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

**Part 5:
Smart home device specification**

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

Partie 5: Spécification des appareils pour applications domotiques





COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by the Open Connectivity Foundation (OCF) (as the OCF Smart Home Device 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*.

A list of all parts in the ISO/IEC 30118 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

CONTENTS

1	Scope	5
2	Normative references	5
3	Terms, definitions symbols and abbreviations	5
3.1	Terms and definitions	5
3.2	Symbols and abbreviations	6
3.3	Conventions	6
4	Document conventions and organization	6
4.1	Notation.....	6
4.2	Data types	7
4.3	Document structure	7
5	Operational Scenarios.....	8
5.1	Specification Version	8
6	Core Resource model.....	9
6.1	Introduction	9
6.2	Device Type	9
6.3	Profile of OCF Core Specification	9
7	Discovery	10
7.1	Endpoint Discovery.....	10
7.2	Resource Discovery.....	10
8	Security.....	10
9	Device Types	10
9.1	Standardized device types.....	10
9.2	Standardized enumeration values	14
9.3	Alphabetical list of standardized enumeration types.....	14
9.4	Standardized list of supported values for Mode Resource Type (oic.r.mode)	17
9.5	Standardized list of supported values for Operational State Resource Type (oic.r.operational.state).....	18
9.6	Standardized list of supported values for Consumable and Consumable Collection Resource Types (oic.r.consumable, oic.r.consumablecollection)	20
9.6	Camera Media Format (oic.r.media).....	21

Figures

Figure 1 Smart Home device building blocks. 8

Tables

Table 6-1 Required Resources for Smart Home Devices	9
Table 6-2 Required Properties in Resource	10
Table 9-1 Alphabetical list of device types (“rt”), including required Resources.....	11
Table 9-2 list of required oic.r.mode supported values per device type (“rt”)	17
Table 9-3 list of required oic.r.operational.state supported values per Device Type (“rt”)	18
Table 9-4 list of defined enumeration values for oic.r.consumable, oic.r.consumablecollection.....	21
Table 9-5 Recommended media profiles.....	22

1 Scope

The OCF Smart Home Device specification is an Application Profile specification.

The Smart Home Device specification specifies the Smart Home devices. The Smart Home Device definitions use Resource definitions from the OCF Resource Type Specification.

The Smart Home Device Specification is built on top of the Core Specification. The Core Specification specifies the core architecture, interfaces protocols and services to enable the implementation of profiles for IoT usages and ecosystems. The Core specification also defines the main architectural components of network connectivity, discovery, data transmission, device & service management and ID & security. The core architecture is scalable to support simple devices (constrained devices) and more capable devices (smart devices).

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.

OCF Resource Type Specification, *Open Connectivity Foundation Resource Type Specification*, Version 1.0.

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

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

<http://www.ietf.org/rfc/rfc7049.txt>

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

<http://www.ietf.org/rfc/rfc7159.txt>

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

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

IETF RFC 4566, *SDP: Session Description Protocol*, July 2006

<https://tools.ietf.org/html/rfc4566>