read Only	The valid range for the value Property
id	string		Read Only	Instance ID of this specific resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource

27262

**B.57.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/OpenLevelResURI		get	post		

27263

**B.58 Operational State**

27264

**B.58.1 Introduction**

27265 This resource describes the operational and job states on a device.  
 27266 The states can be read or set, setting indicates a desired state.  
 27267 A device may reject an attempt to set a state that would result  
 27268 in adverse operational characteristics.  
 27269 The machineStates is an array of the possible operational states.  
 27270 The currentMachineState is the current state of operation of the device.  
 27271 The jobStates is an array of the possible job states.  
 27272 The currentJobState is the currently active jobState.  
 27273 The runningTime is the ISO8601 encoded elapsed time in the current operational state.  
 27274 The remainingTime is the ISO8601 encoded time till completion of the current operational state.  
 27275 The progressPercentage is the percentage completeness of the current jobState.  
 27276 Retrieves the current operational and job states.  
 27277

27278

**B.58.2 Example URI**

27279

/OperationalStateResURI

### B.58.3 Resource Type

The resource type (rt) is defined as: ['oic.r.operational.state'].

### B.58.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Operational State",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    },
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/OperationalStateResURI" : {
      "get": {
        "description": "This resource describes the operational and job states on a device.\nThe
states can be read or set, setting indicates a desired state.\nA device may reject an attempt to
set a state that would result\nin adverse operational characteristics.\nThe machineStates is an
array of the possible operational states.\nThe currentMachineState is the current state of
operation of the device.\nThe jobStates is an array of the possible job states.\nThe
currentJobState is the currently active jobState.\nThe runningTime is the ISO8601 encoded elapsed
time in the current operational state.\nThe remainingTime is the ISO8601 encoded time till
completion of the current operational state.\nThe progressPercentage is the percentage completeness
of the current jobState.\nRetrieves the current operational and job states.\n",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.operational.state"],
              "id": "unique_example_id",
              "machineStates": ["pause", "stopped", "idle", "active"],
              "currentMachineState": "active",
              "jobStates": ["preWash", "wash", "rinse", "spin", "dry", "airDry",
"wrinklePrevent"],
              "currentJobState": "rinse",
              "runningTime": "PT15M20S",
              "remainingTime": "PT10M40S",
              "progressPercentage": 75
            }
          }
        },
        "schema": { "$ref": "#/definitions/Operation" }
      }
    }
  },
  "post": {
    "description": "Sets the desired operational or job state.\n",
    "parameters": [
```

```

27349         {"$ref": "#/parameters/interface"},
27350     {
27351         "name": "body",
27352         "in": "body",
27353         "required": true,
27354         "schema": { "$ref": "#/definitions/OperationUpdate" },
27355         "x-example":
27356             {
27357                 "id": "unique_example_id",
27358                 "currentMachineState": "pause",
27359                 "currentJobState": "wash"
27360             }
27361     },
27362 ],
27363 "responses": {
27364     "200": {
27365         "description": "",
27366         "x-example":
27367             {
27368                 "id": "unique_example_id",
27369                 "currentMachineState": "pause",
27370                 "currentJobState": "wash"
27371             }
27372     },
27373     "schema": { "$ref": "#/definitions/OperationUpdate" }
27374 },
27375 "403": {
27376     "description": "This response is generated by the OIC Server when the client
27377 sends:\n An update with an value for currentMachineState that is not found in machineStates.\n An
27378 update with an value for currentJobState that is not found in jobStates.\nThe server responds with
27379 the current resource representation.\n",
27380     "x-example":
27381         {
27382             "id": "unique_example_id",
27383             "machineStates": ["pause", "stopped", "idle", "active"],
27384             "currentMachineState": "active",
27385             "jobStates": ["preWash", "wash", "rinse", "spin", "dry", "airDry",
27386 "wrinklePrevent"],
27387             "currentJobState": "rinse",
27388             "runningTime": "PT15M20S",
27389             "remainingTime": "PT10M40S",
27390             "progressPercentage": 75
27391         }
27392     },
27393     "schema": { "$ref": "#/definitions/Operation" }
27394 },
27395 }
27396 }
27397 }
27398 },
27399 "parameters": {
27400     "interface": {
27401         "in": "query",
27402         "name": "if",
27403         "type": "string",
27404         "enum": ["oic.if.a", "oic.if.baseline"]
27405     }
27406 },
27407 "definitions": {
27408     "Operation": {
27409         {
27410             "properties": {
27411                 "currentJobState": {
27412                     "description": "Currently active jobState",
27413                     "type": "string"
27414                 },
27415                 "currentMachineState": {
27416                     "description": "Current state of operation of the device.",
27417                     "type": "string"
27418                 },
27419                 "id": {

```

```

27420         "description": "Instance ID of this specific resource",
27421         "maxLength": 64,
27422         "readOnly": true,
27423         "type": "string"
27424     },
27425     "if": {
27426         "description": "The interface set supported by this resource",
27427         "items": {
27428             "enum": [
27429                 "oic.if.baseline",
27430                 "oic.if.ll",
27431                 "oic.if.b",
27432                 "oic.if.lb",
27433                 "oic.if.rw",
27434                 "oic.if.r",
27435                 "oic.if.a",
27436                 "oic.if.s"
27437             ],
27438             "type": "string"
27439         },
27440         "minItems": 1,
27441         "readOnly": true,
27442         "type": "array"
27443     },
27444     "jobStates": {
27445         "description": "array of the possible job states.",
27446         "items": {
27447             "type": "string"
27448         },
27449         "readOnly": true,
27450         "type": "array"
27451     },
27452     "machineStates": {
27453         "description": "array of the possible operational states.",
27454         "items": {
27455             "type": "string"
27456         },
27457         "readOnly": true,
27458         "type": "array"
27459     },
27460     "n": {
27461         "description": "Friendly name of the resource",
27462         "maxLength": 64,
27463         "readOnly": true,
27464         "type": "string"
27465     },
27466     "precision": {
27467         "description": "Accuracy granularity of the exposed value",
27468         "readOnly": true,
27469         "type": "number"
27470     },
27471     "progressPercentage": {
27472         "description": "Percentage completeness of the current jobState",
27473         "maximum": 100,
27474         "minimum": 0,
27475         "readOnly": true,
27476         "type": "integer"
27477     },
27478     "range": {
27479         "description": "The valid range for the value Property",
27480         "items": {
27481             "anyOf": [
27482                 {
27483                     "type": "number"
27484                 },
27485                 {
27486                     "type": "integer"
27487                 }
27488             ]
27489         },
27490         "maxItems": 2,

```

```

27491         "minItems": 2,
27492         "readOnly": true,
27493         "type": "array"
27494     },
27495     "remainingTime": {
27496         "description": "Time till completion of the current operational state",
27497         "readOnly": true,
27498         "type": "string"
27499     },
27500     "rt": {
27501         "description": "Resource Type",
27502         "items": {
27503             "maxLength": 64,
27504             "type": "string"
27505         },
27506         "minItems": 1,
27507         "readOnly": true,
27508         "type": "array"
27509     },
27510     "runningTime": {
27511         "description": "Elapsed time in the current operational state",
27512         "readOnly": true,
27513         "type": "string"
27514     },
27515     "step": {
27516         "anyOf": [
27517             {
27518                 "type": "integer"
27519             },
27520             {
27521                 "type": "number"
27522             }
27523         ],
27524         "description": "Step value across the defined range",
27525         "readOnly": true
27526     },
27527     "value": {
27528         "anyOf": [
27529             {
27530                 "type": "array"
27531             },
27532             {
27533                 "type": "string"
27534             },
27535             {
27536                 "type": "boolean"
27537             },
27538             {
27539                 "type": "integer"
27540             },
27541             {
27542                 "type": "number"
27543             },
27544             {
27545                 "type": "object"
27546             }
27547         ],
27548         "description": "The value sensed or actuated by this Resource"
27549     }
27550 },
27551 "required": [
27552     "machineStates",
27553     "currentMachineState"
27554 ],
27555 "type": "object"
27556 }
27557
27558 ,
27559 "OperationUpdate" :
27560 {
27561     "properties": {

```

```

27562     "currentJobState": {
27563         "description": "Currently active jobState",
27564         "type": "string"
27565     },
27566     "currentMachineState": {
27567         "description": "Current state of operation of the device.",
27568         "type": "string"
27569     },
27570     "id": {
27571         "description": "Instance ID of this specific resource",
27572         "maxLength": 64,
27573         "readOnly": true,
27574         "type": "string"
27575     },
27576     "if": {
27577         "description": "The interface set supported by this resource",
27578         "items": {
27579             "enum": [
27580                 "oic.if.baseline",
27581                 "oic.if.ll",
27582                 "oic.if.b",
27583                 "oic.if.lb",
27584                 "oic.if.rw",
27585                 "oic.if.x",
27586                 "oic.if.a",
27587                 "oic.if.s"
27588             ],
27589             "type": "string"
27590         },
27591         "minItems": 1,
27592         "readOnly": true,
27593         "type": "array"
27594     },
27595     "n": {
27596         "description": "Friendly name of the resource",
27597         "maxLength": 64,
27598         "readOnly": true,
27599         "type": "string"
27600     },
27601     "precision": {
27602         "description": "Accuracy granularity of the exposed value",
27603         "readOnly": true,
27604         "type": "number"
27605     },
27606     "range": {
27607         "description": "The valid range for the value Property",
27608         "items": {
27609             "anyOf": [
27610                 {
27611                     "type": "number"
27612                 },
27613                 {
27614                     "type": "integer"
27615                 }
27616             ]
27617         },
27618         "maxItems": 2,
27619         "minItems": 2,
27620         "readOnly": true,
27621         "type": "array"
27622     },
27623     "rt": {
27624         "description": "Resource Type",
27625         "items": {
27626             "maxLength": 64,
27627             "type": "string"
27628         },
27629         "minItems": 1,
27630         "readOnly": true,
27631         "type": "array"
27632     },

```

```

27633     "step": {
27634         "anyOf": [
27635             {
27636                 "type": "integer"
27637             },
27638             {
27639                 "type": "number"
27640             }
27641         ],
27642         "description": "Step value across the defined range",
27643         "readOnly": true
27644     },
27645     "value": {
27646         "anyOf": [
27647             {
27648                 "type": "array"
27649             },
27650             {
27651                 "type": "string"
27652             },
27653             {
27654                 "type": "boolean"
27655             },
27656             {
27657                 "type": "integer"
27658             },
27659             {
27660                 "type": "number"
27661             },
27662             {
27663                 "type": "object"
27664             }
27665         ],
27666         "description": "The value sensed or actuated by this Resource"
27667     },
27668 },
27669 "type": "object"
27670 }
27671 }
27672 }
27673 }
27674

```

### B.58.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
id	string		Read Only	Instance ID of this specific resource
runningTime	string		Read Only	Elapsed time in the current operational state
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
progressPercentage	integer		Read Only	Percentage completeness of the current jobState
precision	number		Read Only	Accuracy granularity of the exposed value

value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
n	string		Read Only	Friendly name of the resource
currentJobState	string			Currently active jobState
currentMachineState	string	yes		Current state of operation of the device.
jobStates	array: see schema		Read Only	array of the possible job states.
remainingTime	string		Read Only	Time till completion of the current operational state
range	array: see schema		Read Only	The valid range for the value Property
machineStates	array: see schema	yes	Read Only	array of the possible operational states.
id	string		Read Only	Instance ID of this specific resource
currentJobState	string			Currently active jobState
if	array: see schema		Read Only	The interface set supported by this resource
currentMachineState	string			Current state of operation of the device.
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
value	multiple types: see schema			The value sensed or actuated by this Resource
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource



## 27676 B.58.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/OperationalStateResURI		get	post		

## 27677 B.59 Presence Sensor

### 27678 B.59.1 Introduction

27679 This resource describes whether presence has been sensed or not.  
 27680 The value is a boolean.  
 27681 A value of 'true' means that presence has been sensed.  
 27682 A value of 'false' means that presence not been sensed.  
 27683

### 27684 B.59.2 Example URI

27685 /PresenceResURI

### 27686 B.59.3 Resource Type

27687 The resource type (rt) is defined as: ['oic.r.sensor.presence'].

### 27688 B.59.4 Swagger2.0 Definition

```

27689 {
27690   "swagger": "2.0",
27691   "info": {
27692     "title": "Presence Sensor",
27693     "version": "v1.1.0-20160519",
27694     "license": {
27695       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
27696       "x-description": "Redistribution and use in source and binary forms, with or without
27697 modification, are permitted provided that the following conditions are met:\n      1.
27698 Redistributions of source code must retain the above copyright notice, this list of conditions and
27699 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
27700 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
27701 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open
27702 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
27703 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
27704 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
27705 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
27706 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
27707 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
27708 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
27709 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
27710 OF SUCH DAMAGE.\n"
27711     }
27712   },
27713   "schemes": ["http"],
27714   "consumes": ["application/json"],
27715   "produces": ["application/json"],
27716   "paths": {
27717     "/PresenceResURI" : {
27718       "get": {
27719         "description": "This resource describes whether presence has been sensed or not.\nThe value
27720 is a boolean.\nA value of 'true' means that presence has been sensed.\nA value of 'false' means
27721 that presence not been sensed.\n",
27722         "parameters": [
27723           {"$ref": "#/parameters/interface"}
27724         ],
27725         "responses": {
27726           "200": {
27727             "description": "",
27728             "x-example": {
27729               "rt": ["oic.r.sensor.presence"],
27730               "id": "unique_example_id",
27731               "value": true
27732             }
27733           }
27734         }
27735       }
27736     }
27737   }

```

```

27734         '
27735         "schema": { "$ref": "#/definitions/Presence" }
27736     }
27737 }
27738 }
27739 }
27740 },
27741 "parameters": {
27742     "interface" : {
27743         "in" : "query",
27744         "name" : "if",
27745         "type" : "string",
27746         "enum" : ["oic.if.s", "oic.if.baseline"]
27747     }
27748 },
27749 "definitions": {
27750     "Presence" :
27751     {
27752         "properties": {
27753             "id": {
27754                 "description": "Instance ID of this specific resource",
27755                 "maxLength": 64,
27756                 "readOnly": true,
27757                 "type": "string"
27758             },
27759             "if": {
27760                 "description": "The interface set supported by this resource",
27761                 "items": {
27762                     "enum": [
27763                         "oic.if.baseline",
27764                         "oic.if.ll",
27765                         "oic.if.b",
27766                         "oic.if.lb",
27767                         "oic.if.rw",
27768                         "oic.if.r",
27769                         "oic.if.a",
27770                         "oic.if.s"
27771                     ],
27772                     "type": "string"
27773                 },
27774                 "minItems": 1,
27775                 "readOnly": true,
27776                 "type": "array"
27777             },
27778             "n": {
27779                 "description": "Friendly name of the resource",
27780                 "maxLength": 64,
27781                 "readOnly": true,
27782                 "type": "string"
27783             },
27784             "precision": {
27785                 "description": "Accuracy granularity of the exposed value",
27786                 "readOnly": true,
27787                 "type": "number"
27788             },
27789             "range": {
27790                 "description": "The valid range for the value Property",
27791                 "items": {
27792                     "anyOf": [
27793                         {
27794                             "type": "number"
27795                         },
27796                         {
27797                             "type": "integer"
27798                         }
27799                     ]
27800                 },
27801                 "maxItems": 2,
27802                 "minItems": 2,
27803                 "readOnly": true,
27804                 "type": "array"

```

