**3GPP TSG-CT WG1 Meeting #133-bis-eC1-220030**

**E-meeting, 17-21 January 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.282** | **CR** | **0278** | **rev** | **-** | **Current version:** | **17.5.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Retrieve file to store locally | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | AT&T, Samsung | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eMCData3 | | | | |  | ***Date:*** | | | 2022-01-10 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) ... Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | As per TS 23.282 clauses 7.13.3.20.2 & 7.13.3.1.41 “MCData retrieve file to store locally request” operation can be invoked by the message store client which would lead to having the MCData message store retrieving the file from the MCData content server and store locally while also updating the stored object with the URL referencing the file content stored in the MCData message store. Accordingly, stage 3, TS 24.282, needs to be updated to address the newly introduced feature in stage 2 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Subsclause 21.2.X “Retrieve file to store locally” procedure is specified to address the newly introduced feature in stage 2. Also added a new reference to clause 2. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Stage 3 spec TS 24.282 won’t be able to support the newly introduced feature in stage 2, TS 23.282 (clauses 7.13.3.20.2 & 7.13.3.1.41). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 2, 21.2.X (NEW), 21.2.X.1 (NEW), 21.2.X.2 (NEW) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* \* \* \* \* FIRST CHANGE \* \* \* \* \* \* \*

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

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

[4] IETF RFC 3261 (June 2002): "SIP: Session Initiation Protocol".

[5] 3GPP TS 24.229: "IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3".

[6] IETF RFC 3428 (December 2002): "Session Initiation Protocol (SIP) Extension for Instant Messaging".

[7] IETF RFC 6050 (November 2010): "A Session Initiation Protocol (SIP) Extension for the Identification of Services".

[8] IETF RFC 3841 (August 2004): "Caller Preferences for the Session Initiation Protocol (SIP)".

[9] IETF RFC 4826 (May 2007): "Extensible Markup Language (XML) Formats for Representing Resource Lists".

[10] 3GPP TS 24.379: "Mission Critical Push To Talk (MCPTT) call control Protocol specification".

[11] 3GPP TS 24.481: "Mission Critical Services (MCS) group management Protocol specification".

[12] 3GPP TS 24.484: "Mission Critical Services (MCS) configuration management Protocol specification".

[13] IETF RFC 4483 (May 2006): "A Mechanism for Content Indirection in Session Initiation Protocol (SIP) Messages.

[14] IETF RFC 4122 (July 2005): "A Universally Unique IDentifier (UUID) URN Namespace".

[15] 3GPP TS 24.582: "Mission Critical Data (MCData) media plane control Protocol specification".

[16] IETF RFC 3840 (August 2004): "Indicating User Agent Capabilities in the Session Initiation Protocol (SIP)".

[17] IETF RFC 4975 (September 2007): "The Message Session Relay Protocol (MSRP)".

[18] IETF RFC 5366 (October 2008): "Conference Establishment Using Request-Contained Lists in the Session Initiation Protocol (SIP)".

[19] IETF RFC 6135 (February 2011): "An Alternative Connection Model for the Message Session Relay Protocol (MSRP) ".

[20] IETF RFC 6714 (August 2012): "Connection Establishment for Media Anchoring (CEMA) for the Message Session Relay Protocol (MSRP)".

[21] IETF RFC 6086 (January 2011): "Session Initiation Protocol (SIP) INFO Method and Package Framework".

[22] IETF RFC 7230: "Hypertext Transfer Protocol (HTTP/1.1): Message Syntax and Routing".

[23] IETF RFC 7231: "Hypertext Transfer Protocol (HTTP/1.1): Semantics and Content".

[24] 3GPP TS 24.482: "Mission Critical Services (MCS) identity management Protocol specification.

[25] 3GPP TS 24.334: "Proximity-services (ProSe) User Equipment (UE) to Proximity-services (ProSe) Function Protocol aspects; Stage 3".

[26] 3GPP TS 33.180: "Security of the Mission Critical Service".

[27] void

[28] W3C: "XML Encryption Syntax and Processing Version 1.1", <https://www.w3.org/TR/xmlenc-core1/>.

[29] W3C: "XML Signature Syntax and Processing (Second Edition)", <http://www.w3.org/TR/xmldsig-core/>.

[30] IETF RFC 4648 (October 2006): "The Base16, Base32, and Base64 Data Encodings".

[31] 3GPP TS 23.003: "Numbering, addressing and identification".

