

**OCF “Dubai” – Add the network connectivity as an optional property to "/oic/p" – Core Technology WG CR 2647**

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## 2 Normative references

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#### 11.3.4 Resource based discovery: Finding information

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Table 26 defines "oic.wk.p" Resource Type.

**Table 1. "oic.wk.p" Resource Type definition**

Property title	Property name	Value type	Value rule	Unit	Access mode	Mandatory	Description
<b>Platform ID</b>	pi	uuid			R	yes	Unique identifier for the physical platform (UUID); this shall be a UUID in accordance with IETF RFC 4122. It is recommended that the UUID be created using the random generation scheme (version 4 UUID) specific in the RFC. Handling privacy-sensitivity for the "pi" Property, refer to section 13.8 in OCF Security.
<b>Manufacturer Name</b>	mnmn	string			R	yes	Name of manufacturer
<b>Manufacturer Details Link</b>	mnml	uri			R	no	Reference to manufacturer, represented as a URI
<b>Model Number</b>	mnmo	string			R	no	Model number as designated by manufacturer
<b>Date of Manufacture</b>	mnmt	date		Time	R	no	Manufacturing date of Platform.

<b>Serial number</b>	mnsel	string			R	no	Serial number of the Platform, may be unique for each Platform of the same model number.
<b>Platform Version</b>	mpv	string			R	no	Version of platform – string (defined by manufacturer)
<b>OS Version</b>	mnos	string			R	no	Version of platform resident OS – string (defined by manufacturer)
<b>Hardware Version</b>	mnhw	string			R	no	Version of platform hardware
<b>Firmware version</b>	mnfv	string			R	no	Version of Platform firmware
<b>Support link</b>	mnsi	uri			R	no	URI that points to support information from manufacturer
<b>SystemTime</b>	st	date-time			R	no	Reference time for the Platform.
<b>Vendor ID</b>	vid	string			R	no	Vendor defined string for the platform. The string is freeform and up to the vendor on what text to populate it.
<b>Network Connectivity Type</b>	mnct	array	array of integer		R	no	An array of integer where each integer indicates the network connectivity type based on IANAIfType value as defined by [IANA ifType-MIB Definitions], e.g., [71, 259] which represents Wi-Fi and Zigbee.

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### 11.5.3 Network monitoring

Network monitoring is used for monitoring the current network state of the Device.

The network monitoring Resource Type is "oic.wk.nmon" and is described in Table 31. The Resource Type may occur multiple times if more than 1 network interface is implemented. The Common Property "n" may be used to distinguish the different network interfaces, like distinguishing the 2.4 and 5G Wi-Fi network interfaces.



**Table 2 – Optional monitoring device management Core Resources**

Example URI	Resource Type Title	Resource Type ID ("rt" value)	Interfaces	Description	Related Functional Interaction
"/example/oic/nmon"	Network Monitoring	"oic.wk.nmon"	"oic.if.rw oic.if.baseline"	The Resource through which the Device is monitored.  The Resource exposes Properties relevant to aspects that may be monitored. The Resource Properties exposed by Resource Type "oic.wk.nmon" are listed in Table 32	Device Management

Table 32 defines oic.wk.nmon resource type.

**Table 3 – "oic.wk.nmon" Resource Type definition**

Property title	Property name	Value type	Value rule	Unit	Access mode	Mandatory	Description
Network indicator	ianaifType	integer	The integer value of the ianaifType	N/A	R	yes	The network type this Resource is collecting information from as defined by [IANA ifType-MIB Definitions].
reset	reset	boolean	True, all collected values should be reset. The server should reset the value automatically to false after the reset occurred.	N/A	RW	yes	Reset of the collected values
Collecting status indication	col	boolean	True: collecting data. False: not collecting data	N/A	RW	yes	Boolean to start/stop collecting data.
Transmission bytes	tx	integer	N/A	kilo bytes	R	no	Amount of transmitted kilo bytes from the collection
Reception bytes	rx	integer	N/A	kilo bytes	R	no	Amount of received kilo bytes from the collection'.
Maximum message size tx	mmstx	integer	bytes	bytes	R	no	Maximum transmitted message, e.g. Max(tx) in the collection period