```

27805     },
27806     "rt": {
27807         "description": "Resource Type",
27808         "items": {
27809             "maxLength": 64,
27810             "type": "string"
27811         },
27812         "minItems": 1,
27813         "readOnly": true,
27814         "type": "array"
27815     },
27816     "step": {
27817         "anyOf": [
27818             {
27819                 "type": "integer"
27820             },
27821             {
27822                 "type": "number"
27823             }
27824         ],
27825         "description": "Step value across the defined range",
27826         "readOnly": true
27827     },
27828     "value": {
27829         "description": "true = sensed, false = not sensed.",
27830         "readOnly": true,
27831         "type": "boolean"
27832     }
27833 },
27834 "required": [
27835     "value"
27836 ],
27837 "type": "object"
27838 }
27839 }
27840 }
27841 }
27842

```

#### B.59.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	boolean	yes	Read Only	true = sensed, false = not sensed.
precision	number		Read Only	Accuracy granularity of the exposed value
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type

## 27844 B.59.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/PresenceResURI		get			

## 27845 B.60 Pan Tilt Zoom Movement

### 27846 B.60.1 Introduction

27847 This resource specifies the pan tilt and zoom capabilities of a device.  
 27848 The resource rt is dynamic and reflects whether the values apply to  
 27849 physical movement of the device or digital/virtual enhancements to the image.  
 27850 For physical movement the rt is 'oic.r.movement.ptz'.  
 27851 For digital/virtual image enhancements the rt is 'oic.r.image.ptz'.  
 27852 The Pan and Tilt are specified in degrees.  
 27853 The Zoom Factor is a value in the range 1-100 for linear (optical) zoom.  
 27854 The Zoom Factor is a value in the range [1x, 2x, 4x, 8x, 16x, 32x] for digital zoom.  
 27855 If there is no zoom value to set the Zoom Factor shall be '1x'.  
 27856 The value 0 degrees means neutral, this is the vendor defined setting.  
 27857 Note that this resource also can be used to create an offset for physical movement.  
 27858 When that is the case, the rt value is: oic.r.movement.offset.ptz  
 27859 Note that this resource also can be used to create an offset for image movement.  
 27860 When that is the case, the rt value is: oic.r.image.offset.ptz  
 27861 When the pan\_range value is omitted, then the range is [-180.0,180.0].  
 27862 If pan is not supported then the range shall be [0.0,0.0]  
 27863 When the tilt\_range value is omitted, then the range is [-180.0,180.0].  
 27864 If tilt is not supported then the range shall be [0.0,0.0]  
 27865 Retrieves the current pan, tilt and zoom setting.  
 27866

### 27867 B.60.2 Example URI

27868 /PanTiltZoomResURI

### 27869 B.60.3 Resource Type

27870 The resource type (rt) is defined as: ['oic.r.ptz'].

### 27871 B.60.4 Swagger2.0 Definition

```

27872 {
27873   "swagger": "2.0",
27874   "info": {
27875     "title": "Pan Tilt Zoom Movement",
27876     "version": "v1.1.0-20160519",
27877     "license": {
27878       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
27879       "x-description": "Redistribution and use in source and binary forms, with or without
27880 modification, are permitted provided that the following conditions are met:\n      1.
27881 Redistributions of source code must retain the above copyright notice, this list of conditions and
27882 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
27883 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
27884 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
27885 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
27886 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
27887 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
27888 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
27889 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
27890 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
27891 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
27892 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
27893 OF SUCH DAMAGE.\n"
27894     }
27895   },
27896   "schemes": ["http"],
27897   "consumes": ["application/json"],

```

```

27898     "produces": ["application/json"],
27899     "paths": {
27900         "/PanTiltZoomResURI" : {
27901             "get": {
27902                 "description": "This resource specifies the pan tilt and zoom capabilities of a
27903 device.\n\nThe resource rt is dynamic and reflects whether the values apply to\n physical movement
27904 of the device or digital/virtual enhancements to the image.\n\nFor physical movement the rt is
27905 'oic.r.movement.ptz'.\n\nFor digital/virtual image enhancements the rt is 'oic.r.image.ptz'.\n\nThe Pan
27906 and Tilt are specified in degrees.\n\nThe Zoom Factor is a value in the range 1-100 for linear
27907 (optical) zoom.\n\nThe Zoom Factor is a value in the range [1x, 2x, 4x, 8x, 16x, 32x] for digital
27908 zoom.\n\nIf there is no zoom value to set the Zoom Factor shall be '1x'.\n\nThe value 0 degrees means
27909 neutral, this is the vendor defined setting.\n\nNote that this resource also can be used to create an
27910 offset for physical movement.\n\nWhen that is the case, the rt value is:
27911 oic.r.movement.offset.ptz\n\nNote that this resource also can be used to create an offset for image
27912 movement.\n\nWhen that is the case, the rt value is: oic.r.image.offset.ptz\n\nWhen the pan_range value
27913 is omitted, then the range is [-180.0,180.0].\n\nIf pan is not supported then the range shall be
27914 [0.0,0.0]\n\nWhen the tilt_range value is omitted, then the range is [-180.0,180.0].\n\nIf tilt is not
27915 supported then the range shall be [0.0,0.0]\n\nRetrieves the current pan, tilt and zoom setting.\n",
27916                 "parameters": [
27917                     { "$ref": "#/parameters/interface" }
27918                 ],
27919                 "responses": {
27920                     "200": {
27921                         "description": "",
27922                         "x-example":
27923                             {
27924                                 "rt": ["oic.r.ptz"],
27925                                 "id": "unique_example_id",
27926                                 "pan": 0.0,
27927                                 "tilt": 0.0,
27928                                 "zoomFactor": "2x"
27929                             }
27930                     },
27931                     "schema": { "$ref": "#/definitions/PanTiltZoom" }
27932                 }
27933             },
27934         },
27935         "post": {
27936             "description": "Sets the current pan, tilt and zoom value\n",
27937             "parameters": [
27938                 { "$ref": "#/parameters/interface" },
27939                 {
27940                     "name": "body",
27941                     "in": "body",
27942                     "required": true,
27943                     "schema": { "$ref": "#/definitions/PanTiltZoom" },
27944                     "x-example":
27945                         {
27946                             "id": "unique_example_id",
27947                             "pan": 10.0,
27948                             "tilt": -10.0,
27949                             "zoomFactor": "4x"
27950                         }
27951                 }
27952             ],
27953             "responses": {
27954                 "200": {
27955                     "description": "",
27956                     "x-example":
27957                         {
27958                             "id": "unique_example_id",
27959                             "pan": 10.0,
27960                             "tilt": -10.0,
27961                             "zoomFactor": "4x"
27962                         }
27963                 },
27964                 "schema": { "$ref": "#/definitions/PanTiltZoom" }
27965             }
27966         }
27967     }
27968 }

```

```

27969 },
27970 "parameters": {
27971   "interface" : {
27972     "in" : "query",
27973     "name" : "if",
27974     "type" : "string",
27975     "enum" : ["oic.if.a", "oic.if.baseline"]
27976   }
27977 },
27978 "definitions": {
27979   "PanTiltZoom" :
27980   {
27981     "properties": {
27982       "id": {
27983         "description": "Instance ID of this specific resource",
27984         "maxLength": 64,
27985         "readOnly": true,
27986         "type": "string"
27987       },
27988       "if": {
27989         "description": "The interface set supported by this resource",
27990         "items": {
27991           "enum": [
27992             "oic.if.baseline",
27993             "oic.if.ll",
27994             "oic.if.b",
27995             "oic.if.lb",
27996             "oic.if.rw",
27997             "oic.if.r",
27998             "oic.if.a",
27999             "oic.if.s"
28000           ],
28001           "type": "string"
28002         },
28003         "minItems": 1,
28004         "readOnly": true,
28005         "type": "array"
28006       },
28007       "n": {
28008         "description": "Friendly name of the resource",
28009         "maxLength": 64,
28010         "readOnly": true,
28011         "type": "string"
28012       },
28013       "pan": {
28014         "description": "horizontal pan in degrees",
28015         "type": "number"
28016       },
28017       "pan_range": {
28018         "description": "Min and Max values for the pan setting",
28019         "items": {
28020           "type": "number"
28021         },
28022         "maxItems": 2,
28023         "minItems": 2,
28024         "readOnly": true,
28025         "type": "array"
28026       },
28027       "precision": {
28028         "description": "Accuracy granularity of the exposed value",
28029         "readOnly": true,
28030         "type": "number"
28031       },
28032       "range": {
28033         "description": "The valid range for the value Property",
28034         "items": {
28035           "anyOf": [
28036             {
28037               "type": "number"
28038             },
28039             {

```

```

28040         "type": "integer"
28041     }
28042 ]
28043 },
28044 "maxItems": 2,
28045 "minItems": 2,
28046 "readOnly": true,
28047 "type": "array"
28048 },
28049 "rt": {
28050     "description": "Resource Type",
28051     "items": {
28052         "maxLength": 64,
28053         "type": "string"
28054     },
28055     "minItems": 1,
28056     "readOnly": true,
28057     "type": "array"
28058 },
28059 "step": {
28060     "anyOf": [
28061         {
28062             "type": "integer"
28063         },
28064         {
28065             "type": "number"
28066         }
28067     ],
28068     "description": "Step value across the defined range",
28069     "readOnly": true
28070 },
28071 "tilt": {
28072     "description": "vertical tilt in degrees",
28073     "type": "number"
28074 },
28075 "tilt_range": {
28076     "description": "Min and Max values for the tilt setting",
28077     "items": {
28078         "type": "number"
28079     },
28080     "maxItems": 2,
28081     "minItems": 2,
28082     "readOnly": true,
28083     "type": "array"
28084 },
28085 "value": {
28086     "anyOf": [
28087         {
28088             "type": "array"
28089         },
28090         {
28091             "type": "string"
28092         },
28093         {
28094             "type": "boolean"
28095         },
28096         {
28097             "type": "integer"
28098         },
28099         {
28100             "type": "number"
28101         },
28102         {
28103             "type": "object"
28104         }
28105     ],
28106     "description": "The value sensed or actuated by this Resource"
28107 },
28108 "zoomFactor": {
28109     "description": "The Zoomfactor value",
28110     "type": "string"

```

```

28111     },
28112     "zoomFactorRange": {
28113       "description": "allowed Zoom Factor values. Linear equates to a 1-100 min/max.",
28114       "enum": [
28115         "linear",
28116         "1x",
28117         "2x",
28118         "4x",
28119         "8x",
28120         "16x",
28121         "32x"
28122       ],
28123       "readOnly": true,
28124       "type": "string"
28125     }
28126   },
28127   "required": [
28128     "pan",
28129     "tilt",
28130     "zoomFactor"
28131   ],
28132   "type": "object"
28133 }
28134
28135 }
28136 }
28137

```

#### 28138 B.60.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
zoomFactorRange	string		Read Only	allowed Zoom Factor values. Linear equates to a 1-100 min/max.
pan_range	array: see schema		Read Only	Min and Max values for the pan setting
tilt	number	yes		vertical tilt in degrees
tilt_range	array: see schema		Read Only	Min and Max values for the tilt setting
zoomFactor	string	yes		The Zoomfactor value
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
if	array: see schema		Read Only	The interface set supported by this resource
pan	number	yes		horizontal pan in degrees
id	string		Read Only	Instance ID of this specific resource



value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property

## 28139 B.60.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/PanTiltZoomResURI		get	post		

## 28140 B.61 Ramp Time

### 28141 B.61.1 Introduction

28142 This resource that describes the Ramp Time of a dimming function.  
 28143 This specifies the actual speed of changing between 2 dimming values.  
 28144 Time is specified in milliseconds [ms].  
 28145 When range (from oic.r.baseresource) is omitted the maximum value is 100 ms.  
 28146 The RampTime of 0ms indicates the minimal delay possible by the implementation.  
 28147 Retrieves the current RampTime.  
 28148

### 28149 B.61.2 Example URI

28150 /RampTimeResURI

### 28151 B.61.3 Resource Type

28152 The resource type (rt) is defined as: ['oic.r.light.ramptime'].

### 28153 B.61.4 Swagger2.0 Definition

```

28154 {
28155   "swagger": "2.0",
28156   "info": {
28157     "title": "Ramp Time",
28158     "version": "v1.1.0-20160519",
28159     "license": {
28160       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
28161       "x-description": "Redistribution and use in source and binary forms, with or without
28162 modification, are permitted provided that the following conditions are met:\n      1.
28163 Redistributions of source code must retain the above copyright notice, this list of conditions and
28164 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
28165 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
28166 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
28167 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
28168 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
28169 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
28170 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
28171 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
28172 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
28173 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
28174 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
28175 OF SUCH DAMAGE.\n"
28176     }
28177   },
28178   "schemes": ["http"],
28179   "consumes": ["application/json"],
28180   "produces": ["application/json"],
28181   "paths": {
28182     "/RampTimeResURI" : {
28183       "get": {

```

```

28184         "description": "This resource that describes the Ramp Time of a dimming function.\nThis
28185 specifies the actual speed of changing between 2 dimming values.\nTime is specified in milliseconds
28186 [ms].\nWhen range (from oic.r.baseresource) is omitted the maximum value is 100 ms.\nThe RampTime
28187 of 0ms indicates the minimal delay possible by the implementation.\nRetrieves the current
28188 RampTime.\n",
28189         "parameters": [
28190             { "$ref": "#/parameters/interface" }
28191         ],
28192         "responses": {
28193             "200": {
28194                 "description": "",
28195                 "x-example":
28196                     {
28197                         "rt": ["oic.r.light.ramptime"],
28198                         "id": "unique_example_id",
28199                         "rampTime": 0,
28200                         "range": [0,100]
28201                     }
28202             },
28203             "schema": { "$ref": "#/definitions/RampTime" }
28204         }
28205     },
28206     },
28207     "post": {
28208         "description": "Sets the current RampTime.\n",
28209         "parameters": [
28210             { "$ref": "#/parameters/interface" },
28211             {
28212                 "name": "body",
28213                 "in": "body",
28214                 "required": true,
28215                 "schema": { "$ref": "#/definitions/RampTime" },
28216                 "x-example":
28217                     {
28218                         "id": "unique_example_id",
28219                         "rampTime": 50
28220                     }
28221             }
28222         ],
28223         "responses": {
28224             "200": {
28225                 "description": "",
28226                 "x-example":
28227                     {
28228                         "id": "unique_example_id",
28229                         "rampTime": 50
28230                     }
28231             },
28232             "schema": { "$ref": "#/definitions/RampTime" }
28233         },
28234         "403": {
28235             "description": "This response is generated by the OIC Server when the client
28236 sends:\n An update with an out of range property value for rampTime.\nThe server responds with the
28237 current resource representation.\n",
28238             "x-example":
28239                 {
28240                     "id": "unique_example_id",
28241                     "rampTime": 40
28242                 }
28243             ,
28244             "schema": { "$ref": "#/definitions/RampTime" }
28245         }
28246     }
28247 }
28248 }
28249 },
28250 "parameters": {
28251     "interface": {
28252         "in": "query",
28253         "name": "if",
28254         "type": "string",

```

```

28255     "enum" : ["oic.if.a", "oic.if.baseline"]
28256   }
28257 },
28258 "definitions": {
28259   "RampTime" :
28260   {
28261     "properties": {
28262       "id": {
28263         "description": "Instance ID of this specific resource",
28264         "maxLength": 64,
28265         "readOnly": true,
28266         "type": "string"
28267       },
28268       "if": {
28269         "description": "The interface set supported by this resource",
28270         "items": {
28271           "enum": [
28272             "oic.if.baseline",
28273             "oic.if.ll",
28274             "oic.if.b",
28275             "oic.if.lb",
28276             "oic.if.rw",
28277             "oic.if.r",
28278             "oic.if.a",
28279             "oic.if.s"
28280           ],
28281           "type": "string"
28282         },
28283         "minItems": 1,
28284         "readOnly": true,
28285         "type": "array"
28286       },
28287       "n": {
28288         "description": "Friendly name of the resource",
28289         "maxLength": 64,
28290         "readOnly": true,
28291         "type": "string"
28292       },
28293       "precision": {
28294         "description": "Accuracy granularity of the exposed value",
28295         "readOnly": true,
28296         "type": "number"
28297       },
28298       "rampTime": {
28299         "description": "Actual speed of changing between 2 dimming values",
28300         "type": "integer"
28301       },
28302       "range": {
28303         "description": "The valid range for the value Property",
28304         "items": {
28305           "anyOf": [
28306             {
28307               "type": "number"
28308             },
28309             {
28310               "type": "integer"
28311             }
28312           ]
28313         },
28314         "maxItems": 2,
28315         "minItems": 2,
28316         "readOnly": true,
28317         "type": "array"
28318       },
28319       "rt": {
28320         "description": "Resource Type",
28321         "items": {
28322           "maxLength": 64,
28323           "type": "string"
28324         },
28325         "minItems": 1,

```

