

**OCF “Fargo” – OBT / DOTS shall set "owned" Property to TRUE during onboarding –
Data Model WG CR 3006**

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START OF CHANGE

5.3 DOTS

5.3.1 Assuming ownership of a Device

The DOTS shall support all OTMs in clause 7.

An overview is provided in Clauses 5.3.3 and 7.2 of ISO/IEC 30118-2:2018.

The following steps shall be performed to take ownership of a Device. The Device is presumed to be in RFOTM.

- 1) The DOTS performs a multicast retrieve on the "/oic/sec/doxm" Resource using "owned=false" query parameter as described in ISO/IEC 30118-2:2018.
- 2) Before proceeding, the DOTS shall obtain acknowledgement from the OBT End-User that the OBT End-User approves the DOTS assuming ownership of the discovered Device(s). See security considerations in clause 5.3.3.
- 3) The DOTS selects a mutually supported OTM from the the "oxms" Property of the "/oic/sec/doxm" Resource. See security considerations in clause 5.3.3.
- 4) The DOTS shall UPDATE the "oxmsel" property of "/oic/sec/doxm" the value corresponding to the OTM being used, before performing other OTM steps.
- 5) The DOTS shall initiate a DTLS Session as specified for the OTM configured to the oxmsel Property of the "/oic/sec/doxm" Resource. Details are provided in clause 7.
- 6) The DOTS shall send an UPDATE request message to /oic/sec/pstat to set the value of "om" to 0b 0000 0100 to select Client-directed provisioning.
- 7) The DOTS shall update the "devowneruuid" Property of the "/oic/sec/doxm" Resource with the UUID of the DOTS.
- 8) The DOTS shall RETRIEVE the updated "deviceuuid" Property of the "/oic/sec/doxm" Resource after the DOTS has updated the "devowneruuid" Property value of the "/oic/sec/doxm" Resource to a non-nil-UUID value.
- 9) The DOTS may update the "deviceuuid" of the "/oic/sec/doxm" Resource to a value that the DOTS has selected.
- 10) The DOTS shall provision the ownership credential as follows:
 - a) The DOTS shall generate a Shared Key using the SharedKey Credential Calculation method described in clause 7.3.2 of ISO/IEC 30118-2:2018.
 - b) The DOTS shall add an entry to the "creds" array to the new Device's "/oic/sec/cred" Resource, identified as a symmetric pair-wise key, with an empty "privatedata" Properties, and with the value of the "subjectuuid" Property set to the value of "devowneruuid" Property of the "/oic/sec/doxm" Resource. See clause 13.3.1 of ISO/IEC 30118-2:2018 for details of such a request.
 - c) Upon receipt of the DOTS's symmetric owner credential, the new Device independently generates the Shared Key using the SharedKey Credential Calculation method described in clause 7.3.2 of ISO/IEC 30118-2:2018 and stores it with the owner credential.
- 11) The following steps are applied following successful establishment of ownership credentials, and prior to transitioning to RFPRO. These steps may occur in any order.

- The DOTS shall update the "rowneruuid" Property of the "/oic/sec/doxm" Resource with the UUID of the DOTS.
- The DOTS shall update the "rowneruuid" Property of the "/oic/sec/pstat" Resource with the UUID of the DOTS.
- The DOTS shall update the "rowneruuid" Property of the "/oic/sec/cred" Resource with the UUID of the CMS.
- The DOTS shall update the "rowneruuid" Property of the "/oic/sec/acl2" Resource with the UUID of the AMS.
- The DOTS shall update the "owned" Property of the "/oic/sec/doxm" Resource with value "true".
- The DOTS shall provision the "/oic/sec/cred" Resource with credentials that enable secure connections between OCF Services (e.g. DOTS, CMS, AMS, Mediator) and the new Device. The DOTS shall provision credentials according to the supported credential types shown in the "sct" Property of the "/oic/sec/doxm" Resource.
- The DOTS may UPDATE the "/oic/sec/acl2" Resource with ACEs and may UPDATE the "/oic/sec/cred" Resource with further credentials.

NOTE: When the Device is an OCF v1.3 Device, the DOTS is expected to send an UPDATE request to /oic/sec/doxm to change the value of "owned" to true.

12) To transition the Device to RFPRO, the DOTS sends an UPDATE request changing the "dos.s" Property of the "oic/sec/pstat" Resource to RFPRO.

END OF CHANGE