[32] IETF RFC 2045 (November 1996): "Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies".

[33] IETF RFC 2392 (August 1998): "Content-ID and Message-ID Uniform Resource Locators".

[34] IETF RFC 3903 (October 2004): "Session Initiation Protocol (SIP) Extension for Event State Publication".

[35] IETF RFC 4354 (January 2006): "A Session Initiation Protocol (SIP) Event Package and Data Format for Various Settings in Support for the Push-to-Talk over Cellular (PoC) Service".

[36] IETF RFC 6665 (July 2012): "SIP-Specific Event Notification".

[37] 3GPP TS 29.283: "Diameter Data Management Applications".

[38] IETF RFC 4028 (April 2005): "Session Timers in the Session Initiation Protocol (SIP)".

[39] IETF RFC 3856 (August 2004): "A Presence Event Package for the Session Initiation Protocol (SIP)".

[40] IETF RFC 3863 (August 2004): "Presence Information Data Format (PIDF)".

[41] IETF RFC 4661 (September 2006): "An Extensible Markup Language (XML)-Based Format for Event Notification Filtering".

[42] 3GPP TS 24.483: "Mission Critical Services (MCS) Management Object (MO)".

[43] 3GPP TS 24.301: "Non-Access-Stratum (NAS) protocol for Evolved Packet System (EPS); Stage 3".

[44] IETF RFC 5627 (October 2009): "Obtaining and Using Globally Routable User Agent URIs (GRUUs) in the Session Initiation Protocol (SIP)".

[45] IETF RFC 4567 (July 2006): "Key Management Extensions for Session Description Protocol (SDP) and Real Time Streaming Protocol (RTSP)".

[46] IETF RFC 3986 (January 2005): "Uniform Resource Identifier (URI): Generic Syntax".

[47] 3GPP TS 23.032: "Universal Geographical Area Description (GAD)".

[48] 3GPP TS 29.582: "Mission Critical Data (MCData) signalling control interworking with LMR systems; Protocol specification".

[49] 3GPP TS 29.214: "Policy and Charging Control over Rx reference point".

[50] IETF RFC 5245 (April 2010): "Interactive Connectivity Establishment (ICE): A Protocol for Network Address Translator (NAT) Traversal for Offer Answer Protocols".

[51] IETF RFC 3515 (April 2003): "The Session Initiation Protocol (SIP) Refer Method".

[52] IETF RFC 7647 (September 2015): "Clarifications for the use of REFER with RFC6665".

[53] IETF RFC 4488 (May 2006): "Suppression of Session Initiation Protocol (SIP) REFER Method Implicit Subscription".

[54] IETF RFC 4538 (June 2006): "Request Authorization through Dialog Identification in the Session Initiation Protocol (SIP)".

[55] IETF RFC 6509 (February 2012): "MIKEY-SAKKE: Sakai-Kasahara Key Encryption in Multimedia Internet KEYing (MIKEY)".

[56] 3GPP TS 23.468: "Group Communication System Enablers for LTE (GCSE\_LTE); Stage 2".

[57] 3GPP TS 29.468: "Group Communication System Enablers for LTE (GCSE\_LTE); MB2 reference point; Stage 3".

[58] Void.

[59] IETF RFC 5761 (April 2010): "Multiplexing RTP Data and Control Packets on a Single Port".

[60] IETF RFC 5795 (March 2010): "The RObust Header Compression (ROHC) Framework".

[61] IETF RFC 3095 (July 2001): "RObust Header Compression (ROHC): Framework and four profiles: RTP, UDP, ESP, and uncompressed".

[62] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core network protocols; Stage 3".

[63] 3GPP TS 23.203: "Policy and charging control architecture".

[64] 3GPP TS 29.061: "Interworking between the Public Land Mobile Network (PLMN) supporting packet based services and Packet Data Networks (PDN)".

[65] 3GPP TS 29.199-09: "Open Service Access (OSA); Parlay X web services; Part 9: Terminal location".

[66] OMA-TS-REST\_NetAPI\_NMS-V1\_0-20190528-C: "RESTful Network API for Network Message Storage".

[67] IETF RFC 8101 (March 2017): "IANA Registration of New Session Initiation Protocol (SIP) Resource-Priority Namespace for Mission Critical Push To Talk Service".

[68] 3GPP TS 22.280: "Mission Critical Services Common Requirements (MCCoRe); Stage 1".

