

# ISO/IEC 30118-6:2021-10 (E)

## Information technology - Open Connectivity Foundation (OCF) Specification - Part 6: Resource to AllJoyn interface mapping specification

---

<b>Contents</b>	<b>Page</b>
Foreword .....	vi
Introduction .....	vii
<b>1 Scope .....</b>	<b>1</b>
<b>2 Normative references .....</b>	<b>1</b>
<b>3 Terms and definitions .....</b>	<b>2</b>
<b>4 Document conventions and organization .....</b>	<b>2</b>
4.1 Conventions .....	2
4.2 Notation .....	3
<b>5 Theory of operation .....</b>	<b>3</b>
5.1 Interworking approach .....	3
5.2 Mapping syntax .....	4
5.2.1 Introduction .....	4
5.2.2 General .....	4
5.2.3 Value assignment .....	4
5.2.4 Property naming .....	4
5.2.5 Arrays .....	4
5.2.6 Default mapping .....	4
5.2.7 Conditional mapping .....	4
5.2.8 Loops .....	5
5.2.9 Method invocation .....	5
<b>6 AllJoyn translation .....</b>	<b>5</b>
6.1 Operational scenarios .....	5
6.2 Requirements specific to an AllJoyn bridging function .....	5
6.2.1 Introduction .....	5
6.2.2 Use of introspection .....	5
6.2.3 Stability and loss of data .....	6
6.2.4 Exposing AllJoyn producer devices to OCF clients .....	6
6.2.5 Exposing OCF resources to AllJoyn consumer applications .....	14
6.2.6 Security .....	21
6.3 On-the-fly translation from d-bus and OCF payloads .....	21
6.3.1 Introduction .....	21
6.3.2 Translation without aid of introspection .....	21
6.3.3 Translation with aid of introspection .....	27
<b>7 Device type mapping .....</b>	<b>32</b>
7.1 AllJoyn device types to OCF device types .....	32
7.2 OCF device types with no AllJoyn equivalent .....	32
<b>8 Resource to interface equivalence .....</b>	<b>33</b>
8.1 Introduction .....	33
8.2 Environment.CurrentAirQuality mapping .....	34
8.3 Environment.CurrentAirQualityLevel mapping .....	35
8.4 Operation.ClimateControlMode mapping .....	35
8.5 Operation.FanSpeedLevel mapping .....	35
8.6 Operation.HeatingZone mapping .....	35

8.7	Operation.OnOffStatus, Operation.OnControl, and Operation.OffControl mapping .....	35
8.8	Operation.OvenCyclePhase .....	35
9	Detailed mapping APIs .....	35
9.1	Introduction .....	35
9.2	Current air quality .....	36
9.2.1	Derived model .....	36
9.2.2	Property definition .....	36
9.2.3	Derived model definition .....	37
9.3	Current air quality level .....	38
9.3.1	Derived model .....	38
9.3.2	Property definition .....	38
9.3.3	Derived model definition .....	39
9.4	Current humidity .....	40
9.4.1	Derived model .....	40
9.4.2	Property definition .....	40
9.4.3	Derived model definition .....	41
9.5	Current temperature .....	41
9.5.1	Derived model .....	41
9.5.2	Property definition .....	41
9.5.3	Derived model definition .....	42
9.6	Target humidity .....	43
9.6.1	Derived model .....	43
9.6.2	Property definition .....	43
9.6.3	Derived model definition .....	44
9.7	Target temperature .....	45
9.7.1	Derived model .....	45
9.7.2	Property definition .....	45
9.7.3	Derived model definition .....	46
9.8	Audio volume .....	47
9.8.1	Derived model .....	47
9.8.2	Property definition .....	47
9.8.3	Derived model definition .....	48
9.9	Climate control mode .....	49
9.9.1	Derived model .....	49
9.9.2	Property definition .....	49
9.9.3	Derived model definition .....	49
9.10	Closed status .....	50
9.10.1	Derived model .....	50
9.10.2	Property definition .....	50
9.10.3	Derived model definition .....	51
9.11	Cycle control .....	51
9.11.1	Derived model .....	51
9.11.2	Property definition .....	51
9.11.3	Derived model definition .....	52
9.12	Fan speed level .....	53
9.12.1	Derived model .....	53
9.12.2	Property definition .....	53

9.12.3	Derived model definition.....	54
9.13	Heating zone.....	55
9.13.1	Derived model .....	55
9.13.2	Property definition .....	55
9.13.3	Derived model definition.....	55
9.14	HVAC fan mode .....	56
9.14.1	Derived model .....	56
9.14.2	Property definition .....	56
9.14.3	Derived model definition.....	57
9.15	On/Off control.....	58
9.15.1	Derived model .....	58
9.15.2	Property definition .....	58
9.15.3	Derived model definition.....	59
9.16	On off mapping.....	59
9.16.1	Derived model .....	59
9.16.2	Property definition .....	59
9.16.3	Derived model definition.....	60
9.17	Oven cycle phase .....	60
9.17.1	Derived model .....	60
9.17.2	Property definition .....	60
9.17.3	Derived model definition.....	61
10	Resource type definitions .....	62
10.1	List of resource types .....	62
10.2	AllJoynObject.....	62
10.2.1	Introduction.....	62
10.2.2	Example URI.....	62
10.2.3	Resource type .....	62
10.2.4	OpenAPI 2.0 definition .....	62
10.2.5	Property definition .....	66
10.2.6	CRUDN behaviour .....	67
10.3	SecureMode.....	67
10.3.1	Introduction.....	67
10.3.2	Example URI.....	67
10.3.3	Resource type .....	67
10.3.4	OpenAPI 2.0 definition .....	67
10.3.5	Property definition .....	69
10.3.6	CRUDN behaviour .....	69