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Contents

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

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1 Scope

The present document specifies the configuration management documents and protocols needed to support Mission critical service online configuration over the CSC-4 and CSC-5 reference points and the procedures to support Mission critical service offline configuration over the CSC-11 and CSC-12 reference points.

Mission critical services include:

- Mission Critical Push To Talk (MCPTT);
- Mission Critical Video (MCVideo); and
- Mission Critical Data (MCData).

Configuration management documents defined in the present document includes:

- MCS UE initial configuration document;
- MCPTT UE configuration document;
- MCPTT user profile configuration document;
- MCPTT service configuration document;
- MCVideo UE configuration document;
- MCVideo user profile configuration document;
- MCVideo service configuration document;
- MCData UE configuration document;
- MCData user profile configuration document; and
- MCData service configuration document.

Mission critical services are services that require preferential handling compared to normal telecommunication services, e.g. in support of police or fire brigade.

The Mission critical services can be used for public safety applications and also for general commercial applications (e.g., utility companies and railways).

The present document is applicable to an MCS UE supporting the configuration management client functionality, to application servers supporting the configuration management server functionality, and to application servers supporting the:

- MCPTT server functionality;
- MCVideo server functionality; or
- MCData server functionality.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] OMA OMA-TS-XDM_Core-V2_1-20120403-A: "XML Document Management (XDM) Specification".

[3] 3GPP TS 22.179: "Mission Critical Push to Talk (MCPTT) over LTE; Stage 1".

[4] 3GPP TS 24.483: "Mission Critical Services (MCS) Management Object (MO)".

[5] 3GPP TS 24.481: "Mission Critical Services (MCS) group management Protocol specification".

[6] 3GPP TS 24.482: "Mission Critical Services (MCS) identity management Protocol specification".

[7] 3GPP TS 29.283: "Diameter Data Management Applications".

[8] 3GPP TS 23.379: "Functional architecture and information flows to support mission critical push to talk (MCPTT); Stage 2".

[8A] 3GPP TS 23.280: "Common functional architecture to support mission critical services; Stage 2".

[9] 3GPP TS 24.379: "Mission Critical Push to Talk (MCPTT) call control Protocol specification".

[10] 3GPP TS 24.380: "Mission Critical Push to Talk (MCPTT) media plane control Protocol specification".

[11] IETF RFC 5875: "An Extensible Markup Language (XML) Configuration Access Protocol (XCAP) Diff Event Package".

[12] 3GPP TS 24.333: "Proximity-services (ProSe) Management Objects (MO)".

[13] IETF RFC 4745: "Common Policy: A Document Format for Expressing Privacy Preferences".

[14] IETF RFC 4825: "The Extensible Markup Language (XML) Configuration Access Protocol (XCAP)".

[15] Void.

[16] 3GPP TS 23.003: "Numbering, addressing and identification".

[17] OMA OMA-TS-XDM_Group-V1_1-20120403-A: "Group XDM Specification".

[18] 3GPP TS 23.303: "Proximity-based Services (ProSe); Stage 2".

[19] 3GPP TS 24.334: "Proximity-services (ProSe) User Equipment (UE) to ProSe function protocol aspects; Stage 3".

[20] IETF RFC 8101 "IANA Registration of New Session Initiation Protocol (SIP) Resource-Priority Namespace for Mission Critical Push To Talk service".

[21] IETF RFC 3986: "Uniform Resource Identifier (URI): Generic Syntax".

[22] 3GPP TS 24.229: "IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3".

[23] IETF RFC 6050: "A Session Initiation Protocol (SIP) Extension for the Identification of Services".

[24] 3GPP TS 23.282: "Functional architecture and information flows to support Mission Critical Data (MCData); Stage 2";

[25] 3GPP TS 24.282: "Mission Critical Data (MCData) signalling control Protocol specification".

[26] 3GPP TS 24.582: "Mission Critical Data (MCData) media plane control Protocol specification".

[27] 3GPP TS 23.281: "Functional architecture and information flows to support Mission Critical Video (MCVideo); Stage 2".

[28] 3GPP TS 24.281: "Mission Critical Video (MCVideo) signalling control Protocol specification".

[29] 3GPP TS 24.581: "Mission Critical Video (MCVideo) media plane control Protocol specification".

[30] 3GPP TS 22.280: "Mission Critical Services Common Requirements (MCCoRe) Stage 1".

[31] 3GPP TS 23.032: "Universal Geographical Area Description (GAD)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

MCS network: A network infrastructure that supports the MCS.
Offline Configuration: Configuration of the MCS UE without connectivity with any MCS network. Configuration of the MCS UE is achieved using some external device (e.g. a laptop) with some kind of IP connectivity with the MCS UE (e.g. over USB, WLAN, Bluetooth, etc).
Off-network operation: An MCS UE operating without connectivity to an MCS network (not even via a relay).
Online Configuration: Configuration of the MCS UE using the MCS network. Configuration of the MCS UE is achieved using the network connectivity with the MCS UE (e.g. over LTE).
On-network operation: An MCS UE operating with connectivity to an MCS network including when network connectivity is achieved via a relay.

