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**Information technology — Open  
Connectivity Foundation (OCF)  
Specification —**

**Part 3:  
Bridging specification**

*Technologies de l'information — Spécification de la Fondation pour la  
connectivité ouverte (Fondation OCF) —*

*Partie 3: Spécification de pontage*

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This document was prepared by the Open Connectivity Foundation (OCF) (as the OCF Bridging Specification, Version 1.0.0) and drafted in accordance with its editorial rules. It was adopted, under the JTC 1 PAS procedure, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

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## 1 Scope

This document specifies a framework for translation between OCF devices and other ecosystems, and specifies the behaviour of a translator that exposes AllJoyn producer applications to OCF clients, and exposes OCF servers to AllJoyn consumer applications. Translation of specific AllJoyn interfaces to or from specific OCF resource types is left to other specifications. Translation of protocols other than AllJoyn is left to a future version of this specification. This document provides generic requirements that apply unless overridden by a more specific document.

## 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.

AllJoyn About Interface Specification, *About Feature Interface Definitions*, Version 14.12

<https://allseenalliance.org/framework/documentation/learn/core/about-announcement/interface>

AllJoyn Configuration Interface Specification, *Configuration Interface Definition*, Version 14.12

<https://allseenalliance.org/framework/documentation/learn/core/configuration/interface>

D-Bus Specification, *D-Bus Specification*

<https://dbus.freedesktop.org/doc/dbus-specification.html>

IEEE 754, *IEEE Standard for Floating-Point Arithmetic*, August 2008

IETF RFC 4122, *A Universally Unique IDentifier (UUID) URN Namespace*, July 2005

<https://www.rfc-editor.org/info/rfc4122>

IETF RFC 4648, *The Base16, Base32, and Base64 Data Encodings*, October 2006

<https://www.rfc-editor.org/info/rfc4648>

IETF RFC 6973, *Privacy Considerations for Internet Protocols*, July 2013

<https://www.rfc-editor.org/info/rfc6973>

IETF RFC 7049, *Concise Binary Object Representation (CBOR)*, October 2013

<https://www.rfc-editor.org/info/rfc7049>

IETF RFC 7159, *The JavaScript Object Notation (JSON) Data Interchange Format*, March 2014

<https://www.rfc-editor.org/info/rfc7159>

JSON Schema Core, *JSON Schema: core definitions and terminology*, January 2013

<http://json-schema.org/latest/json-schema-core.html>

JSON Schema Validation, *JSON Schema: interactive and non interactive validation*, January 2013

<http://json-schema.org/latest/json-schema-validation.html>

JSON Hyper-Schema, *JSON Hyper-Schema: A Vocabulary for Hypermedia Annotation of JSON*, October 2016

<http://json-schema.org/latest/json-schema-hypermedia.html>

OCF 1.0 Core Specification, *Open Connectivity Foundation Core Specification*, Version 1.0

OCF Security Specification, *Open Connectivity Foundation Security Specification*, Version 1.0

OCF ASA Mapping, *OCF Resource to ASA Interface Mapping*, v0.3 candidate, July 2016  
[https://workspace.openconnectivity.org/apps/org/workgroup/smarthome\\_tg/download.php/6287/OCF\\_Resource\\_to\\_ASA\\_Interface\\_Mapping\\_v0.3\\_candidate.docx](https://workspace.openconnectivity.org/apps/org/workgroup/smarthome_tg/download.php/6287/OCF_Resource_to_ASA_Interface_Mapping_v0.3_candidate.docx)

OIC 1.1 Core Specification, *Open Interconnect Consortium Core Specification*, Version 1.1

RAML Specification, *Restful API modelling language*, Version 0.8.  
<https://github.com/raml-org/raml-spec/blob/master/versions/raml-08/raml-08.md>

OCF Resource Type Definitions, *API Definition Language for OCF Resource Type Definitions*, Release OCF-v1.0.0  
<https://github.com/openconnectivityfoundation/bridging>

### 3 Terms, definitions, symbols and abbreviations

#### 3.1 Terms and definitions

##### 3.1.1

##### **OCF Bridge Device**

An OCF Device that can represent devices that exist on the network but communicate using a Bridged Protocol rather than OCF protocols.

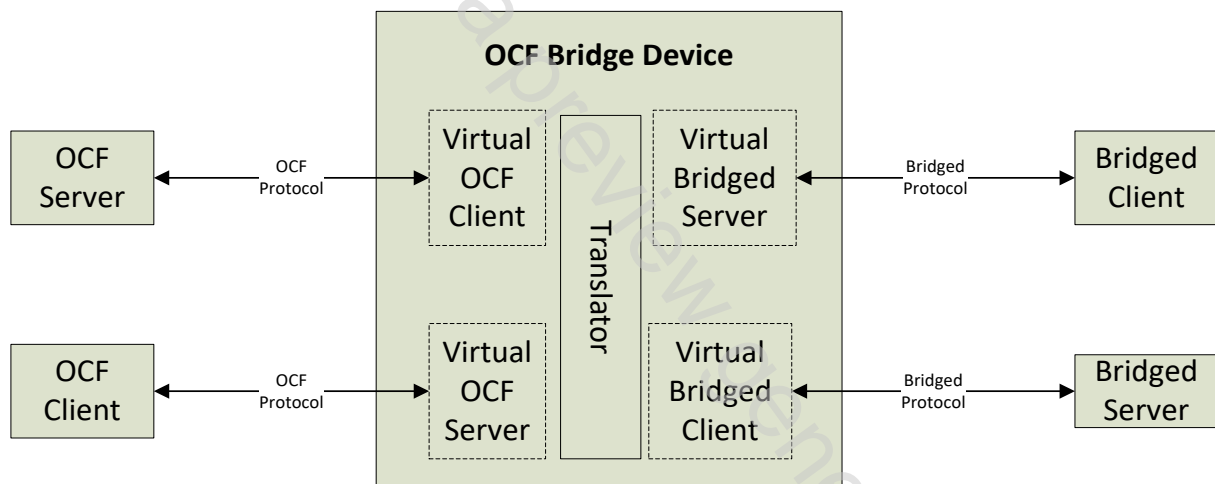


Figure 1. OCF Bridge Device Components

##### 3.1.2

##### **Bridged Protocol**

another protocol (e.g., AllJoyn) that is being translated to or from OCF protocols

##### 3.1.3

##### **Translator**

an OCF Bridge Device component that is responsible for translating to or from a specific Bridged Protocol. More than one translator can exist on the same OCF Bridge Device, for different Bridged Protocols.

##### 3.1.4

##### **OCF Client**

a logical entity that accesses an OCF Resource on an OCF Server, which might be a Virtual OCF Server exposed by the OCF Bridge Device.