```

28326         "readOnly": true,
28327         "type": "array"
28328     },
28329     "step": {
28330         "anyOf": [
28331             {
28332                 "type": "integer"
28333             },
28334             {
28335                 "type": "number"
28336             }
28337         ],
28338         "description": "Step value across the defined range",
28339         "readOnly": true
28340     },
28341     "value": {
28342         "anyOf": [
28343             {
28344                 "type": "array"
28345             },
28346             {
28347                 "type": "string"
28348             },
28349             {
28350                 "type": "boolean"
28351             },
28352             {
28353                 "type": "integer"
28354             },
28355             {
28356                 "type": "number"
28357             },
28358             {
28359                 "type": "object"
28360             }
28361         ],
28362         "description": "The value sensed or actuated by this Resource"
28363     }
28364 },
28365 "required": [
28366     "rampTime"
28367 ],
28368 "type": "object"
28369 }
28370
28371 }
28372 }
28373

```

#### B.61.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
rampTime	integer	yes		Actual speed of changing between 2 dimming values
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource

step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type

## 28375 B.61.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/RampTimeResURI		get	post		

## 28376 B.62 Refrigeration

### 28377 B.62.1 Introduction

28378 This resource describes a refrigeration function.  
 28379 The filter state is a read-only value providing the percentage life time remaining for the water filter.  
 28380 RapidFreeze is a boolean that controls the rapid freeze capability if present.  
 28381 RapidCool is a boolean that controls the rapid cool capability if present.  
 28382 Defrost is a boolean that controls the defrost cycle if present.  
 28383 At least one of the listed Properties shall be present in a Resource Instance.  
 28384 Retrieves the current Refrigeration function status; all Properties supported by the Device are  
 28385 returned.  
 28386

### 28387 B.62.2 Example URI

28388 /RefrigerationResURI

### 28389 B.62.3 Resource Type

28390 The resource type (rt) is defined as: ['oic.r.refrigeration'].

### 28391 B.62.4 Swagger2.0 Definition

```

28392 {
28393   "swagger": "2.0",
28394   "info": {
28395     "title": "Refrigeration",
28396     "version": "v1.1.0-20160519",
28397     "license": {
28398       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
28399       "x-description": "Redistribution and use in source and binary forms, with or without
28400 modification, are permitted provided that the following conditions are met:\n      1.
28401 Redistributions of source code must retain the above copyright notice, this list of conditions and
28402 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
28403 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
28404 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open
28405 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
28406 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
28407 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
28408 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
28409 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
28410 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
28411 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
28412 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
  
```

```

28413 OF SUCH DAMAGE.\n"
28414 }
28415 },
28416 "schemes": ["http"],
28417 "consumes": ["application/json"],
28418 "produces": ["application/json"],
28419 "paths": {
28420   "/RefrigerationResURI" : {
28421     "get": {
28422       "description": "This resource describes a refrigeration function.\nThe filter state is a
28423 read-only value providing the percentage life time remaining for the water filter.\nRapidFreeze is
28424 a boolean that controls the rapid freeze capability if present.\nRapidCool is a boolean that
28425 controls the rapid cool capability if present.\nDefrost is a boolean that controls the defrost
28426 cycle if present.\nAt least one of the listed Properties shall be present in a Resource
28427 Instance.\nRetrieves the current Refrigeration function status; all Properties supported by the
28428 Device are returned.\n",
28429       "parameters": [
28430         { "$ref": "#/parameters/interface" }
28431       ],
28432       "responses": {
28433         "200": {
28434           "description": "",
28435           "x-example":
28436             {
28437               "rt": ["oic.r.refrigeration"],
28438               "id": "unique_example_id",
28439               "filter": 75,
28440               "rapidFreeze": false,
28441               "rapidCool": false,
28442               "defrost": true
28443             },
28444           "schema": { "$ref": "#/definitions/Refrigeration" }
28445         }
28446       }
28447     },
28448   },
28449   "post": {
28450     "description": "Activates the desired Refrigeration functions.\nSuported values are
28451 rapidFreeze, rapidCool and defrost.\nAt least on of the supported values shall be provided.\n",
28452     "parameters": [
28453       { "$ref": "#/parameters/interface" },
28454       {
28455         "name": "body",
28456         "in": "body",
28457         "required": true,
28458         "schema": { "$ref": "#/definitions/RefrigerationUpdate" },
28459         "x-example":
28460           {
28461             "id": "unique_example_id",
28462             "rapidFreeze": true
28463           }
28464       }
28465     ],
28466     "responses": {
28467       "200": {
28468         "description": "Indicates that the Refrigeration function was changed.\nThe new
28469 status can be provided in the response.\n",
28470         "x-example":
28471           {
28472             "id": "unique_example_id",
28473             "rapidFreeze": true
28474           },
28475         "schema": { "$ref": "#/definitions/RefrigerationUpdate" }
28476       }
28477     }
28478   }
28479 }
28480 },
28481 "parameters": {
28482   "interface" : {

```

```

28484         "in" : "query",
28485         "name" : "if",
28486         "type" : "string",
28487         "enum" : ["oic.if.a", "oic.if.baseline"]
28488     }
28489 },
28490 "definitions": {
28491     "Refrigeration" :
28492     {
28493         "anyOf": [
28494             {
28495                 "required": [
28496                     "filter"
28497                 ]
28498             },
28499             {
28500                 "required": [
28501                     "rapidFreeze"
28502                 ]
28503             },
28504             {
28505                 "required": [
28506                     "rapidCool"
28507                 ]
28508             },
28509             {
28510                 "required": [
28511                     "defrost"
28512                 ]
28513             }
28514         ],
28515         "properties": {
28516             "defrost": {
28517                 "description": "Indicates whether a defrost cycle is currently active",
28518                 "type": "boolean"
28519             },
28520             "filter": {
28521                 "description": "Percentage life time remaining for the water filter",
28522                 "maximum": 100,
28523                 "minimum": 0,
28524                 "readOnly": true,
28525                 "type": "integer"
28526             },
28527             "id": {
28528                 "description": "Instance ID of this specific resource",
28529                 "maxLength": 64,
28530                 "readOnly": true,
28531                 "type": "string"
28532             },
28533             "if": {
28534                 "description": "The interface set supported by this resource",
28535                 "items": {
28536                     "enum": [
28537                         "oic.if.baseline",
28538                         "oic.if.ll",
28539                         "oic.if.b",
28540                         "oic.if.lb",
28541                         "oic.if.rw",
28542                         "oic.if.r",
28543                         "oic.if.a",
28544                         "oic.if.s"
28545                     ],
28546                     "type": "string"
28547                 },
28548                 "minItems": 1,
28549                 "readOnly": true,
28550                 "type": "array"
28551             },
28552             "n": {
28553                 "description": "Friendly name of the resource",
28554                 "maxLength": 64,

```

```

28555         "readOnly": true,
28556         "type": "string"
28557     },
28558     "precision": {
28559         "description": "Accuracy granularity of the exposed value",
28560         "readOnly": true,
28561         "type": "number"
28562     },
28563     "range": {
28564         "description": "The valid range for the value Property",
28565         "items": {
28566             "anyOf": [
28567                 {
28568                     "type": "number"
28569                 },
28570                 {
28571                     "type": "integer"
28572                 }
28573             ]
28574         },
28575         "maxItems": 2,
28576         "minItems": 2,
28577         "readOnly": true,
28578         "type": "array"
28579     },
28580     "rapidCool": {
28581         "description": "Indicates whether the unit has a rapid cool capability active",
28582         "type": "boolean"
28583     },
28584     "rapidFreeze": {
28585         "description": "Indicates whether the unit has a rapid freeze capability active.",
28586         "type": "boolean"
28587     },
28588     "rt": {
28589         "description": "Resource Type",
28590         "items": {
28591             "maxLength": 64,
28592             "type": "string"
28593         },
28594         "minItems": 1,
28595         "readOnly": true,
28596         "type": "array"
28597     },
28598     "step": {
28599         "anyOf": [
28600             {
28601                 "type": "integer"
28602             },
28603             {
28604                 "type": "number"
28605             }
28606         ],
28607         "description": "Step value across the defined range",
28608         "readOnly": true
28609     },
28610     "value": {
28611         "anyOf": [
28612             {
28613                 "type": "array"
28614             },
28615             {
28616                 "type": "string"
28617             },
28618             {
28619                 "type": "boolean"
28620             },
28621             {
28622                 "type": "integer"
28623             },
28624             {
28625                 "type": "number"

```



```

28626         },
28627         {
28628             "type": "object"
28629         }
28630     ],
28631     "description": "The value sensed or actuated by this Resource"
28632 },
28633 },
28634 "type": "object"
28635 }
28636
28637 ,
28638 "RefrigerationUpdate" :
28639 {
28640     "anyOf": [
28641     {
28642         "required": [
28643             "rapidFreeze"
28644         ]
28645     },
28646     {
28647         "required": [
28648             "rapidCool"
28649         ]
28650     },
28651     {
28652         "required": [
28653             "defrost"
28654         ]
28655     }
28656 ],
28657 "properties": {
28658     "defrost": {
28659         "description": "Indicates whether a defrost cycle is currently active",
28660         "type": "boolean"
28661     },
28662     "id": {
28663         "description": "Instance ID of this specific resource",
28664         "maxLength": 64,
28665         "readOnly": true,
28666         "type": "string"
28667     },
28668     "if": {
28669         "description": "The interface set supported by this resource",
28670         "items": {
28671             "enum": [
28672                 "oic.if.baseline",
28673                 "oic.if.ll",
28674                 "oic.if.b",
28675                 "oic.if.lb",
28676                 "oic.if.rw",
28677                 "oic.if.r",
28678                 "oic.if.a",
28679                 "oic.if.s"
28680             ],
28681             "type": "string"
28682         },
28683         "minItems": 1,
28684         "readOnly": true,
28685         "type": "array"
28686     },
28687     "n": {
28688         "description": "Friendly name of the resource",
28689         "maxLength": 64,
28690         "readOnly": true,
28691         "type": "string"
28692     },
28693     "precision": {
28694         "description": "Accuracy granularity of the exposed value",
28695         "readOnly": true,
28696         "type": "number"

```

```

28697 },
28698 "range": {
28699   "description": "The valid range for the value Property",
28700   "items": {
28701     "anyOf": [
28702       {
28703         "type": "number"
28704       },
28705       {
28706         "type": "integer"
28707       }
28708     ]
28709   },
28710   "maxItems": 2,
28711   "minItems": 2,
28712   "readOnly": true,
28713   "type": "array"
28714 },
28715 "rapidCool": {
28716   "description": "Indicates whether the unit has a rapid cool capability active",
28717   "type": "boolean"
28718 },
28719 "rapidFreeze": {
28720   "description": "Indicates whether the unit has a rapid freeze capability active.",
28721   "type": "boolean"
28722 },
28723 "rt": {
28724   "description": "Resource Type",
28725   "items": {
28726     "maxLength": 64,
28727     "type": "string"
28728   },
28729   "minItems": 1,
28730   "readOnly": true,
28731   "type": "array"
28732 },
28733 "step": {
28734   "anyOf": [
28735     {
28736       "type": "integer"
28737     },
28738     {
28739       "type": "number"
28740     }
28741   ],
28742   "description": "Step value across the defined range",
28743   "readOnly": true
28744 },
28745 "value": {
28746   "anyOf": [
28747     {
28748       "type": "array"
28749     },
28750     {
28751       "type": "string"
28752     },
28753     {
28754       "type": "boolean"
28755     },
28756     {
28757       "type": "integer"
28758     },
28759     {
28760       "type": "number"
28761     },
28762     {
28763       "type": "object"
28764     }
28765   ],
28766   "description": "The value sensed or actuated by this Resource"
28767 }

```

```

28768     },
28769     "type": "object"
28770 }
28771 }
28772 }
28773 }
28774

```

## 28775 B.62.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rapidFreeze	boolean			Indicates whether the unit has a rapid freeze capability active.
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
filter	integer		Read Only	Percentage life time remaining for the water filter
value	multiple types: see schema			The value sensed or actuated by this Resource
defrost	boolean	yes		Indicates whether a defrost cycle is currently active
rt	array: see schema		Read Only	Resource Type
n	string		Read Only	Friendly name of the resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
rapidCool	boolean			Indicates whether the unit has a rapid cool capability active
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
rapidFreeze	boolean			Indicates whether the unit has a rapid freeze capability active.

step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
defrost	boolean	yes		Indicates whether a defrost cycle is currently active
id	string		Read Only	Instance ID of this specific resource
rapidCool	boolean			Indicates whether the unit has a rapid cool capability active
precision	number		Read Only	Accuracy granularity of the exposed value

## 28776 B.62.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/RefrigerationResURI		get	post		

## 28777 B.63 Selectable Levels

### 28778 B.63.1 Introduction

28779 This Resource provides a set of device defined 'levels' that can be selected for an operation.  
 28780 For example where a humidifier has a discrete set that model different humidity levels that can be  
 28781 set.  
 28782 availablelevels is an array of the levels that can be selected, these can be a number or an integer.  
 28783 targetlevel is the level that has currently been selected and is written to in order to select a new  
 28784 level.  
 28785 When retrieved the targetlevel provides the actual value that has been selected.  
 28786 Retrieves the current selectable levels.  
 28787

### 28788 B.63.2 Example URI

28789 /SelectableLevelsResURI

### 28790 B.63.3 Resource Type

28791 The resource type (rt) is defined as: ['oic.r.selectablelevels'].

### 28792 B.63.4 Swagger2.0 Definition

28793 {  
 28794 "swagger": "2.0",

```

28795     "info": {
28796         "title": "Selectable Levels",
28797         "version": "v1.1.0-20160519",
28798         "license": {
28799             "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
28800             "x-description": "Redistribution and use in source and binary forms, with or without
28801 modification, are permitted provided that the following conditions are met:\n          1.
28802 Redistributions of source code must retain the above copyright notice, this list of conditions and
28803 the following disclaimer.\n          2. Redistributions in binary form must reproduce the above
28804 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
28805 other materials provided with the distribution.\n\n          THIS SOFTWARE IS PROVIDED BY THE Open
28806 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
28807 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
28808 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n          IN NO EVENT SHALL THE Open Connectivity
28809 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
28810 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
28811 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
28812 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
28813 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
28814 OF SUCH DAMAGE.\n"
28815         }
28816     },
28817     "schemes": ["http"],
28818     "consumes": ["application/json"],
28819     "produces": ["application/json"],
28820     "paths": {
28821         "/SelectableLevelsResURI" : {
28822             "get": {
28823                 "description": "This Resource provides a set of device defined 'levels' that can be
28824 selected for an operation.\nFor example where a humidifier has a discrete set that model different
28825 humidity levels that can be set.\navailablelevels is an array of the levels that can be selected,
28826 these can be a number or an integer.\ntargetlevel is the level that has currently been selected and
28827 is written to in order to select a new level.\nWhen retrieved the targetlevel provides the actual
28828 value that has been selected.\nRetrieves the current selectable levels.\n",
28829                 "parameters": [
28830                     { "$ref": "#/parameters/interface" }
28831                 ],
28832                 "responses": {
28833                     "200": {
28834                         "description": "",
28835                         "x-example":
28836                         {
28837                             "rt": ["oic.r.selectablelevels"],
28838                             "id": "unique_example_id",
28839                             "availablelevels": [0,2,4,6,8],
28840                             "targetlevel": 2
28841                         }
28842                     },
28843                     "schema": { "$ref": "#/definitions/SelectableLevels" }
28844                 }
28845             }
28846         },
28847         "post": {
28848             "description": "Sets the current level from the set that is selectable",
28849             "parameters": [
28850                 { "$ref": "#/parameters/interface" },
28851                 {
28852                     "name": "body",
28853                     "in": "body",
28854                     "required": true,
28855                     "schema": { "$ref": "#/definitions/UpdateSchema" },
28856                     "x-example":
28857                     {
28858                         "targetlevel": 4
28859                     }
28860                 }
28861             ],
28862             "responses": {
28863                 "200": {
28864                     "description": "",
28865                     "x-example":

```