For the purposes of the present document, the following terms and definitions given in OMA OMA-TS-XDM_Core-V2_1 [2] apply:

XDMC
XDMS

For the purposes of the present document, the following terms and definitions given in 3GPP TS 22.179 [3] apply:

MCPTT administrator
MCPTT UE
MCPTT User Profile
MCPTT service
Mission Critical Push To Talk

For the purpose of the present document, the following terms and definitions given in 3GPP TS 23.379 [8] apply:

Pre-selected MCPTT user profile

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

AUID	Application Unique IDentity
CMC	Configuration Management Client
CMS	Configuration Management Server
DM	Device Management
E-UTRAN	Evolved Universal Terrestrial Radio Access Network
FQDN	Fully Qualified Domain Name
GC	General Client

HTTP	HyperText Transfer Protocol
HTTPS	HyperText Transfer Protocol Secure
IANA	Internet Assigned Numbers Authority
IETF	Internet Engineering Task Force
IMEI	International Mobile Equipment Identity
IP	Internet Protocol
MC	Mission Critical
MCPTT	Mission Critical Push To Talk
MCS	Mission Critical Service
MIME	Multi-Purpose Internet Mail Extensions
MO	Management Object
OMA	Open Mobile Alliance
ProSe	Proximity Services
RFC	Request For Comments
SIP	Session Initiation Protocol
SNR	Serial Number
TAC	Type Allocation Code
UE	User Equipment
URI	Uniform Resource Identifier
URN	Uniform Resource Name
USB	Universal Serial Bus
WLAN	Wireless Local Area Network
XCAP	XML Configuration Access Protocol
XDM	XML Document Management
XDMC	XML Document Management Client
XDMS	XML Document Management Server
XML	eXtensible Markup Language
XUI	XCAP Unique Identifier

4 General

4.1 MCS service administrator configuration

4.1.1 Common configuration

An MCS service administrator can, using an MCS UE configure the:

- MCS UE initial configuration document;

The format of the MCS UE initial configuration document for configuration by an MCS service administrator is defined in subclause 7.2.

To create a new configuration document on the configuration management server, the MCS UE uses the procedures in subclause 6.3.2.2.

NOTE: If the MCS administrator includes a <Default-user-profile> element in the MCS UE initial configuration document as defined in subclause 7.2.2.1, at least one instance of an MCS user profile configuration document needs to first be created on the configuration management server, containing the "XUI-URI" attribute and "user-profile-index" attribute (as defined in subclause 8.3.2.1) that are included in the <Default-user-profile> element.

To update an existing configuration document on the configuration management server, the MCS UE uses the procedures in subclause 6.3.4.2.

To delete an existing configuration document on the configuration management server, the MCS UE uses the procedures in subclause 6.3.5.2.

To create a new MC group document on the configuration management server, the MCS UE uses the procedures in 3GPP TS 24.481 [5].

To update an existing MCPTT group document on the configuration management server, the MCS UE uses the procedures in 3GPP TS 24.481 [5].

To delete an existing MC group document on the configuration management server, the MCS UE uses the procedures in 3GPP TS 24.481 [5].

4.1.2 MCPTT configuration

An MCPTT service administrator can, using an MCPTT UE configure the:

- MCPTT UE configuration document;
- MCPTT user profile configuration document;
- MCPTT service configuration document; and
- MCPTT group document.

The format of the MCPTT UE configuration document is defined in subclause 8.2.

The format of the MCPTT user profile configuration document is defined in subclause 8.3.

The format of the MCPTT service configuration document is defined in subclause 8.4.

The format of the MCPTT group document is defined in 3GPP TS 24.481 [5].

4.1.3 MCVideo configuration

An MCVideo service administrator can, using an MCVideo UE configure the:

- MCVideo UE configuration document;
- MCVideo user profile configuration document;
- MCVideo service configuration document; and
- MCVideo related group configuration data in the MCS group document.

The format of the MCVideo UE configuration document is defined in subclause 9.2.

The format of the MCVideo user profile configuration document is defined in subclause 9.3.

The format of the MCVideo service configuration document is defined in subclause 9.4.

The format of the MCVideo related group configuration data in the MCS group document is defined in 3GPP TS 24.481 [5].

4.1.4 MCData configuration

An MCData service administrator can, using an MCData UE configure the:

- MCData UE configuration document;
- MCData user profile configuration document;
- MCData service configuration document; and
- MCData related group configuration data in the MCS group document.

The format of the MCData UE configuration document is defined in subclause 10.2.

The format of the MCData user profile configuration document is defined in subclause 10.3.

The format of the MCData service configuration document is defined in subclause 10.4.