[69] IETF RFC 5547: "A Session Description Protocol (SDP) Offer/Answer Mechanism to Enable File Transfer".

[70] IETF RFC 1738: "Uniform Resource Locators (URL)".

[71] IETF RFC 4566 (July 2006): "SDP: Session Description Protocol".

[72] IETF RFC 5888 (June 2010): "The Session Description Protocol (SDP) Grouping Framework".

[73] ISO 8601 (2019): "Date and Time – Representations for Information Exchange".

[74] IETF RFC 4412 (February 2006): "Communications Resource Priority for the Session Initiation Protocol (SIP)".

[75] IETF RFC 5234 (January 2008): "Augmented BNF for Syntax Specifications: ABNF".

[YY] 3GPP TS 29.501: "5G System; Principles and Guidelines for Services Definition; Stage 3".

\* \* \* \* \* \* \* NEXT CHANGE \* \* \* \* \* \* \*

### 21.2.X Retrieve file to store locally procedure

#### 21.2.X.1 Message store client procedures

To request the MCData message store to retrieve a file associated with a given object Id from the MCData content server and store locally, the message store client, acting as an HTTP client:

1) shall generate an HTTP POST request as a custom operation associated with a stored object resource as described in clause 6.2 of OMA-TS-REST\_NetAPI\_NMS-V1\_0-20190528-C [66] where:

a) the request URI shall be set to: //{serverRoot}/nms/{apiVersion}/{storeName}/{boxId}/objects/{objectId}/retrieve

NOTE: The above request URI states, the custom operation "retrieve" is performed on an object resource identified by the {objectId}. For further details on custom operations see clauses 4.4.2, 4.6.1.2 and C.4 in 3GPP TS 29.501 [YY]).

b) the Host header field shall be set to a hostname identifying the message store function; and

c) a valid MCData access token shall be included in the HTTP Authorization header; and

2) shall send the HTTP POST request towards the message store function with the request containing an "Empty" data structure as described in clause 5.3.2.35 of OMA-TS-REST\_NetAPI\_NMS-V1\_0-20190528-C [66].

Upon receipt of an HTTP response, the message store client should follow the procedure as described in clause 6.2.2 of OMA-TS-REST\_NetAPI\_NMS-V1\_0-20190528-C [66].

#### 21.2.X.2 Message store function procedures

Upon receipt of the HTTP POST request from the client, as per clause 21.2.X.1, the message store function acting as an HTTP server:

1) shall validate the MCData access token (with "Bearer" authentication scheme) received in the Authorization header of the request as specified in 3GPP TS 24.482 [24];

2) if validation is successful then

a) shall process the HTTP POST request as follows:

i) shall locate the object as identified by the {objectId} in the request URI

ii) shall use the URL value of the "href" attribute within the "payloadPart" IE of the object (see clause 5.3.2.1 of OMA-TS-REST\_NetAPI\_NMS-V1\_0-20190528-C [66]) and fetch the file from the MCData content server as described in clause 6.7, provided that the URL is pointing to a file in the MCData content server; and

iii) shall store the file locally and update the "href" attribute value of the "payloadPart" IE accordingly (i.e. to point to the locally stored file) provided the file was fetched from the MCData content server; and

3) shall generate and send an HTTP response, towards the message store client indicating the result of the operation as described in clause 6.2.2 of OMA-TS-REST\_NetAPI\_NMS-V1\_0-20190528-C [66] with the following clarifications:

a) if the URL value of the "href" attribute within the "payloadPart" IE of the object was already pointing to a file stored locally in the MCData message store (i.e. the MCData message store did not need to fetch the file from the MCData content server), an HTTP 200 OK response containing the "Object" data structure as defined in clause 5.3.2.1 of OMA-TS-REST\_NetAPI\_NMS-V1\_0-20190528-C [66] shall be returned; and

b) if the object is updated (i.e. "href" value of the "payloadPart" IE changed), a "changedObject" event notification (see clause 21.2.16) shall be emitted if there exists a subscription (see clause  21.2.12A) to such an event from a client.

NOTE: Returning an HTTP 200 OK response when the request is for fetching a file which has already been fetched and stored locally in the MCData message store allows proper processing of retried/duplicated requests (e.g. client retrying the same request if the response to its previous request has not arrived due to communication failure).

\* \* \* \* \* \* \* END CHANGES \* \* \* \* \* \* \*