```

28866         {
28867             "targetlevel": 4
28868         }
28869     },
28870     "schema": { "$ref": "#/definitions/UpdateSchema" }
28871 },
28872 "403": {
28873     "description": "Generated by a Server when an attempt is made to update to a
28874 targetlevel that is not in the set of availablelevels",
28875     "x-example":
28876     {
28877         "id": "unique_example_id",
28878         "availablelevels": [0,2,4,6,8],
28879         "targetlevel": 2
28880     },
28881     "schema": { "$ref": "#/definitions/SelectableLevels" }
28882 },
28883 },
28884 },
28885 },
28886 },
28887 },
28888 "parameters": {
28889     "interface": {
28890         "in": "query",
28891         "name": "if",
28892         "type": "string",
28893         "enum": ["oic.if.a", "oic.if.baseline"]
28894     }
28895 },
28896 "definitions": {
28897     "SelectableLevels": {
28898         {
28899             "properties": {
28900                 "availablelevels": {
28901                     "description": "Set of levels from which one can be selected",
28902                     "items": {
28903                         "anyOf": [
28904                             {
28905                                 "type": "integer"
28906                             },
28907                             {
28908                                 "type": "number"
28909                             }
28910                         ]
28911                     },
28912                     "readOnly": true,
28913                     "type": "array"
28914                 },
28915                 "id": {
28916                     "description": "Instance ID of this specific resource",
28917                     "maxLength": 64,
28918                     "readOnly": true,
28919                     "type": "string"
28920                 },
28921                 "if": {
28922                     "description": "The interface set supported by this resource",
28923                     "items": {
28924                         "enum": [
28925                             "oic.if.baseline",
28926                             "oic.if.ll",
28927                             "oic.if.b",
28928                             "oic.if.lb",
28929                             "oic.if.rw",
28930                             "oic.if.r",
28931                             "oic.if.a",
28932                             "oic.if.s"
28933                         ],
28934                         "type": "string"
28935                     },
28936                     "minItems": 1,

```

```

28937         "readOnly": true,
28938         "type": "array"
28939     },
28940     "n": {
28941         "description": "Friendly name of the resource",
28942         "maxLength": 64,
28943         "readOnly": true,
28944         "type": "string"
28945     },
28946     "precision": {
28947         "description": "Accuracy granularity of the exposed value",
28948         "readOnly": true,
28949         "type": "number"
28950     },
28951     "range": {
28952         "description": "The valid range for the value Property",
28953         "items": {
28954             "anyOf": [
28955                 {
28956                     "type": "number"
28957                 },
28958                 {
28959                     "type": "integer"
28960                 }
28961             ]
28962         },
28963         "maxItems": 2,
28964         "minItems": 2,
28965         "readOnly": true,
28966         "type": "array"
28967     },
28968     "rt": {
28969         "description": "Resource Type",
28970         "items": {
28971             "maxLength": 64,
28972             "type": "string"
28973         },
28974         "minItems": 1,
28975         "readOnly": true,
28976         "type": "array"
28977     },
28978     "step": {
28979         "anyOf": [
28980             {
28981                 "type": "integer"
28982             },
28983             {
28984                 "type": "number"
28985             }
28986         ],
28987         "description": "Step value across the defined range",
28988         "readOnly": true
28989     },
28990     "targetlevel": {
28991         "anyOf": [
28992             {
28993                 "type": "integer"
28994             },
28995             {
28996                 "type": "number"
28997             }
28998         ],
28999         "description": "The target level from the available selectable set"
29000     },
29001     "value": {
29002         "anyOf": [
29003             {
29004                 "type": "array"
29005             },
29006             {
29007                 "type": "string"

```

```

29008         },
29009         {
29010             "type": "boolean"
29011         },
29012         {
29013             "type": "integer"
29014         },
29015         {
29016             "type": "number"
29017         },
29018         {
29019             "type": "object"
29020         }
29021     ],
29022     "description": "The value sensed or actuated by this Resource"
29023 },
29024 },
29025 "required": [
29026     "availablelevels",
29027     "targetlevel"
29028 ],
29029 "type": "object"
29030 }
29031
29032 ,
29033 "UpdateSchema" :
29034 {
29035     "properties": {
29036         "id": {
29037             "description": "Instance ID of this specific resource",
29038             "maxLength": 64,
29039             "readOnly": true,
29040             "type": "string"
29041         },
29042         "if": {
29043             "description": "The interface set supported by this resource",
29044             "items": {
29045                 "enum": [
29046                     "oic.if.baseline",
29047                     "oic.if.ll",
29048                     "oic.if.b",
29049                     "oic.if.lb",
29050                     "oic.if.rw",
29051                     "oic.if.r",
29052                     "oic.if.a",
29053                     "oic.if.s"
29054                 ],
29055                 "type": "string"
29056             },
29057             "minItems": 1,
29058             "readOnly": true,
29059             "type": "array"
29060         },
29061         "n": {
29062             "description": "Friendly name of the resource",
29063             "maxLength": 64,
29064             "readOnly": true,
29065             "type": "string"
29066         },
29067         "precision": {
29068             "description": "Accuracy granularity of the exposed value",
29069             "readOnly": true,
29070             "type": "number"
29071         },
29072         "range": {
29073             "description": "The valid range for the value Property",
29074             "items": {
29075                 "anyOf": [
29076                     {
29077                         "type": "number"
29078                     }

```



```

29079         {
29080             "type": "integer"
29081         }
29082     ],
29083 },
29084 "maxItems": 2,
29085 "minItems": 2,
29086 "readOnly": true,
29087 "type": "array"
29088 },
29089 "rt": {
29090     "description": "Resource Type",
29091     "items": {
29092         "maxLength": 64,
29093         "type": "string"
29094     },
29095     "minItems": 1,
29096     "readOnly": true,
29097     "type": "array"
29098 },
29099 "step": {
29100     "anyOf": [
29101         {
29102             "type": "integer"
29103         },
29104         {
29105             "type": "number"
29106         }
29107     ],
29108     "description": "Step value across the defined range",
29109     "readOnly": true
29110 },
29111 "targetlevel": {
29112     "description": "The target level from the available selectable set",
29113     "type": [
29114         "integer",
29115         "number"
29116     ]
29117 },
29118 "value": {
29119     "anyOf": [
29120         {
29121             "type": "array"
29122         },
29123         {
29124             "type": "string"
29125         },
29126         {
29127             "type": "boolean"
29128         },
29129         {
29130             "type": "integer"
29131         },
29132         {
29133             "type": "number"
29134         },
29135         {
29136             "type": "object"
29137         }
29138     ],
29139     "description": "The value sensed or actuated by this Resource"
29140 },
29141 },
29142 "required": [
29143     "targetlevel"
29144 ],
29145 "type": "object"
29146 }
29147
29148 }
```

29149 }

29150

29151

**B.63.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
targetlevel	['integer', 'number']	yes		The target level from the available selectable set
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource
targetlevel	multiple types: see schema	yes		The target level from the available selectable set
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
availablelevels	array: see schema	yes	Read Only	Set of levels from which one can be selected
range	array: see schema		Read Only	The valid range for the value Property

value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource

## B.63.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/SelectableLevelsResURI		get	post		

## B.64 Signal Strength

### B.64.1 Introduction

This resource describes the strength of a signal by means of lqi and rssi. The lqi is a floating point number that represents Link Quality Indicator. The rssi is a floating point number that represents the received signal strength indicator.

### B.64.2 Example URI

/SignalStrengthResURI

### B.64.3 Resource Type

The resource type (rt) is defined as: ['oic.r.signalstrength'].

### B.64.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Signal Strength",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/SignalStrengthResURI": {
      "get": {
        "description": "This resource describes the strength of a signal by means of lqi and
rssi.\nThe lqi is a floating point number that represents Link Quality Indicator.\nThe rssi is a
floating point number that represents the received signal strength indicator.\n",
        "parameters": [
          {
            "$ref": "#/parameters/interface"
          }
        ],
        "responses": {
          "200": {
```

```

29202         "description" : "",
29203         "x-example":
29204             {
29205                 "rt": ["oic.r.signalstrength"],
29206                 "id": "unique_example_id",
29207                 "lqi": 10.0,
29208                 "rssi": 55.0
29209             }
29210         ,
29211         "schema": { "$ref": "#/definitions/SignalStrength" }
29212     }
29213 }
29214 }
29215 }
29216 },
29217 "parameters": {
29218     "interface" : {
29219         "in" : "query",
29220         "name" : "if",
29221         "type" : "string",
29222         "enum" : ["oic.if.s", "oic.if.baseline"]
29223     }
29224 },
29225 "definitions": {
29226     "SignalStrength" :
29227     {
29228         "properties": {
29229             "id": {
29230                 "description": "Instance ID of this specific resource",
29231                 "maxLength": 64,
29232                 "readOnly": true,
29233                 "type": "string"
29234             },
29235             "if": {
29236                 "description": "The interface set supported by this resource",
29237                 "items": {
29238                     "enum": [
29239                         "oic.if.baseline",
29240                         "oic.if.ll",
29241                         "oic.if.b",
29242                         "oic.if.lb",
29243                         "oic.if.rw",
29244                         "oic.if.r",
29245                         "oic.if.a",
29246                         "oic.if.s"
29247                     ],
29248                     "type": "string"
29249                 },
29250                 "minItems": 1,
29251                 "readOnly": true,
29252                 "type": "array"
29253             },
29254             "lqi": {
29255                 "description": "current value of Link Quality Indicator",
29256                 "readOnly": true,
29257                 "type": "number"
29258             },
29259             "n": {
29260                 "description": "Friendly name of the resource",
29261                 "maxLength": 64,
29262                 "readOnly": true,
29263                 "type": "string"
29264             },
29265             "precision": {
29266                 "description": "Accuracy granularity of the exposed value",
29267                 "readOnly": true,
29268                 "type": "number"
29269             },
29270             "range": {
29271                 "description": "The valid range for the value Property",
29272                 "items": {

```

```

29273         "anyOf": [
29274             {
29275                 "type": "number"
29276             },
29277             {
29278                 "type": "integer"
29279             }
29280         ],
29281     },
29282     "maxItems": 2,
29283     "minItems": 2,
29284     "readOnly": true,
29285     "type": "array"
29286 },
29287 "rssi": {
29288     "description": "current value of Received Signal Strength Indicator",
29289     "readOnly": true,
29290     "type": "number"
29291 },
29292 "rt": {
29293     "description": "Resource Type",
29294     "items": {
29295         "maxLength": 64,
29296         "type": "string"
29297     },
29298     "minItems": 1,
29299     "readOnly": true,
29300     "type": "array"
29301 },
29302 "step": {
29303     "anyOf": [
29304         {
29305             "type": "integer"
29306         },
29307         {
29308             "type": "number"
29309         }
29310     ],
29311     "description": "Step value across the defined range",
29312     "readOnly": true
29313 },
29314 "value": {
29315     "anyOf": [
29316         {
29317             "type": "array"
29318         },
29319         {
29320             "type": "string"
29321         },
29322         {
29323             "type": "boolean"
29324         },
29325         {
29326             "type": "integer"
29327         },
29328         {
29329             "type": "number"
29330         },
29331         {
29332             "type": "object"
29333         }
29334     ],
29335     "description": "The value sensed or actuated by this Resource"
29336 }
29337 },
29338 "required": [
29339     "lqi",
29340     "rssi"
29341 ],
29342 "type": "object"
29343 }

```

29344  
29345  
29346  
29347

```

    }
  }
}

```

29348 **B.64.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
id	string		Read Only	Instance ID of this specific resource
rt	array: see schema		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource
n	string		Read Only	Friendly name of the resource
range	array: see schema		Read Only	The valid range for the value Property
if	array: see schema		Read Only	The interface set supported by this resource
rsi	number	yes	Read Only	current value of Received Signal Strength Indicator
lqi	number	yes	Read Only	current value of Link Quality Indicator
precision	number		Read Only	Accuracy granularity of the exposed value
step	multiple types: see schema		Read Only	Step value across the defined range

29349 **B.64.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/SignalStrengthResURI		get			

29350 **B.65 Sleep Sensor**

29351 **B.65.1 Introduction**

29352 This resource describes whether human sleep has been sensed or not.  
 29353 The value is a boolean.  
 29354 A value of 'true' means that sleep has been sensed.  
 29355 A value of 'false' means that sleep not been sensed.  
 29356

29357 **B.65.2 Example URI**

29358 /SleepSensorResURI

29359 **B.65.3 Resource Type**

29360 The resource type (rt) is defined as: ['oic.r.sensor.sleep'].

## B.65.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Sleep Sensor",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    },
    "schemes": ["http"],
    "consumes": ["application/json"],
    "produces": ["application/json"],
    "paths": {
      "/SleepSensorResURI" : {
        "get": {
          "description": "This resource describes whether human sleep has been sensed or not.\nThe
value is a boolean.\nA value of 'true' means that sleep has been sensed.\nA value of 'false' means
that sleep not been sensed.\n",
          "parameters": [
            { "$ref": "#/parameters/interface" }
          ],
          "responses": {
            "200": {
              "description": "",
              "x-example": {
                "rt": ["oic.r.sensor.sleep"],
                "id": "unique_example_id",
                "value": true
              },
              "schema": { "$ref": "#/definitions/sleep" }
            }
          }
        }
      }
    },
    "parameters": {
      "interface" : {
        "in" : "query",
        "name" : "if",
        "type" : "string",
        "enum" : ["oic.if.s", "oic.if.baseline"]
      }
    },
    "definitions": {
      "sleep" : {
        "properties": {
          "id": {
            "description": "Instance ID of this specific resource",
            "maxLength": 64,
            "readOnly": true,
            "type": "string"
          }
        }
      }
    }
  }
}
```

```

29431 },
29432 "if": {
29433   "description": "The interface set supported by this resource",
29434   "items": {
29435     "enum": [
29436       "oic.if.baseline",
29437       "oic.if.ll",
29438       "oic.if.b",
29439       "oic.if.lb",
29440       "oic.if.rw",
29441       "oic.if.r",
29442       "oic.if.a",
29443       "oic.if.s"
29444     ],
29445     "type": "string"
29446   },
29447   "minItems": 1,
29448   "readOnly": true,
29449   "type": "array"
29450 },
29451 "n": {
29452   "description": "Friendly name of the resource",
29453   "maxLength": 64,
29454   "readOnly": true,
29455   "type": "string"
29456 },
29457 "precision": {
29458   "description": "Accuracy granularity of the exposed value",
29459   "readOnly": true,
29460   "type": "number"
29461 },
29462 "range": {
29463   "description": "The valid range for the value Property",
29464   "items": {
29465     "anyOf": [
29466       {
29467         "type": "number"
29468       },
29469       {
29470         "type": "integer"
29471       }
29472     ]
29473   },
29474   "maxItems": 2,
29475   "minItems": 2,
29476   "readOnly": true,
29477   "type": "array"
29478 },
29479 "rt": {
29480   "description": "Resource Type",
29481   "items": {
29482     "maxLength": 64,
29483     "type": "string"
29484   },
29485   "minItems": 1,
29486   "readOnly": true,
29487   "type": "array"
29488 },
29489 "step": {
29490   "anyOf": [
29491     {
29492       "type": "integer"
29493     },
29494     {
29495       "type": "number"
29496     }
29497   ],
29498   "description": "Step value across the defined range",
29499   "readOnly": true
29500 },
29501 "value": {

```