Maximum message size rx	mmsrx	integer	bytes	byte s	R	no	Maximum received message, e.g. Max(rx) in the collection period
Average message size -tx	amstx	integer	bytes	byte s	R	no	Average transmitted message size, e.g AVG(tx) in the collection period.
Average message size -rx	amsrx	integer	bytes	byte s	R	no	Average received message size e.g AVT( rx) in the collection period.

Examples of typical used values for ianaifType are 71 (ieee80211) for Wi-Fi and 6 (ethernetCsmacd) for Ethernet.

A Device should start collecting network monitoring data when receiving an UPDATE operation with the parameter "col" = true. A Device should stop collecting network data when receiving an UPDATE operation with parameter "col" = false. The collected network data should be reset when an UPDATE operation with parameter "reset" = true is received, if the parameter "reset" is false then the values should not be reset. Figure 20 illustrates the interactions with the network monitoring Resource

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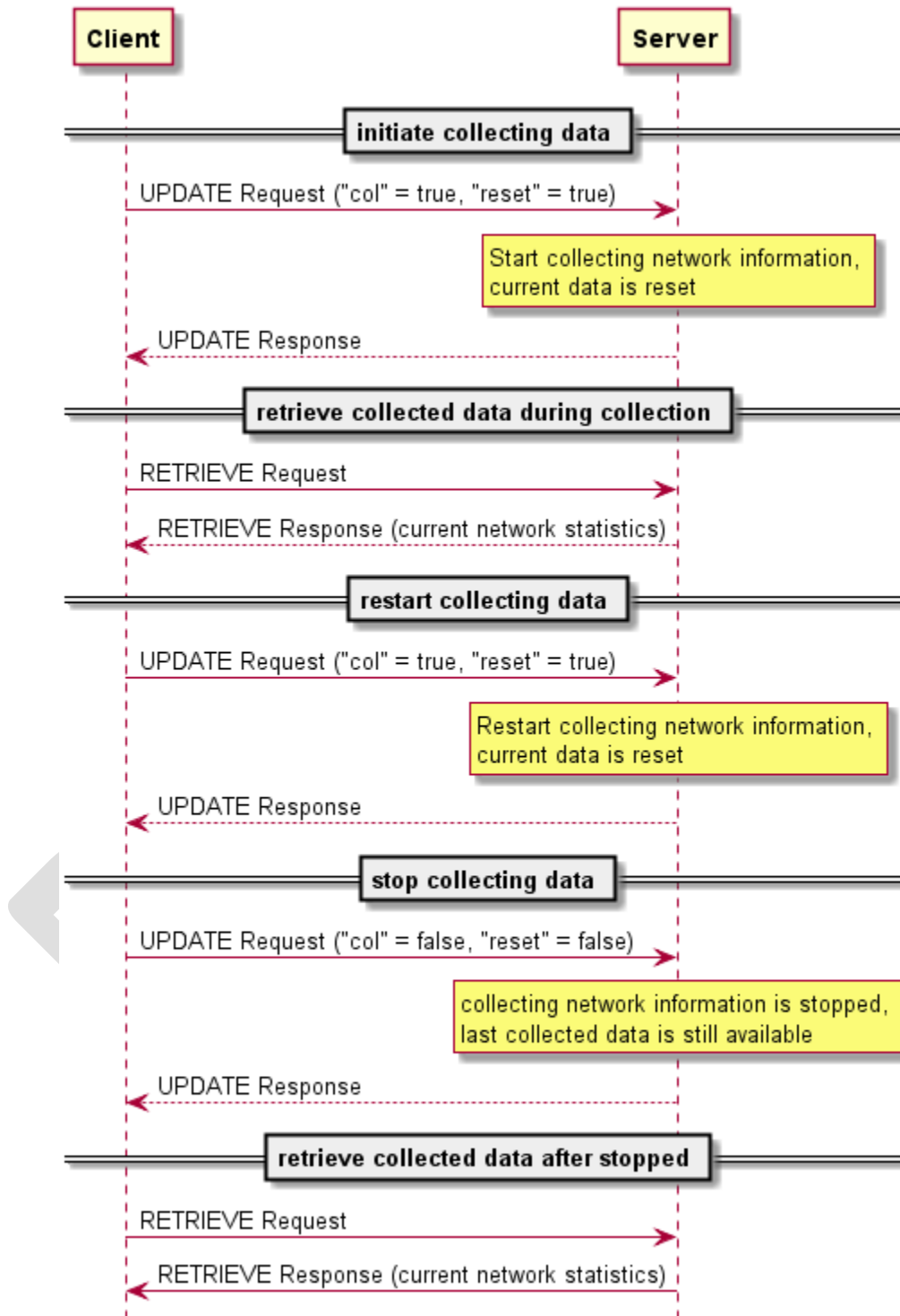
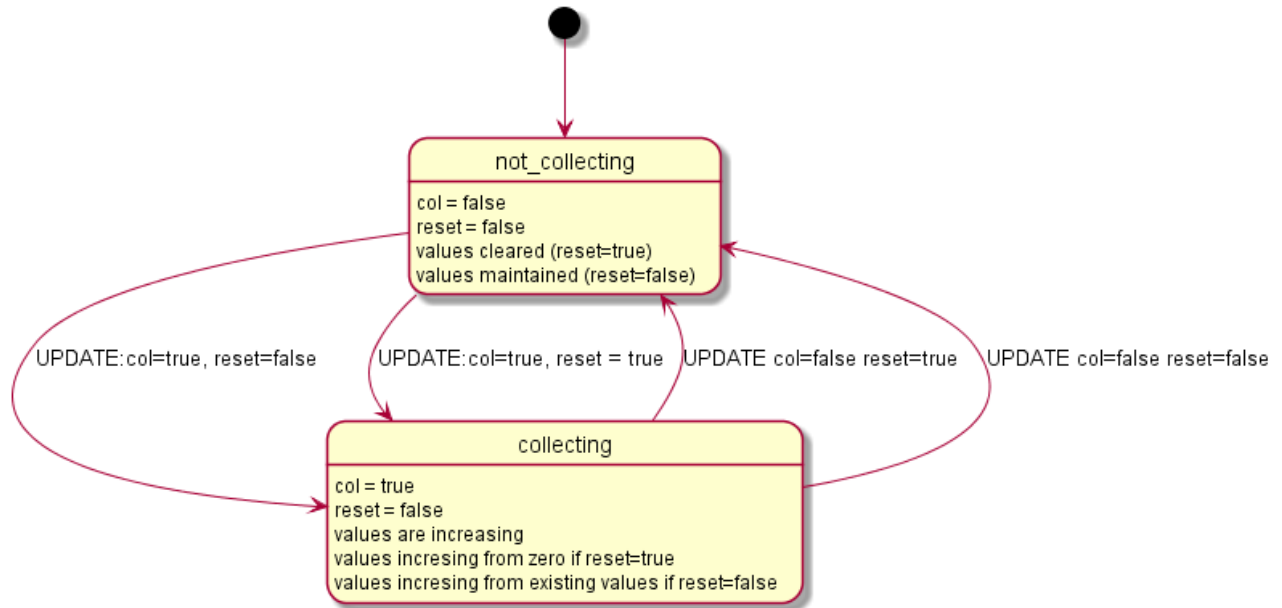


Figure 1 – Interactions with the network monitoring Resource

The state transition diagram for collecting or not collecting network information is described by Figure 21.



**Figure 2 – State transition diagram of collecting network information**