ISO/IEC 30118-12:2021-10 (E)

Information technology - Open Connectivity Foundation (OCF) Specification - Part 12: Cloud security specification

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative references 1

3 Terms, definitions and abbreviated terms 2
3.1 Terms and definitions 2
3.2 Abbreviated terms 2

4 Document conventions and organization 3
4.1 Conventions 3
4.2 Notation 3
4.3 Data types 4

5 Security overview 4
5.1 Preamble 4
5.2 OCF Cloud architecture alignment with ISO IEC 17789 4
5.3 Device provisioning for OCF Cloud and Device registration overview 5
5.4 Credential overview 5

6 Device provisioning for OCF Cloud 5
6.1 OCF Cloud provisioning general 5
6.2 Device provisioning by Mediator 6

7 Device authentication with OCF Cloud 8
7.1 Device authentication with OCF Cloud general 8
7.2 Device connection with the OCF Cloud 8
7.3 Security considerations 9

8 Message integrity and confidentiality 10
8.1 OCF Cloud session semantics 10
8.2 Cipher suites for OCF Cloud Credentials 10

9 Security Resources 10
9.1 Account Resource 10
9.2 Account Session Resource 12
9.3 Account Token Refresh Resource 13

10 Security hardening guidelines 14
10.1 Security hardening guidelines general 14

Annex A (normative) Resource Type definitions 15

A.1 List of Resource Type definitions 15
A.2 Account Token 15
A.2.1 Introduction 15
A.2.2 Well-known URI 15
A.2.3 Resource type 15

A.2.4 OpenAPI 2.0 definition 15
A.2.5 Property definition 18
A.2.6 CRUDN behaviour 19
A.3 Session 20
A.3.1 Introduction 20
A.3.2 Well-known URI 20
A.3.3 Resource type 20
A.3.4 OpenAPI 2.0 definition 20
A.3.5 Property definition 22
A.3.6 CRUDN behaviour 23
A.4 Token Refresh 23
A.4.1 Introduction 23
A.4.2 Well-known URI 23
A.4.3 Resource type 23
A.4.4 OpenAPI 2.0 definition 24
A.4.5 Property definition 26
A.4.6 CRUDN behaviour 27