```

29502         "description": "true = sensed, false = not sensed.",
29503         "readOnly": true,
29504         "type": "boolean"
29505     }
29506 },
29507 "required": [
29508     "value"
29509 ],
29510 "type": "object"
29511 }
29512
29513 }
29514 }
29515

```

## 29516 B.65.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range
if	array: see schema		Read Only	The interface set supported by this resource
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
id	string		Read Only	Instance ID of this specific resource
value	boolean	yes	Read Only	true = sensed, false = not sensed.
precision	number		Read Only	Accuracy granularity of the exposed value

## 29517 B.65.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/SleepSensorResURI		get			

## 29518 B.66 Smoke Sensor

### 29519 B.66.1 Introduction

29520 This resource describes whether smoke has been sensed or not.  
 29521 The value is a boolean.  
 29522 A value of 'true' means that smoke has been sensed.  
 29523 A value of 'false' means that smoke not been sensed.  
 29524

### 29525 B.66.2 Example URI

29526 /SmokeSensorResURI

### 29527 B.66.3 Resource Type

29528 The resource type (rt) is defined as: ['oic.r.sensor.smoke'].

## B.66.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Smoke Sensor",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    },
    "schemes": ["http"],
    "consumes": ["application/json"],
    "produces": ["application/json"],
    "paths": {
      "/SmokeSensorResURI" : {
        "get": {
          "description": "This resource describes whether smoke has been sensed or not.\nThe value is
a boolean.\nA value of 'true' means that smoke has been sensed.\nA value of 'false' means that
smoke not been sensed.\n",
          "parameters": [
            { "$ref": "#/parameters/interface" }
          ],
          "responses": {
            "200": {
              "description": "",
              "x-example": {
                "rt": ["oic.r.sensor.smoke"],
                "id": "unique_example_id",
                "value": true
              },
              "schema": { "$ref": "#/definitions/smoke" }
            }
          }
        }
      }
    },
    "parameters": {
      "interface" : {
        "in" : "query",
        "name" : "if",
        "type" : "string",
        "enum" : ["oic.if.s", "oic.if.baseline"]
      }
    },
    "definitions": {
      "smoke" : {
        "properties": {
          "id": {
            "description": "Instance ID of this specific resource",
            "maxLength": 64,
            "readOnly": true,
            "type": "string"
          }
        }
      }
    }
  }
}
```

```

29599 },
29600 "if": {
29601   "description": "The interface set supported by this resource",
29602   "items": {
29603     "enum": [
29604       "oic.if.baseline",
29605       "oic.if.ll",
29606       "oic.if.b",
29607       "oic.if.lb",
29608       "oic.if.rw",
29609       "oic.if.r",
29610       "oic.if.a",
29611       "oic.if.s"
29612     ],
29613     "type": "string"
29614   },
29615   "minItems": 1,
29616   "readOnly": true,
29617   "type": "array"
29618 },
29619 "n": {
29620   "description": "Friendly name of the resource",
29621   "maxLength": 64,
29622   "readOnly": true,
29623   "type": "string"
29624 },
29625 "precision": {
29626   "description": "Accuracy granularity of the exposed value",
29627   "readOnly": true,
29628   "type": "number"
29629 },
29630 "range": {
29631   "description": "The valid range for the value Property",
29632   "items": {
29633     "anyOf": [
29634       {
29635         "type": "number"
29636       },
29637       {
29638         "type": "integer"
29639       }
29640     ]
29641   },
29642   "maxItems": 2,
29643   "minItems": 2,
29644   "readOnly": true,
29645   "type": "array"
29646 },
29647 "rt": {
29648   "description": "Resource Type",
29649   "items": {
29650     "maxLength": 64,
29651     "type": "string"
29652   },
29653   "minItems": 1,
29654   "readOnly": true,
29655   "type": "array"
29656 },
29657 "step": {
29658   "anyOf": [
29659     {
29660       "type": "integer"
29661     },
29662     {
29663       "type": "number"
29664     }
29665   ],
29666   "description": "Step value across the defined range",
29667   "readOnly": true
29668 },
29669 "value": {

```

```

29670         "description": "true = sensed, false = not sensed.",
29671         "readOnly": true,
29672         "type": "boolean"
29673     },
29674 },
29675 "required": [
29676     "value"
29677 ],
29678 "type": "object"
29679 }
29680
29681 }
29682 }
29683

```

## 29684 B.66.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema		Read Only	Resource Type
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource
value	boolean	yes	Read Only	true = sensed, false = not sensed.
if	array: see schema		Read Only	The interface set supported by this resource
precision	number		Read Only	Accuracy granularity of the exposed value

## 29685 B.66.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/SmokeSensorResURI		get			

## 29686 B.67 Speech Synthesis-TTS

### 29687 B.67.1 Introduction

29688 This resource may be created on the OIC Server that is capable of rendering speech by an OIC  
29689 Client  
29690 and allows the client to provide an SSML document with text to render  
29691 or may be created on the OIC Server by some resident application.  
29692 The audio rendered is at this stage local to the Server (i.e. not streamed).  
29693 The utterance is an SSML document.  
29694 The supportedLanguages is an array of the RFC 5646 defined language tags that are supported.  
29695 The supportedVoices is an SSML document fragment indicating the voices that are supported.  
29696 Utterance in the example shall be a properly escaped (JSON rules) SSML document. An example  
29697 is given below:  
29698 "<?xml version="1.0" encoding="ISO-8859-1"?>

```

29699
29700
29701     <speak                version="1.1"                xmlns="http://www.w3.org/2001/10/synthesis"
29702
29703
29704         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
29705
29706
29707         xsi:schemaLocation="http://www.w3.org/2001/10/synthesis
29708
29709
29710         http://www.w3.org/TR/speech-synthesis11/synthesis.xsd"
29711
29712
29713         xml:lang="en-US">
29714
29715
29716
29717
29718
29719         The                title                of                the                movie                is:
29720
29721
29722         "Monty                Pythons                The                Meaning                of                Life"
29723
29724
29725         which                is                directed                by                Terry                Jones.
29726
29727
29728     </speak"
29729

```

## 29730 B.67.2 Example URI

29731 /SpeechTTSResURI

## 29732 B.67.3 Resource Type

29733 The resource type (rt) is defined as: ['oic.r.speech.tts'].

## 29734 B.67.4 Swagger2.0 Definition

```

29735 {
29736     "swagger": "2.0",
29737     "info": {
29738         "title": "Speech Synthesis-TTS",
29739         "version": "v1.1.0-20160519",
29740         "license": {
29741             "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
29742             "x-description": "Redistribution and use in source and binary forms, with or without
29743 modification, are permitted provided that the following conditions are met:\n        1.
29744 Redistributions of source code must retain the above copyright notice, this list of conditions and
29745 the following disclaimer.\n        2. Redistributions in binary form must reproduce the above
29746 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
29747 other materials provided with the distribution.\n\n        THIS SOFTWARE IS PROVIDED BY THE Open
29748 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
29749 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
29750 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n        IN NO EVENT SHALL THE Open Connectivity
29751 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
29752 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
29753 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n\n        HOWEVER CAUSED AND
29754 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
29755 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
29756 OF SUCH DAMAGE.\n"

```

```

29757     }
29758   },
29759   "schemes": ["http"],
29760   "consumes": ["application/json"],
29761   "produces": ["application/json"],
29762   "paths": {
29763     "/SpeechTTSResURI" : {
29764       "get": {
29765         "description": "This resource may be created on the OIC Server that is capable of rendering
29766 speech by an OIC Client\n and allows the client to provide an SSML document with text to render\n
29767 or may be created on the OIC Server by some resident application.\nThe audio rendered is at this
29768 stage local to the Server (i.e. not streamed).\nThe utterance is an SSML document.\nThe
29769 supportedLanguages is an array of the RFC 5646 defined language tags that are supported.\nThe
29770 supportedVoices is an SSML document fragment indicating the voices that are supported.\nUtterance
29771 in the example shall be a properly escaped (JSON rules) SSML document. An example is given below:\n
29772 \<?xml version=\"1.0\" encoding=\"ISO-8859-1\"?>\n\r\n <speak version=\"1.1\"
29773 xmlns=\"http://www.w3.org/2001/10/synthesis\"\n\r\n
29774 \txmlns:xsi=\"http://www.w3.org/2001/XMLSchema-instance\"\n\r\n
29775 \txsi:schemaLocation=\"http://www.w3.org/2001/10/synthesis\n\r\n
29776 \thttp://www.w3.org/TR/speech-synthesis11/synthesis.xsd\"\n\r\n \txml:lang=\"en-US\">\n\r\n
29777 \n\r\n \tThe title of the movie is:\n\r\n \t\"Monty Pythons The Meaning of Life\"\n\r\n \twhich
29778 is directed by Terry Jones.\n\r\n </speak\"\n",
29779       "parameters": [
29780         { "$ref": "#/parameters/interface" }
29781       ],
29782       "responses": {
29783         "200": {
29784           "description": "",
29785           "x-example":
29786             {
29787               "rt": ["oic.r.speech.tts"],
29788               "id": "unique_example_id",
29789               "utterance": "SSML Document",
29790               "supportedLanguages": ["en-US", "en-GB", "fr-CA"],
29791               "supportedVoices": "<voice gender=\"female\" variant=\"2\"></voice>\n\r<voice
29792 name=\"Mike\"></voice>"
29793             }
29794           ,
29795           "schema": { "$ref": "#/definitions/Speech" }
29796         }
29797       }
29798     },
29799     "post": {
29800       "description": "Changes the utterance being rendered.\nExample shows a change in language
29801 selected.\n",
29802       "parameters": [
29803         { "$ref": "#/parameters/interface" },
29804         {
29805           "name": "body",
29806           "in": "body",
29807           "required": true,
29808           "schema": { "$ref": "#/definitions/Speech" },
29809           "x-example":
29810             {
29811               "rt": ["oic.r.speech.tts"],
29812               "id": "unique_example_id",
29813               "utterance": "SSML Document"
29814             }
29815         }
29816       ],
29817       "responses": {
29818         "200": {
29819           "description": "",
29820           "x-example":
29821             {
29822               "rt": ["oic.r.speech.tts"],
29823               "id": "unique_example_id",
29824               "utterance": "SSML Document"
29825             }
29826           ,
29827           "schema": { "$ref": "#/definitions/Speech" }

```

```

29828     }
29829   }
29830 }
29831 }
29832 },
29833 "parameters": {
29834   "interface" : {
29835     "in" : "query",
29836     "name" : "if",
29837     "type" : "string",
29838     "enum" : ["oic.if.a", "oic.if.baseline"]
29839   }
29840 },
29841 "definitions": {
29842   "Speech" :
29843     {
29844     "properties": {
29845       "id": {
29846         "description": "Instance ID of this specific resource",
29847         "maxLength": 64,
29848         "readOnly": true,
29849         "type": "string"
29850       },
29851       "if": {
29852         "description": "The interface set supported by this resource",
29853         "items": {
29854           "enum": [
29855             "oic.if.baseline",
29856             "oic.if.ll",
29857             "oic.if.b",
29858             "oic.if.lb",
29859             "oic.if.rw",
29860             "oic.if.r",
29861             "oic.if.a",
29862             "oic.if.s"
29863           ],
29864           "type": "string"
29865         },
29866         "minItems": 1,
29867         "readOnly": true,
29868         "type": "array"
29869       },
29870       "n": {
29871         "description": "Friendly name of the resource",
29872         "maxLength": 64,
29873         "readOnly": true,
29874         "type": "string"
29875       },
29876       "precision": {
29877         "description": "Accuracy granularity of the exposed value",
29878         "readOnly": true,
29879         "type": "number"
29880       },
29881       "range": {
29882         "description": "The valid range for the value Property",
29883         "items": {
29884           "anyOf": [
29885             {
29886               "type": "number"
29887             },
29888             {
29889               "type": "integer"
29890             }
29891           ]
29892         },
29893         "maxItems": 2,
29894         "minItems": 2,
29895         "readOnly": true,
29896         "type": "array"
29897       },
29898       "rt": {

```

```

29899         "description": "Resource Type",
29900         "items": {
29901             "maxLength": 64,
29902             "type": "string"
29903         },
29904         "minItems": 1,
29905         "readOnly": true,
29906         "type": "array"
29907     },
29908     "step": {
29909         "anyOf": [
29910             {
29911                 "type": "integer"
29912             },
29913             {
29914                 "type": "number"
29915             }
29916         ],
29917         "description": "Step value across the defined range",
29918         "readOnly": true
29919     },
29920     "supportedLanguages": {
29921         "description": "array of supported language tags",
29922         "items": {
29923             "type": "string"
29924         },
29925         "readOnly": true,
29926         "type": "array"
29927     },
29928     "supportedVoices": {
29929         "description": "SSML document fragment indicating supported voices",
29930         "readOnly": true,
29931         "type": "string"
29932     },
29933     "utterance": {
29934         "description": "SSML document including the speech body",
29935         "type": "string"
29936     },
29937     "value": {
29938         "anyOf": [
29939             {
29940                 "type": "array"
29941             },
29942             {
29943                 "type": "string"
29944             },
29945             {
29946                 "type": "boolean"
29947             },
29948             {
29949                 "type": "integer"
29950             },
29951             {
29952                 "type": "number"
29953             },
29954             {
29955                 "type": "object"
29956             }
29957         ],
29958         "description": "The value sensed or actuated by this Resource"
29959     }
29960 },
29961 "required": [
29962     "utterance"
29963 ],
29964 "type": "object"
29965 }
29966 }
29967 }
29968 }
29969

```



29970 **B.67.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
value	multiple types: see schema			The value sensed or actuated by this Resource
id	string		Read Only	Instance ID of this specific resource
range	array: see schema		Read Only	The valid range for the value Property
step	multiple types: see schema		Read Only	Step value across the defined range
utterance	string	yes		SSML document including the speech body
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
supportedLanguages	array: see schema		Read Only	array of supported language tags
supportedVoices	string		Read Only	SSML document fragment indicating supported voices

29971 **B.67.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/SpeechTTSResURI		get	post		

29972 **B.68 Temperature**

29973 **B.68.1 Introduction**

29974 This resource describes a sensed or actuated Temperature value.  
 29975 The temperature describes the current value measured.  
 29976 The units is a single value that is one of C, F or K.  
 29977 It provides the unit of measurement for the temperature value.  
 29978 It is a read-only value that is provided by the server.  
 29979 If the units Property is missing the default is Celsius [C].  
 29980 When range (from oic.r.baseresource) is omitted the default is +/- MAXINT.  
 29981 Retrieves the current temperature value.  
 29982 A client can specify the units for the requested temperature by use of a query parameter.  
 29983 If no query parameter is provided the server provides its default measure or set value.

