

ISO/IEC 10192-4-2:2024-09 (E)

Information technology - Home electronic system (HES) interfaces - Part 4-2: Common user interface and cluster-to-cluster interface to support interworking among home cluster systems - Interfaces, services and objects

Contents	Page
FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	8
2 Normative references	8
3 Terms, definitions, and abbreviated terms	9
3.1 Terms and definitions.....	9
3.2 Abbreviated terms.....	10
4 Conformance.....	11
5 HES components for common user interface	11
6 Common user interface.....	13
7 CUI operational information	13
7.1 Usage	13
7.2 CUI operational information composition.....	15
7.3 Delivery of CUI operational information.....	15
7.4 Interoperability of heterogeneous CUI operational information	16
7.5 CUI selection and resultant actions for handling devices.....	16
7.5.1 General	16
7.5.2 Acquisition of user's set of devices	17
7.5.3 Synchronization of user devices	17
7.5.4 Handling of request and response for user devices.....	17
8 Secure C2C connection	17
9 C2C authorization.....	18
9.1 General.....	18
9.2 User identity federation.....	18
9.3 C2C authorization procedure	21
10 C2C interface	22
11 CUI service.....	22
12 C2C interworking application ISEE group	22
12.1 General.....	22
12.2 C2C authorization controller service.....	23
12.3 C2C authorization processor service.....	23
12.4 C2C controller service.....	23
12.5 C2C processor service.....	24
12.6 Other services	24
12.7 HAN interface module	25
13 Privacy, security, and safety considerations	25
Bibliography.....	26
Figure 1 – Core interoperability and HES standards.....	7

Figure 2 – HES gateway applications standards.....	7
Figure 3 – CUI components of alternative #1: common user interface in a cluster	12
Figure 4 – CUI components of alternative #2: common user interface as a separate device.....	12
Figure 5 – CUI components of alternative #3: common user interface in a service module.....	12
Figure 6 – Translation between CUI operational information and interactive media	13
Figure 7 – Interactive visual and touch media	14
Figure 8 – Interactive speaker and voice media	14
Figure 9 – Interoperability of heterogenous CUI systems	16
Figure 10 – TLS based C2C secure connection	18
Figure 11 – Configuration of user identities and devices	19
Figure 12 – Configuration of user identity federation table	21
Figure 13 – C2C authorization procedure.....	22
Figure 14 – Structure of C2C interworking application ISEE group.....	23
Figure 15 – Address referencing of binding map service to a device in a cluster	24
Table 1 – Correlation between roles in OAuth 2.0 and CUI components.....	21