

**OCF “Essen” – Mandating of VODlist for Bridges – Core Technology WG CR 2920**

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### 5.3 General requirements

#### 5.3.1 Requirements common to all Bridge Platforms

A VOD shall have a Device Type that contains "oic.d.virtual". This allows Bridge Platforms to determine if a device is already being translated when multiple Bridge Platforms are present or Client to determine if corresponding Server is VOD or normal one.

Each Bridged Device shall be exposed as a separate Virtual OCF Server or Client, with its own OCF Endpoint, and set of mandatory Resources (as defined in ISO/IEC 30118-1:2018 and ISO/IEC 30118-2:2018).

Discovery of a VOD is the same as for an ordinary OCF Device; that is the VOD shall respond to multicast discovery requests. This allows platform-specific, device-specific, and resource-specific fields to all be preserved across translation.

The Bridge Introspection Device Data (IDD) provides information for the Resources exposed by the Bridge only. Each VOD shall expose an instance of "oic.wk.introspection" which provides a URL to an IDD for the specific VOD.

#### 5.3.2 Requirements specific to Symmetric Bridge Platforms

In addition to the requirements mentioned in 5.5.1, Symmetric Bridging shall satisfy following requirements.

The Bridge Platform shall check the protocol-independent UUID ("piid" in OCF) of each device and shall not advertise back into a Bridged Protocol a device originally seen via that Bridged Protocol. The Bridge Platform shall stop translating any Bridged Protocol device exposed in OCF via another Bridge Platform if the Bridge Platform sees the device via the Bridged Protocol. Similarly, the Bridge Platform shall not advertise an OCF Device back into OCF, and the Bridge Platform shall stop translating any OCF device exposed in the Bridged Protocol via another Bridge Platform if the Bridge Platform sees the device via OCF. These require that the Bridge Platform can determine when a device is already being translated. A VOD shall be indicated on the OCF Security Domain with a Device Type of "oic.d.virtual". How a Bridge Platform determines if a device is already being translated on a non-OCF Security Domain is described in the protocol-specific clauses (e.g. clause 6).

The Bridge Platform shall detect duplicate VODs (with the same protocol-independent UUID) present in a network and shall not create more than one corresponding virtual device as it translates those duplicate devices into another network.

### 5.4 VOD List

For maintenance purposes, the Bridge maintains a list of VODs. This list includes Virtual OCF Servers and Virtual OCF Clients created by the Bridge Platform and subsequently onboarded, as specified in ISO/IEC 30118-2:2018. A single instance of the Resource Type that defines the VOD list (see clause 13.4) shall be exposed by the Bridge. Please refer to ISO/IEC 30118-2:2018 for detailed operational requirements for the VOD list.