29984 It is recommended to return always the units Property in the result.  
29985

## 29986 **B.68.2 Example URI**

29987 /TemperatureResURI

## 29988 **B.68.3 Resource Type**

29989 The resource type (rt) is defined as: ['oic.r.temperature'].

## 29990 **B.68.4 Swagger2.0 Definition**

```
29991 {  
29992   "swagger": "2.0",  
29993   "info": {  
29994     "title": "Temperature",  
29995     "version": "v1.1.0-20160519",  
29996     "license": {  
29997       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
29998       "x-description": "Redistribution and use in source and binary forms, with or without  
29999 modification, are permitted provided that the following conditions are met:\n      1.  
30000 Redistributions of source code must retain the above copyright notice, this list of conditions and  
30001 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
30002 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
30003 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open  
30004 Connectivity Foundation, INC. \n      \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
30005 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
30006 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity  
30007 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
30008 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
30009 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND  
30010 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
30011 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
30012 OF SUCH DAMAGE.\n    }  
30013   },  
30014   "schemes": ["http"],  
30015   "consumes": ["application/json"],  
30016   "produces": ["application/json"],  
30017   "paths": {  
30018     "/TemperatureResURI" : {  
30019       "get": {  
30020         "description": "This resource describes a sensed or actuated Temperature value.\nThe  
30021 temperature describes the current value measured.\nThe units is a single value that is one of C, F  
30022 or K.\nIt provides the unit of measurement for the temperature value.\nIt is a read-only value that  
30023 is provided by the server.\nIf the units Property is missing the default is Celsius [C].\nWhen  
30024 range (from oic.r.baseresource) is omitted the default is +/- MAXINT.\nRetrieves the current  
30025 temperature value.\nA client can specify the units for the requested temperature by use of a query  
30026 parameter.\nIf no query parameter is provided the server provides its default measure or set  
30027 value.\nIt is recommended to return always the units Property in the result.\n",  
30028         "parameters": [  
30029           {  
30030             "$ref": "#/parameters/interface",  
30031             {  
30032               "in": "query",  
30033               "description": "Units",  
30034               "type": "string",  
30035               "enum": ["C", "F", "K"],  
30036               "name": "units"  
30037             }  
30038           },  
30039         ],  
30040         "responses": {  
30041           "200": {  
30042             "description": "",  
30043             "x-example": {  
30044               "rt": ["oic.r.temperature"],  
30045               "id": "unique_example_id",  
30046               "temperature": 20.0,  
30047               "units": "C",  
30048               "range": [0.0,100.0]  
30049             }  
30050           }  
30051         }  
30052       }  
30053     }  
30054   }  
30055 }
```

```

30050         ,
30051         "schema": { "$ref": "#/definitions/Temperature" }
30052     },
30053     "403": {
30054         "description": "This response is generated by the OIC Server when the client
30055 sends:\n A retrieve with q queryParameter indicating a unit that the server does not support.\nThe
30056 server responds with the current resource representation including the\nunits property illustrating
30057 the supported units and the error.\n",
30058         "x-example":
30059         {
30060             "id": "unique_example_id",
30061             "temperature": 20.0,
30062             "units": "C"
30063         }
30064         ,
30065         "schema": { "$ref": "#/definitions/Temperature" }
30066     }
30067 },
30068 },
30069 "post": {
30070     "description": "Sets the desired temperature value.\nIf a unit is included and the server
30071 does not support the unit indicated the request will fail.\nIf the units are omitted value is taken
30072 to be in C.\n",
30073     "parameters": [
30074         { "$ref": "#/parameters/interface" },
30075         {
30076             "name": "body",
30077             "in": "body",
30078             "required": true,
30079             "schema": { "$ref": "#/definitions/Temperature" },
30080             "x-example":
30081             {
30082                 "id": "unique_example_id",
30083                 "temperature": 18.0
30084             }
30085         }
30086     ],
30087     "responses": {
30088         "200": {
30089             "description": "",
30090             "x-example":
30091             {
30092                 "id": "unique_example_id",
30093                 "temperature": 18.0
30094             }
30095             ,
30096             "schema": { "$ref": "#/definitions/Temperature" }
30097         },
30098         "403": {
30099             "description": "This response is generated by the OIC Server when the client
30100 sends:\n An update with an out of range property value for temperature.\n An update with an
30101 unsupported unit for this server.\nThe server responds with the current resource representation
30102 including\nthe range property illustrating the supported range and the error.\n",
30103             "x-example":
30104             {
30105                 "id": "unique_example_id",
30106                 "temperature": 20.0,
30107                 "units": "C",
30108                 "range": [0.0,100.0]
30109             }
30110             ,
30111             "schema": { "$ref": "#/definitions/Temperature" }
30112         }
30113     }
30114 },
30115 },
30116 },
30117 "parameters": {
30118     "interface" : {
30119         "in" : "query",
30120         "name" : "if",

```

```

30121         "type" : "string",
30122         "enum" : ["oic.if.a", "oic.if.s", "oic.if.baseline"]
30123     },
30124 },
30125 "definitions": {
30126     "Temperature" :
30127     {
30128         "properties": {
30129             "id": {
30130                 "description": "Instance ID of this specific resource",
30131                 "maxLength": 64,
30132                 "readOnly": true,
30133                 "type": "string"
30134             },
30135             "if": {
30136                 "description": "The interface set supported by this resource",
30137                 "items": {
30138                     "enum": [
30139                         "oic.if.baseline",
30140                         "oic.if.ll",
30141                         "oic.if.b",
30142                         "oic.if.lb",
30143                         "oic.if.rw",
30144                         "oic.if.x",
30145                         "oic.if.a",
30146                         "oic.if.s"
30147                     ],
30148                     "type": "string"
30149                 },
30150                 "minItems": 1,
30151                 "readOnly": true,
30152                 "type": "array"
30153             },
30154             "n": {
30155                 "description": "Friendly name of the resource",
30156                 "maxLength": 64,
30157                 "readOnly": true,
30158                 "type": "string"
30159             },
30160             "precision": {
30161                 "description": "Accuracy granularity of the exposed value",
30162                 "readOnly": true,
30163                 "type": "number"
30164             },
30165             "range": {
30166                 "description": "The valid range for the value Property",
30167                 "items": {
30168                     "anyOf": [
30169                         {
30170                             "type": "number"
30171                         },
30172                         {
30173                             "type": "integer"
30174                         }
30175                     ]
30176                 },
30177                 "maxItems": 2,
30178                 "minItems": 2,
30179                 "readOnly": true,
30180                 "type": "array"
30181             },
30182             "rt": {
30183                 "description": "Resource Type",
30184                 "items": {
30185                     "maxLength": 64,
30186                     "type": "string"
30187                 },
30188                 "minItems": 1,
30189                 "readOnly": true,
30190                 "type": "array"
30191             },

```

```

30192     "step": {
30193         "anyOf": [
30194             {
30195                 "type": "integer"
30196             },
30197             {
30198                 "type": "number"
30199             }
30200         ],
30201         "description": "Step value across the defined range",
30202         "readOnly": true
30203     },
30204     "temperature": {
30205         "description": "Current temperature setting or measurement",
30206         "type": "number"
30207     },
30208     "units": {
30209         "description": "Units for the temperature value",
30210         "enum": [
30211             "C",
30212             "F",
30213             "K"
30214         ],
30215         "readOnly": true
30216     },
30217     "value": {
30218         "anyOf": [
30219             {
30220                 "type": "array"
30221             },
30222             {
30223                 "type": "string"
30224             },
30225             {
30226                 "type": "boolean"
30227             },
30228             {
30229                 "type": "integer"
30230             },
30231             {
30232                 "type": "number"
30233             },
30234             {
30235                 "type": "object"
30236             }
30237         ],
30238         "description": "The value sensed or actuated by this Resource"
30239     }
30240 },
30241 "required": [
30242     "temperature"
30243 ],
30244 "type": "object"
30245 }
30246 }
30247 }
30248 }
30249

```

### B.68.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
temperature	number	yes		Current temperature setting or measurement

n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type
value	multiple types: see schema			The value sensed or actuated by this Resource
units	multiple types: see schema		Read Only	Units for the temperature value
range	array: see schema		Read Only	The valid range for the value Property
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource

## 30251 B.68.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/TemperatureResURI		get	post		

## 30252 B.69 Three Axis Sensor

### 30253 B.69.1 Introduction

30254 This resource provides a representation of the measurement from a three-axis sensor.  
30255 The orientation is an array of numbers representing x-plane, y-plane and z-plane values.  
30256 The unit of measurement for each pane is 'g'.  
30257

### 30258 B.69.2 Example URI

30259 /ThreeAxisResURI

### 30260 B.69.3 Resource Type

30261 The resource type (rt) is defined as: ['oic.r.sensor.threeaxis'].

### 30262 B.69.4 Swagger2.0 Definition

```

30263 {
30264   "swagger": "2.0",
30265   "info": {
30266     "title": "Three Axis Sensor",
30267     "version": "v1.1.0-20160519",
30268     "license": {
30269       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
30270       "x-description": "Redistribution and use in source and binary forms, with or without
30271 modification, are permitted provided that the following conditions are met:\n      1.
30272 Redistributions of source code must retain the above copyright notice, this list of conditions and
30273 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
30274 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
30275 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open
30276 Connectivity Foundation, INC. \AS IS\ AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
30277 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
30278 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity

```

```

30279 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
30280 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
30281 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
30282 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
30283 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
30284 OF SUCH DAMAGE.\n"
30285     }
30286   },
30287   "schemes": ["http"],
30288   "consumes": ["application/json"],
30289   "produces": ["application/json"],
30290   "paths": {
30291     "/ThreeAxisResURI" : {
30292       "get": {
30293         "description": "This resource provides a representation of the measurement from a three-
30294 axis sensor.\nThe orientation is an array of numbers representing x-plane, y-plane and z-plane
30295 values.\nThe unit of measurement for each pane is 'g'.\n",
30296         "parameters": [
30297           { "$ref": "#/parameters/interface" }
30298         ],
30299         "responses": {
30300           "200": {
30301             "description": "",
30302             "x-example":
30303               {
30304                 "rt": ["oic.r.sensor.threeaxis"],
30305                 "id": "unique_example_id",
30306                 "orientation": [0.7, 1.1, -0.2]
30307               }
30308             ,
30309             "schema": { "$ref": "#/definitions/threeAxis" }
30310           }
30311         }
30312       }
30313     }
30314   },
30315   "parameters": {
30316     "interface" : {
30317       "in" : "query",
30318       "name" : "if",
30319       "type" : "string",
30320       "enum" : ["oic.if.s", "oic.if.baseline"]
30321     }
30322   },
30323   "definitions": {
30324     "threeAxis" :
30325       {
30326         "properties": {
30327           "id": {
30328             "description": "Instance ID of this specific resource",
30329             "maxLength": 64,
30330             "readOnly": true,
30331             "type": "string"
30332           },
30333           "if": {
30334             "description": "The interface set supported by this resource",
30335             "items": {
30336               "enum": [
30337                 "oic.if.baseline",
30338                 "oic.if.ll",
30339                 "oic.if.b",
30340                 "oic.if.lb",
30341                 "oic.if.rw",
30342                 "oic.if.r",
30343                 "oic.if.a",
30344                 "oic.if.s"
30345               ],
30346               "type": "string"
30347             },
30348             "minItems": 1,
30349             "readOnly": true,

```

```

30350         "type": "array"
30351     },
30352     "n": {
30353         "description": "Friendly name of the resource",
30354         "maxLength": 64,
30355         "readOnly": true,
30356         "type": "string"
30357     },
30358     "orientation": {
30359         "description": "Array containing x-plane, y-plane and z-plane orientation in 'g'.",
30360         "items": {
30361             "type": "number"
30362         },
30363         "maxItems": 3,
30364         "minItems": 3,
30365         "readOnly": true,
30366         "type": "array"
30367     },
30368     "precision": {
30369         "description": "Accuracy granularity of the exposed value",
30370         "readOnly": true,
30371         "type": "number"
30372     },
30373     "range": {
30374         "description": "The valid range for the value Property",
30375         "items": {
30376             "anyOf": [
30377                 {
30378                     "type": "number"
30379                 },
30380                 {
30381                     "type": "integer"
30382                 }
30383             ]
30384         },
30385         "maxItems": 2,
30386         "minItems": 2,
30387         "readOnly": true,
30388         "type": "array"
30389     },
30390     "rt": {
30391         "description": "Resource Type",
30392         "items": {
30393             "maxLength": 64,
30394             "type": "string"
30395         },
30396         "minItems": 1,
30397         "readOnly": true,
30398         "type": "array"
30399     },
30400     "step": {
30401         "anyOf": [
30402             {
30403                 "type": "integer"
30404             },
30405             {
30406                 "type": "number"
30407             }
30408         ],
30409         "description": "Step value across the defined range",
30410         "readOnly": true
30411     },
30412     "value": {
30413         "anyOf": [
30414             {
30415                 "type": "array"
30416             },
30417             {
30418                 "type": "string"
30419             },
30420             {

```



```

30421         "type": "boolean"
30422     },
30423     {
30424         "type": "integer"
30425     },
30426     {
30427         "type": "number"
30428     },
30429     {
30430         "type": "object"
30431     }
30432 ],
30433 "description": "The value sensed or actuated by this Resource"
30434 },
30435 },
30436 "required": [
30437     "orientation"
30438 ]
30439 }
30440
30441 }
30442 }
30443

```

#### 30444 B.69.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
orientation	array: see schema	yes	Read Only	Array containing x-plane, y-plane and z-plane orientation in 'g'.
if	array: see schema		Read Only	The interface set supported by this resource
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
step	multiple types: see schema		Read Only	Step value across the defined range

#### 30445 B.69.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ThreeAxisResURI		get			

## 30446 **B.70 Time Period**

### 30447 **B.70.1 Introduction**

30448 This resource describes the time period over which any additionally provided  
30449 information is derived or bounded.  
30450 The startTime and stopTime are ISO8601 encoded strings. startTime must be present.  
30451 The interval is the interval of the time period in minutes, if present this value must be no less than  
30452 1 minute.  
30453 stopTime and interval are mutually exclusive; both Properties cannot be present in a Resource  
30454 instance.  
30455 Defines a time period for information retrieval, action or other behaviour.  
30456

### 30457 **B.70.2 Example URI**

30458 /TimePeriodResURI

### 30459 **B.70.3 Resource Type**

30460 The resource type (rt) is defined as: ['oic.r.time.period'].

### 30461 **B.70.4 Swagger2.0 Definition**

```
30462 {  
30463   "swagger": "2.0",  
30464   "info": {  
30465     "title": "Time Period",  
30466     "version": "v1.1.0-20160519",  
30467     "license": {  
30468       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
30469       "x-description": "Redistribution and use in source and binary forms, with or without  
30470 modification, are permitted provided that the following conditions are met:\n      1.  
30471 Redistributions of source code must retain the above copyright notice, this list of conditions and  
30472 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
30473 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
30474 other materials provided with the distribution.\n      THIS SOFTWARE IS PROVIDED BY THE Open  
30475 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
30476 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
30477 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity  
30478 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
30479 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
30480 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND  
30481 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
30482 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
30483 OF SUCH DAMAGE.\n    "  
30484   }  
30485 },  
30486 "schemes": ["http"],  
30487 "consumes": ["application/json"],  
30488 "produces": ["application/json"],  
30489 "paths": {  
30490   "/TimePeriodResURI" : {  
30491     "get": {  
30492       "description": "This resource describes the time period over which any additionally  
30493 provided\ninformation is derived or bounded.\nThe startTime and stopTime are ISO8601 encoded  
30494 strings. startTime must be present.\nThe interval is the interval of the time period in minutes,  
30495 if present this value must be no less than 1 minute.\nstopTime and interval are mutually exclusive;  
30496 both Properties cannot be present in a Resource instance.\nDefines a time period for information  
30497 retrieval, action or other behaviour.\n",  
30498       "parameters": [  
30499         {"$ref": "#/parameters/interface"}  
30500       ],  
30501       "responses": {  
30502         "200": {  
30503           "description": "",  
30504           "x-example":  
30505             {  
30506               "rt": ["oic.r.time.period"],  
30507               "id": "unique_example_id",
```

```

30508         "startTime": "2015-01-09T14:30Z",
30509         "stopTime": "2015-01-09T14:45Z"
30510     }
30511     ,
30512     "schema": { "$ref": "#/definitions/TimePeriod" }
30513 }
30514 },
30515 },
30516 "post": {
30517     "description": "Sets or updates a time period for information retrieval, action or other
30518 behavior.\n",
30519     "parameters": [
30520         { "$ref": "#/parameters/interface" },
30521         {
30522             "name": "body",
30523             "in": "body",
30524             "required": true,
30525             "schema": { "$ref": "#/definitions/TimePeriod" },
30526             "x-example":
30527             {
30528                 "id": "unique_example_id",
30529                 "startTime": "2015-01-09T14:30Z",
30530                 "stopTime": "2015-01-09T14:45Z"
30531             }
30532         }
30533     ],
30534     "responses": {
30535         "200": {
30536             "description": "",
30537             "x-example":
30538             {
30539                 "id": "unique_example_id",
30540                 "startTime": "2015-01-09T14:30Z",
30541                 "stopTime": "2015-01-09T14:45Z"
30542             }
30543         },
30544         "schema": { "$ref": "#/definitions/TimePeriod" }
30545     }
30546 }
30547 },
30548 },
30549 },
30550 "parameters": {
30551     "interface": {
30552         "in": "query",
30553         "name": "if",
30554         "type": "string",
30555         "enum": ["oic.if.a", "oic.if.baseline"]
30556     }
30557 },
30558 "definitions": {
30559     "TimePeriod": {
30560         {
30561             "properties": {
30562                 "id": {
30563                     "description": "Instance ID of this specific resource",
30564                     "maxLength": 64,
30565                     "readOnly": true,
30566                     "type": "string"
30567                 },
30568                 "if": {
30569                     "description": "The interface set supported by this resource",
30570                     "items": {
30571                         "enum": [
30572                             "oic.if.baseline",
30573                             "oic.if.ll",
30574                             "oic.if.b",
30575                             "oic.if.lb",
30576                             "oic.if.rw",
30577                             "oic.if.r",
30578                             "oic.if.a",

