

ISO/IEC 29341-26-11:2017-09 (E)

Information technology - UPnP Device Architecture - Part 26-11: Telephony device control protocol - Level 2 - Media management service

| Contents | | Page |
|-----------------|--|-------------|
| 1 | Scope | v |
| 2 | Normative references | 1 |
| 3 | Terms, definitions, symbols and abbreviated terms | 2 |
| 4 | Notations and conventions | 4 |
| 4.1 | Text conventions | 4 |
| 4.2 | Data Types | 4 |
| 4.3 | Vendor-defined Extensions | 4 |
| 5 | Service Modeling Definitions | 4 |
| 5.1 | Service Type | 4 |
| 5.2 | MediaManagement Service Architecture | 4 |
| 5.3 | State Variables | 5 |
| 5.3.1 | State Variable Overview | 5 |
| 5.3.2 | MediaSessionInfo | 5 |
| 5.3.3 | A_ARG_TYPE_MediaSessionID | 7 |
| 5.3.4 | A_ARG_TYPE_MediaCapabilityInfo | 7 |
| 5.3.5 | A_ARG_TYPE_MediaSessionInfoList | 8 |
| 5.4 | Eventing and Moderation | 9 |
| 5.4.1 | Eventing of MediaSessionInfo | 9 |
| 5.5 | Actions | 9 |
| 5.5.1 | GetMediaCapabilities() | 9 |
| 5.5.2 | StartMediaSession() | 11 |
| 5.5.3 | StopMediaSession() | 12 |
| 5.5.4 | ModifyMediaSession() | 13 |
| 5.5.5 | GetMediaSessionInfo() | 15 |
| 5.5.6 | Error Code Summary | 16 |
| 5.6 | Service Behavioral Model | 16 |
| 5.6.1 | State Diagrams | 16 |
| 6 | XML Service Description | 17 |
| | Annex A (normative) XML Schema | 20 |
| | Annex B (informative) Theory of Operation | 22 |
| | Annex C (informative) Sequence Examples | 28 |
| | Annex D (informative) Bibliography | 185 |
| | Figure 1 -- Relationship among Media Stream, Media Session and Media Session ID | 3 |
| | Figure 2 -- Architecture of the MediaManagement Service | 5 |
| | Figure 3 -- State diagrams of the MediaManagement service | 17 |
| | Figure B.1 -- Flow basics for creating an outgoing Call | 23 |
| | Figure B.2 -- Flow basics for accpeting an incoming Call | 25 |

| | |
|---|-----|
| Figure B.3 -- Flow basics for modifying an ongoing Call | 27 |
| Figure C.4 -- Create a Call | 29 |
| Figure C.5 -- Terminate a Call | 44 |
| Figure C.6 -- Reject an incoming Call | 49 |
| Figure C.7 -- Cancel an outgoing Call | 52 |
| Figure C.8 -- Cancel an outgoing Call (But the specified CallID does not exist.) | 55 |
| Figure C.9 -- Cancel an outgoing Call (But the StopCall() action is invoked at invalid timing.) | 56 |
| Figure C.10 -- Get MediaSessionInfo and CallInfo during the Call | 57 |
| Figure C.11 -- Create an outgoing Call using multiple TCs (Case 1) | 61 |
| Figure C.12 -- Create an outgoing Call using multiple TCs (Case 2) | 75 |
| Figure C.13 -- Accept an incoming Call using multiple TCs (Case 1) | 80 |
| Figure C.14 -- Accept an incoming Call using multiple TCs (Case 2) | 92 |
| Figure C.15 -- Add TC during a Call (Create a modification request) | 97 |
| Figure C.16 -- Add TC during a Call (Accept a modification request) | 106 |
| Figure C.17 -- Remove TC during a Call (Create a modification request) | 114 |
| Figure C.18 -- Remove TC during a Call (Accept a modification request) | 120 |
| Figure C.19 -- Change TC during a Call | 127 |
| Figure C.20 -- Modify Media Session during a Call | 136 |
| Figure C.21 -- Initiate a Call | 144 |
| Figure C.22 -- Create an outgoing Call (Monopolization Mode Call(PHONE-TelCP)) | 147 |
| Figure C.23 -- Terminate a Call (But the specified TelCP is not authorized.) | 162 |
| Figure C.24 -- Cancel an outgoing Call (But the specified TelCP is not authorized.) | 164 |
| Figure C.25 -- Change TelCP which Monopolize the Call | 165 |
| Figure C.26 -- Create a Call with TC-Based and TS-Based Media Handlings | 168 |
| Table 1 -- State Variables | 5 |
| Table 2 -- Allowed values for mediaSessionStatus | 6 |
| Table 3 -- Allowed values for reason and the corresponding status of Media Session | 6 |
| Table 4 -- Allowed values for format | 7 |
| Table 5 -- Event Moderation | 9 |
| Table 6 -- Actions | 9 |
| Table 7 -- Arguments for GetMediaCapabilities() | 9 |

| | |
|--|-----------|
| Table 8 -- Error Codes for GetMediaCapabilities() | 10 |
| Table 9 -- Arguments for StartMediaSession() | 11 |
| Table 10 -- Error Codes for StartMediaSession() | 12 |
| Table 11 -- Arguments for StopMediaSession() | 12 |
| Table 12 -- Error Codes for StopMediaSession() | 13 |
| Table 13 -- Arguments for ModifyMediaSession() | 13 |
| Table 14 -- Error Codes for ModifyMediaSession() | 14 |
| Table 15 -- Arguments for GetMediaSessionInfo() | 15 |
| Table 16 -- Error Codes for GetMediaSessionInfo() | 15 |
| Table 17 -- Error Code Summary | 16 |