```

```

30579         "oic.if.s"
30580     ],
30581     "type": "string"
30582 },
30583     "minItems": 1,
30584     "readOnly": true,
30585     "type": "array"
30586 },
30587     "interval": {
30588         "description": "Time interval in minutes after the startTime, if present stopTime
cannot be present",
30589         "type": "integer"
30590     },
30591 },
30592     "n": {
30593         "description": "Friendly name of the resource",
30594         "maxLength": 64,
30595         "readOnly": true,
30596         "type": "string"
30597     },
30598     "precision": {
30599         "description": "Accuracy granularity of the exposed value",
30600         "readOnly": true,
30601         "type": "number"
30602     },
30603     "range": {
30604         "description": "The valid range for the value Property",
30605         "items": {
30606             "anyOf": [
30607                 {
30608                     "type": "number"
30609                 },
30610                 {
30611                     "type": "integer"
30612                 }
30613             ]
30614         },
30615         "maxItems": 2,
30616         "minItems": 2,
30617         "readOnly": true,
30618         "type": "array"
30619     },
30620     "rt": {
30621         "description": "Resource Type",
30622         "items": {
30623             "maxLength": 64,
30624             "type": "string"
30625         },
30626         "minItems": 1,
30627         "readOnly": true,
30628         "type": "array"
30629     },
30630     "startTime": {
30631         "description": "Start time for the time period",
30632         "type": "string"
30633     },
30634     "step": {
30635         "anyOf": [
30636             {
30637                 "type": "integer"
30638             },
30639             {
30640                 "type": "number"
30641             }
30642         ],
30643         "description": "Step value across the defined range",
30644         "readOnly": true
30645     },
30646     "stopTime": {
30647         "description": "Stop time for the time period, if present interval cannot be present",
30648         "type": "string"
30649     },

```

```

30650     "value": {
30651         "anyOf": [
30652             {
30653                 "type": "array"
30654             },
30655             {
30656                 "type": "string"
30657             },
30658             {
30659                 "type": "boolean"
30660             },
30661             {
30662                 "type": "integer"
30663             },
30664             {
30665                 "type": "number"
30666             },
30667             {
30668                 "type": "object"
30669             }
30670         ],
30671         "description": "The value sensed or actuated by this Resource"
30672     },
30673 },
30674 "required": [
30675     "startTime"
30676 ],
30677 "type": "object"
30678 }
30679 }
30680 }
30681 }
30682

```

#### 30683 B.70.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
range	array: see schema		Read Only	The valid range for the value Property
value	multiple types: see schema			The value sensed or actuated by this Resource
startTime	string	yes		Start time for the time period
if	array: see schema		Read Only	The interface set supported by this resource
n	string		Read Only	Friendly name of the resource
step	multiple types: see schema		Read Only	Step value across the defined range
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type
stopTime	string			Stop time for the time period, if present interval

				cannot be present
id	string		Read Only	Instance ID of this specific resource
interval	integer			Time interval in minutes after the startTime, if present stopTime cannot be present

## 30684 B.70.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/TimePeriodResURI		get	post		

## 30685 B.71 Touch Sensor

### 30686 B.71.1 Introduction

30687 This resource describes whether touch has been sensed or not.  
30688 The value is a boolean.  
30689 A value of 'true' means that touch has been sensed.  
30690 A value of 'false' means that touch not been sensed.  
30691

### 30692 B.71.2 Example URI

30693 /TouchResURI

### 30694 B.71.3 Resource Type

30695 The resource type (rt) is defined as: ['oic.r.sensor.touch'].

### 30696 B.71.4 Swagger2.0 Definition

```

30697 {
30698   "swagger": "2.0",
30699   "info": {
30700     "title": "Touch Sensor",
30701     "version": "v1.1.0-20160519",
30702     "license": {
30703       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
30704       "x-description": "Redistribution and use in source and binary forms, with or without
30705 modification, are permitted provided that the following conditions are met:\n      1.
30706 Redistributions of source code must retain the above copyright notice, this list of conditions and
30707 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
30708 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
30709 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
30710 Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
30711 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
30712 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
30713 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
30714 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
30715 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
30716 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
30717 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
30718 OF SUCH DAMAGE.\n"
30719     }
30720   },
30721   "schemes": ["http"],
30722   "consumes": ["application/json"],
30723   "produces": ["application/json"],
30724   "paths": {
30725     "/TouchResURI" : {
30726       "get": {

```

```

30727         "description": "This resource describes whether touch has been sensed or not.\n\nThe value is
30728 a boolean.\n\nA value of 'true' means that touch has been sensed.\n\nA value of 'false' means that
30729 touch not been sensed.\n",
30730         "parameters": [
30731             { "$ref": "#/parameters/interface" }
30732         ],
30733         "responses": {
30734             "200": {
30735                 "description": "",
30736                 "x-example":
30737                     {
30738                         "rt": [ "oic.r.sensor.touch" ],
30739                         "id": "unique_example_id",
30740                         "value": true
30741                     },
30742             },
30743             "schema": { "$ref": "#/definitions/Touch" }
30744         }
30745     }
30746 }
30747 },
30748 },
30749 "parameters": {
30750     "interface": {
30751         "in": "query",
30752         "name": "if",
30753         "type": "string",
30754         "enum": [ "oic.if.s", "oic.if.baseline" ]
30755     }
30756 },
30757 "definitions": {
30758     "Touch": {
30759         {
30760             "properties": {
30761                 "id": {
30762                     "description": "Instance ID of this specific resource",
30763                     "maxLength": 64,
30764                     "readOnly": true,
30765                     "type": "string"
30766                 },
30767                 "if": {
30768                     "description": "The interface set supported by this resource",
30769                     "items": {
30770                         "enum": [
30771                             "oic.if.baseline",
30772                             "oic.if.ll",
30773                             "oic.if.b",
30774                             "oic.if.lb",
30775                             "oic.if.rw",
30776                             "oic.if.r",
30777                             "oic.if.a",
30778                             "oic.if.s"
30779                         ],
30780                         "type": "string"
30781                     },
30782                     "minItems": 1,
30783                     "readOnly": true,
30784                     "type": "array"
30785                 },
30786                 "n": {
30787                     "description": "Friendly name of the resource",
30788                     "maxLength": 64,
30789                     "readOnly": true,
30790                     "type": "string"
30791                 },
30792                 "precision": {
30793                     "description": "Accuracy granularity of the exposed value",
30794                     "readOnly": true,
30795                     "type": "number"
30796                 },
30797                 "range": {

```

```

30798         "description": "The valid range for the value Property",
30799         "items": {
30800             "anyOf": [
30801                 {
30802                     "type": "number"
30803                 },
30804                 {
30805                     "type": "integer"
30806                 }
30807             ]
30808         },
30809         "maxItems": 2,
30810         "minItems": 2,
30811         "readOnly": true,
30812         "type": "array"
30813     },
30814     "rt": {
30815         "description": "Resource Type",
30816         "items": {
30817             "maxLength": 64,
30818             "type": "string"
30819         },
30820         "minItems": 1,
30821         "readOnly": true,
30822         "type": "array"
30823     },
30824     "step": {
30825         "anyOf": [
30826             {
30827                 "type": "integer"
30828             },
30829             {
30830                 "type": "number"
30831             }
30832         ],
30833         "description": "Step value across the defined range",
30834         "readOnly": true
30835     },
30836     "value": {
30837         "description": "true = sensed, false = not sensed.",
30838         "readOnly": true,
30839         "type": "boolean"
30840     }
30841 },
30842 "required": [
30843     "value"
30844 ],
30845 "type": "object"
30846 }
30847
30848 }
30849
30850

```

### B.71.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
if	array: see schema		Read Only	The interface set supported by this resource
step	multiple types: see schema		Read Only	Step value across the defined range
n	string		Read Only	Friendly name of the resource
range	array: see schema		Read Only	The valid range for the value Property



id	string		Read Only	Instance ID of this specific resource
precision	number		Read Only	Accuracy granularity of the exposed value
rt	array: see schema		Read Only	Resource Type
value	boolean	yes	Read Only	true = sensed, false = not sensed.

## B.71.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/TouchResURI		get			

## B.72 UV Radiation

### B.72.1 Introduction

This resource specifies UV radiation measurement. The measurement is the current measured UV Index. Retrieves the current UV Radiation value.

### B.72.2 Example URI

/UVRadiationResURI

### B.72.3 Resource Type

The resource type (rt) is defined as: ['oic.r.sensor.radiation.uv'].

### B.72.4 Swagger2.0 Definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "UV Radiation",
    "version": "v1.1.0-20160519",
    "license": {
      "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
      "x-description": "Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions are met:\n      1.
Redistributions of source code must retain the above copyright notice, this list of conditions and
the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
copyright notice, this list of conditions and the following disclaimer in the documentation and/or
other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
Connectivity Foundation, INC. \\"AS IS\\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND
ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
OF SUCH DAMAGE.\n"
    }
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/UVRadiationResURI" : {
      "get": {
        "description": "This resource specifies UV radiation measurement.\nThe measurement is the
current measured UV Index\nRetrieves the current UV Radiation value\n",
```

```

30896     "parameters": [
30897         {"$ref": "#/parameters/interface"}
30898     ],
30899     "responses": {
30900         "200": {
30901             "description": "",
30902             "x-example":
30903                 {
30904                     "rt": ["oic.r.sensor.radiation.uv"],
30905                     "id": "unique_example_id",
30906                     "measurement": 3.5
30907                 },
30908             "schema": { "$ref": "#/definitions/UVRadiation" }
30909         }
30910     }
30911 },
30912 },
30913 },
30914 },
30915 "parameters": {
30916     "interface": {
30917         "in": "query",
30918         "name": "if",
30919         "type": "string",
30920         "enum": ["oic.if.s", "oic.if.baseline"]
30921     }
30922 },
30923 "definitions": {
30924     "UVRadiation": {
30925         {
30926             "properties": {
30927                 "id": {
30928                     "description": "Instance ID of this specific resource",
30929                     "maxLength": 64,
30930                     "readOnly": true,
30931                     "type": "string"
30932                 },
30933                 "if": {
30934                     "description": "The interface set supported by this resource",
30935                     "items": {
30936                         "enum": [
30937                             "oic.if.baseline",
30938                             "oic.if.ll",
30939                             "oic.if.b",
30940                             "oic.if.lb",
30941                             "oic.if.rw",
30942                             "oic.if.r",
30943                             "oic.if.a",
30944                             "oic.if.s"
30945                         ],
30946                         "type": "string"
30947                     },
30948                     "minItems": 1,
30949                     "readOnly": true,
30950                     "type": "array"
30951                 },
30952                 "measurement": {
30953                     "description": "The measured UV Index",
30954                     "readOnly": true,
30955                     "type": "number"
30956                 },
30957                 "n": {
30958                     "description": "Friendly name of the resource",
30959                     "maxLength": 64,
30960                     "readOnly": true,
30961                     "type": "string"
30962                 },
30963                 "precision": {
30964                     "description": "Accuracy granularity of the exposed value",
30965                     "readOnly": true,
30966                     "type": "number"

```

```

30967     },
30968     "range": {
30969         "description": "The valid range for the value Property",
30970         "items": {
30971             "anyOf": [
30972                 {
30973                     "type": "number"
30974                 },
30975                 {
30976                     "type": "integer"
30977                 }
30978             ]
30979         },
30980         "maxItems": 2,
30981         "minItems": 2,
30982         "readOnly": true,
30983         "type": "array"
30984     },
30985     "rt": {
30986         "description": "Resource Type",
30987         "items": {
30988             "maxLength": 64,
30989             "type": "string"
30990         },
30991         "minItems": 1,
30992         "readOnly": true,
30993         "type": "array"
30994     },
30995     "step": {
30996         "anyOf": [
30997             {
30998                 "type": "integer"
30999             },
31000             {
31001                 "type": "number"
31002             }
31003         ],
31004         "description": "Step value across the defined range",
31005         "readOnly": true
31006     },
31007     "value": {
31008         "anyOf": [
31009             {
31010                 "type": "array"
31011             },
31012             {
31013                 "type": "string"
31014             },
31015             {
31016                 "type": "boolean"
31017             },
31018             {
31019                 "type": "integer"
31020             },
31021             {
31022                 "type": "number"
31023             },
31024             {
31025                 "type": "object"
31026             }
31027         ],
31028         "description": "The value sensed or actuated by this Resource"
31029     }
31030 },
31031 "required": [
31032     "measurement"
31033 ],
31034 "type": "object"
31035 }
31036
31037 }

```

31038 }  
31039

31040 **B.72.5 Property Definition**

Property name	Value type	Mandatory	Access mode	Description
step	multiple types: see schema		Read Only	Step value across the defined range
id	string		Read Only	Instance ID of this specific resource
if	array: see schema		Read Only	The interface set supported by this resource
rt	array: see schema		Read Only	Resource Type
precision	number		Read Only	Accuracy granularity of the exposed value
n	string		Read Only	Friendly name of the resource
range	array: see schema		Read Only	The valid range for the value Property
measurement	number	yes	Read Only	The measured UV Index
value	multiple types: see schema			The value sensed or actuated by this Resource

31041 **B.72.6 CRUDN behaviour**

Resource	Create	Read	Update	Delete	Notify
/UVRadiationResURI		get			

31042 **B.73 Value Conditional**

31043 **B.73.1 Introduction**

31044 This resource specifies conditions that can be applied to an observed value in any Resource.  
31045 These conditions are applied by the server exposing the Resource to any generated notifications  
31046 because of subscriptions to the Resource.  
31047 A unicast RETRIEVE to the Resource will receive the most recent value; which may not be the  
31048 most recent notified value.  
31049 A server exposes this Resource in association with the Resource conveying the observed value.  
31050 This is done by means of a new Resource instance with an RT of ["oic.r.<thing being observed>",  
31051 "oic.r.value.conditional"], e.g ["oic.r.temperature", "oic.r.value.conditional"]. Please see Section  
31052 5.7.1 of the published OCF Resource Type Specification for more details.  
31053 The threshold is the amount by which the thing being observed must change before a notification  
31054 is sent.  
31055 The minnotifyperiod is the minimum time in ms (milliseconds) that must elapse before a notification  
31056 is sent.  
31057 If the maxnotifyperiod (time in ms (milliseconds)) elapses then a notification must be sent.  
31058 The maxnotifyperiod timer resets each time a notification is sent.  
31059 A value of '0' for any of threshold, minnotifyperiod or maxnotifyperiod means that the capability is  
31060 supported but not active.  
31061

31062 **B.73.2 Example URI**  
31063 /ValueConditionalResURI

### 31064 B.73.3 Resource Type

31065 The resource type (rt) is defined as: ['oic.r.value.conditional'].

### 31066 B.73.4 Swagger2.0 Definition

```
31067 {  
31068   "swagger": "2.0",  
31069   "info": {  
31070     "title": "Value Conditional",  
31071     "version": "v1.1.0-20161031",  
31072     "license": {  
31073       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
31074       "x-description": "Redistribution and use in source and binary forms, with or without  
31075 modification, are permitted provided that the following conditions are met:\n      1.  
31076 Redistributions of source code must retain the above copyright notice, this list of conditions and  
31077 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above  
31078 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
31079 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open  
31080 Connectivity Foundation, INC. \\\nAS IS\\n AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
31081 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
31082 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity  
31083 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,  
31084 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS  
31085 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n      HOWEVER CAUSED AND  
31086 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR  
31087 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY  
31088 OF SUCH DAMAGE.\n    }  
31089   },  
31090   },  
31091   "schemes": ["http"],  
31092   "consumes": ["application/json"],  
31093   "produces": ["application/json"],  
31094   "paths": {  
31095     "/ValueConditionalResURI" : {  
31096       "get": {  
31097         "description": "This resource specifies conditions that can be applied to an observed value  
31098 in any Resource.\nThese conditions are applied by the server exposing the Resource to any generated  
31099 notifications because of subscriptions to the Resource.\nA unicast RETRIEVE to the Resource will  
31100 receive the most recent value; which may not be the most recent notified value.\nA server exposes  
31101 this Resource in association with the Resource conveying the observed value.\nThis is done by means  
31102 of a new Resource instance with an RT of [\\oic.r.<thing being observed>\\n",  
31103 \\oic.r.value.conditional\\n], e.g [\\oic.r.temperature\\n, \\oic.r.value.conditional\\n]. Please see  
31104 Section 5.7.1 of the published OCF Resource Type Specification for more details.\nThe threshold is  
31105 the amount by which the thing being observed must change before a notification is sent.\nThe  
31106 minnotifyperiod is the minimum time in ms (milliseconds) that must elapse before a notification is  
31107 sent.\nIf the maxnotifyperiod (time in ms (milliseconds)) elapses then a notification must be  
31108 sent.\nThe maxnotifyperiod timer resets each time a notification is sent.\nA value of '0' for any  
31109 of threshold, minnotifyperiod or maxnotifyperiod means that the capability is supported but not  
31110 active.\n",  
31111       "parameters": [  
31112         {"$ref": "#/parameters/interface"}  
31113       ],  
31114       "responses": {  
31115         "200": {  
31116           "description": "",  
31117           "x-example":  
31118             {  
31119               "rt": ["oic.r.value.conditional"],  
31120               "id": "unique_example_id",  
31121               "threshold": 2,  
31122               "minnotifyperiod": 2000,  
31123               "maxnotifyperiod": 5000  
31124             }  
31125           ,  
31126           "schema": { "$ref": "#/definitions/valueconditional" }  
31127         }  
31128       }  
31129     }  
31130   }  
31131 }
```

```

31129     },
31130     "post": {
31131         "description": "body:\n application/json:\n      schema: valueconditional\n      example: |\n
31132 {\n      \"threshold\":      2,\n      \"minnotifyperiod\": 1500\n      }\n",
31133         "parameters": [
31134             { "$ref": "#/parameters/interface" }
31135         ],
31136         "responses": {
31137             "200": {
31138                 "description": "",
31139                 "x-example":
31140                 {
31141                     "threshold":      2,
31142                     "minnotifyperiod": 1500
31143                 },
31144                 "schema": { "$ref": "#/definitions/valueconditional" }
31145             }
31146         }
31147     }
31148 }
31149 },
31150 },
31151 "parameters": {
31152     "interface" : {
31153         "in" : "query",
31154         "name" : "if",
31155         "type" : "string",
31156         "enum" : ["oic.if.rw", "oic.if.baseline"]
31157     }
31158 },
31159 "definitions": {
31160     "valueconditional" :
31161     {
31162         "anyOf": [
31163             {
31164                 "required": [
31165                     "threshold"
31166                 ],
31167             },
31168             {
31169                 "required": [
31170                     "minnotifyperiod"
31171                 ],
31172             },
31173             {
31174                 "required": [
31175                     "maxnotifyperiod"
31176                 ],
31177             }
31178         ],
31179         "properties": {
31180             "maxnotifyperiod": {
31181                 "description": "Maximum elapsed time in ms before a notification must be sent.",
31182                 "minimum": 0,
31183                 "type": "integer"
31184             },
31185             "minnotifyperiod": {
31186                 "description": "Minimum elapsed time in ms before a notification is sent.",
31187                 "minimum": 0,
31188                 "type": "integer"
31189             },
31190             "threshold": {
31191                 "description": "Amount by which the measured value must change before a notification is
31192 sent.",
31193                 "minimum": 0,
31194                 "type": "number"
31195             }
31196         },
31197         "type": "object"
31198     }
31199 }

```

31200 }  
 31201 }  
 31202 }

### 31203 B.73.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
maxnotifyperiod	integer	yes		Maximum elapsed time in ms before a notification must be sent.
threshold	number			Amount by which the measured value must change before a notification is sent.
minnotifyperiod	integer			Minimum elapsed time in ms before a notification is sent.

### 31204 B.73.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/ValueConditionalResURI		get	post		

## 31205 B.74 Water Sensor

### 31206 B.74.1 Introduction

31207 This resource describes whether water has been sensed or not.  
 31208 The value is a boolean.  
 31209 A value of 'true' means that water has been sensed.  
 31210 A value of 'false' means that water not been sensed.  
 31211

### 31212 B.74.2 Example URI

31213 /WaterResURI

### 31214 B.74.3 Resource Type

31215 The resource type (rt) is defined as: ['oic.r.sensor.water'].

### 31216 B.74.4 Swagger2.0 Definition

31217 {  
 31218 "swagger": "2.0",  
 31219 "info": {  
 31220 "title": "Water Sensor",  
 31221 "version": "v1.1.0-20160519",  
 31222 "license": {  
 31223 "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",  
 31224 "x-description": "Redistribution and use in source and binary forms, with or without  
 31225 modification, are permitted provided that the following conditions are met:\n 1.  
 31226 Redistributions of source code must retain the above copyright notice, this list of conditions and  
 31227 the following disclaimer.\n 2. Redistributions in binary form must reproduce the above  
 31228 copyright notice, this list of conditions and the following disclaimer in the documentation and/or  
 31229 other materials provided with the distribution.\n\n THIS SOFTWARE IS PROVIDED BY THE Open  
 31230 Connectivity Foundation, INC. \n"AS IS\n" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT  
 31231 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR  
 31232 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n IN NO EVENT SHALL THE Open Connectivity  
 31233 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,

```

31234 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
31235 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
31236 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
31237 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
31238 OF SUCH DAMAGE.\n"
31239     }
31240   },
31241   "schemes": ["http"],
31242   "consumes": ["application/json"],
31243   "produces": ["application/json"],
31244   "paths": {
31245     "/WaterResURI" : {
31246       "get": {
31247         "description": "This resource describes whether water has been sensed or not.\nThe value is
31248 a boolean.\nA value of 'true' means that water has been sensed.\nA value of 'false' means that
31249 water not been sensed.\n",
31250         "parameters": [
31251           { "$ref": "#/parameters/interface" }
31252         ],
31253         "responses": {
31254           "200": {
31255             "description": "",
31256             "x-example":
31257               {
31258                 "rt": ["oic.r.sensor.water"],
31259                 "id": "unique_example_id",
31260                 "value": true
31261               },
31262             ,
31263             "schema": { "$ref": "#/definitions/Water" }
31264           }
31265         }
31266       }
31267     }
31268   },
31269   "parameters": {
31270     "interface" : {
31271       "in" : "query",
31272       "name" : "if",
31273       "type" : "string",
31274       "enum" : ["oic.if.s", "oic.if.baseline"]
31275     }
31276   },
31277   "definitions": {
31278     "Water" :
31279     {
31280       "properties": {
31281         "id": {
31282           "description": "Instance ID of this specific resource",
31283           "maxLength": 64,
31284           "readOnly": true,
31285           "type": "string"
31286         },
31287         "if": {
31288           "description": "The interface set supported by this resource",
31289           "items": {
31290             "enum": [
31291               "oic.if.baseline",
31292               "oic.if.ll",
31293               "oic.if.b",
31294               "oic.if.lb",
31295               "oic.if.rw",
31296               "oic.if.r",
31297               "oic.if.a",
31298               "oic.if.s"
31299             ],
31300             "type": "string"
31301           },
31302           "minItems": 1,
31303           "readOnly": true,
31304           "type": "array"

```



```

31305     },
31306     "n": {
31307         "description": "Friendly name of the resource",
31308         "maxLength": 64,
31309         "readOnly": true,
31310         "type": "string"
31311     },
31312     "precision": {
31313         "description": "Accuracy granularity of the exposed value",
31314         "readOnly": true,
31315         "type": "number"
31316     },
31317     "range": {
31318         "description": "The valid range for the value Property",
31319         "items": {
31320             "anyOf": [
31321                 {
31322                     "type": "number"
31323                 },
31324                 {
31325                     "type": "integer"
31326                 }
31327             ]
31328         },
31329         "maxItems": 2,
31330         "minItems": 2,
31331         "readOnly": true,
31332         "type": "array"
31333     },
31334     "rt": {
31335         "description": "Resource Type",
31336         "items": {
31337             "maxLength": 64,
31338             "type": "string"
31339         },
31340         "minItems": 1,
31341         "readOnly": true,
31342         "type": "array"
31343     },
31344     "step": {
31345         "anyOf": [
31346             {
31347                 "type": "integer"
31348             },
31349             {
31350                 "type": "number"
31351             }
31352         ],
31353         "description": "Step value across the defined range",
31354         "readOnly": true
31355     },
31356     "value": {
31357         "description": "true = sensed, false = not sensed.",
31358         "readOnly": true,
31359         "type": "boolean"
31360     }
31361 },
31362 "required": [
31363     "value"
31364 ],
31365 "type": "object"
31366 }
31367 }
31368 }
31369 }
31370

```

#### B.74.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
---------------	------------	-----------	-------------	-------------

step	multiple types: see schema		Read Only	Step value across the defined range
precision	number		Read Only	Accuracy granularity of the exposed value
range	array: see schema		Read Only	The valid range for the value Property
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
id	string		Read Only	Instance ID of this specific resource
n	string		Read Only	Friendly name of the resource
value	boolean	yes	Read Only	true = sensed, false = not sensed.

#### 31372 B.74.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/WaterResURI		get			

### 31373 B.75 Weight

#### 31374 B.75.1 Introduction

31375 This resource describes the properties associated with weight of an object.  
31376 Weight (weight) is weight of an object.  
31377 Retrieves weight of an object.  
31378

#### 31379 B.75.2 Example URI

31380 /WeightResURI

#### 31381 B.75.3 Resource Type

31382 The resource type (rt) is defined as: ['oic.r.weight'].

#### 31383 B.75.4 Swagger2.0 Definition

```

31384 {
31385   "swagger": "2.0",
31386   "info": {
31387     "title": "Weight",
31388     "version": "v1.1.0-20160519",
31389     "license": {
31390       "name": "copyright 2016-2017 Open Connectivity Foundation, Inc. All rights reserved.",
31391       "x-description": "Redistribution and use in source and binary forms, with or without
31392 modification, are permitted provided that the following conditions are met:\n      1.
31393 Redistributions of source code must retain the above copyright notice, this list of conditions and
31394 the following disclaimer.\n      2. Redistributions in binary form must reproduce the above
31395 copyright notice, this list of conditions and the following disclaimer in the documentation and/or
31396 other materials provided with the distribution.\n\n      THIS SOFTWARE IS PROVIDED BY THE Open
31397 Connectivity Foundation, INC. \"AS IS\" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
31398 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR
31399 WARRANTIES OF NON-INFRINGEMENT, ARE DISCLAIMED.\n      IN NO EVENT SHALL THE Open Connectivity
31400 Foundation, INC. OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
```

```

31401 EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
31402 OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)\n          HOWEVER CAUSED AND
31403 ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR
31404 OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY
31405 OF SUCH DAMAGE.\n"
31406 }
31407 },
31408 "schemes": ["http"],
31409 "consumes": ["application/json"],
31410 "produces": ["application/json"],
31411 "paths": {
31412     "/WeightResURI" : {
31413         "get": {
31414             "description": "This resource describes the properties associated with weight of an
31415 object.\nWeight (weight) is weight of an object.\nRetrieves weight of an object.\n",
31416             "parameters": [
31417                 {"$ref": "#/parameters/interface"}
31418             ],
31419             "responses": {
31420                 "200": {
31421                     "description": "",
31422                     "x-example":
31423                         {
31424                             "rt": ["oic.r.weight"],
31425                             "id": "unique_example_id",
31426                             "weight": 200.0
31427                         }
31428                 },
31429                 "schema": { "$ref": "#/definitions/Weight" }
31430             }
31431         }
31432     }
31433 },
31434 },
31435 "parameters": {
31436     "interface" : {
31437         "in" : "query",
31438         "name" : "if",
31439         "type" : "string",
31440         "enum" : ["oic.if.s", "oic.if.baseline"]
31441     }
31442 },
31443 "definitions": {
31444     "Weight" :
31445         {
31446             "properties": {
31447                 "id": {
31448                     "description": "Instance ID of this specific resource",
31449                     "maxLength": 64,
31450                     "readOnly": true,
31451                     "type": "string"
31452                 },
31453                 "if": {
31454                     "description": "The interface set supported by this resource",
31455                     "items": {
31456                         "enum": [
31457                             "oic.if.baseline",
31458                             "oic.if.ll",
31459                             "oic.if.b",
31460                             "oic.if.lb",
31461                             "oic.if.rw",
31462                             "oic.if.r",
31463                             "oic.if.a",
31464                             "oic.if.s"
31465                         ],
31466                         "type": "string"
31467                     },
31468                     "minItems": 1,
31469                     "readOnly": true,
31470                     "type": "array"
31471                 }

```

```

31472     "n": {
31473         "description": "Friendly name of the resource",
31474         "maxLength": 64,
31475         "readOnly": true,
31476         "type": "string"
31477     },
31478     "precision": {
31479         "description": "Accuracy granularity of the exposed value",
31480         "readOnly": true,
31481         "type": "number"
31482     },
31483     "range": {
31484         "description": "The valid range for the value Property",
31485         "items": {
31486             "anyOf": [
31487                 {
31488                     "type": "number"
31489                 },
31490                 {
31491                     "type": "integer"
31492                 }
31493             ]
31494         },
31495         "maxItems": 2,
31496         "minItems": 2,
31497         "readOnly": true,
31498         "type": "array"
31499     },
31500     "rt": {
31501         "description": "Resource Type",
31502         "items": {
31503             "maxLength": 64,
31504             "type": "string"
31505         },
31506         "minItems": 1,
31507         "readOnly": true,
31508         "type": "array"
31509     },
31510     "step": {
31511         "anyOf": [
31512             {
31513                 "type": "integer"
31514             },
31515             {
31516                 "type": "number"
31517             }
31518         ],
31519         "description": "Step value across the defined range",
31520         "readOnly": true
31521     },
31522     "value": {
31523         "anyOf": [
31524             {
31525                 "type": "array"
31526             },
31527             {
31528                 "type": "string"
31529             },
31530             {
31531                 "type": "boolean"
31532             },
31533             {
31534                 "type": "integer"
31535             },
31536             {
31537                 "type": "number"
31538             },
31539             {
31540                 "type": "object"
31541             }
31542         ],

```

```

31543         "description": "The value sensed or actuated by this Resource"
31544     },
31545     "weight": {
31546         "description": "Weight of an object",
31547         "minimum": 0,
31548         "readOnly": true,
31549         "type": "number"
31550     }
31551 },
31552 "required": [
31553     "weight"
31554 ],
31555 "type": "object"
31556 }
31557
31558 }
31559 }
31560

```

### 31561 B.75.5 Property Definition

Property name	Value type	Mandatory	Access mode	Description
precision	number		Read Only	Accuracy granularity of the exposed value
id	string		Read Only	Instance ID of this specific resource
step	multiple types: see schema		Read Only	Step value across the defined range
range	array: see schema		Read Only	The valid range for the value Property
n	string		Read Only	Friendly name of the resource
value	multiple types: see schema			The value sensed or actuated by this Resource
rt	array: see schema		Read Only	Resource Type
if	array: see schema		Read Only	The interface set supported by this resource
weight	number	yes	Read Only	Weight of an object

### 31562 B.75.6 CRUDN behaviour

Resource	Create	Read	Update	Delete	Notify
/WeightResURI		get			

31563