**3GPP TSG-SA WG6 Meeting #37-e S6-200639**

**e-meeting, 14th – 26th May 2020 (revision of S6-xxxxxx)**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.280** | **CR** | **0251** | **rev** | **-** | **Current version:** | **17.2.0** |  |
|  | | | | | | | | |
| *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:*** | Configuration location history reporting | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | BDBOS, BMWi | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | enh3MCPTT | | | | |  | ***Date:*** | | | 2020-05-08 |
|  |  | | | |  | |  | | |  |
| ***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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Currently existing information flows and procedures do not support the on-demand request or automatic transmission of locally stored, but triggered location reports of an MC service user after returning from off-network operation. The configuration of the off-network location reporting is required, e.g. to parametrize off-network trigger criteria.  [R-5.11-009] in 3GPP TS 22.280 in clause 5.11 for on-network and off-network location reports based on triggered events.  Clause 7.1 in 3GPP TS 22.280 describes in general that MC services available during off-network are functional comparable to MC services during on-network and this includes location management, as an essential feature of MC communication. While triggered location reports are available during on-network operation, the same or modified off-network triggers allow such MC service continuity while off-network operation. The location reports provided after returning to on-network operation.  Functional support for use case #5, solutions #6, #7 and #8 discussed in 3GPP TR 23.744. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Updated information flow for the configuration of off-network trigger criteria. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The operational analysis of location information triggered during off-network operation cannot be included into operative-tactical decisions after returning to on-network operation. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 10.9.1, 10.9.2.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \*

## 3.3 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].

APN Access Point Name

BM-SC Broadcast Multicast Service Centre

CMS Configuration Management Server

CSC Common Services Core

CSCF Call Server Control Function

DPF Direct Provisioning Function

E-UTRAN Evolved Universal Terrestrial Radio Access Network

EPC Evolved Packet Core

EPS Evolved Packet System

FEC Forward Error Correction

GBR Guaranteed Bit Rate

GCS AS Group Communication Service Application Server

GCSE\_LTE Group Communication Service Enabler over LTE

GMS Group Management Server

GRUU Globally Routable User agent URI

HSS Home Subscriber Server

HTTP Hyper Text Transfer Protocol

I-CSCF Interrogating CSCF

IARI IMS Application Reference Identifier

ICE Interactive Connectivity Establishment

ICSI IMS Communication Service Identifier

IdMS Identity Management Server

IM CN IP Multimedia Core Network

IMPI IP Multimedia Private Identity

IMPU IP Multimedia PUblic identity

IMS IP Multimedia Subsystem

KMS Key Management Server

LCS Location Services

LMC Location Management Client

LMS Location Management Server

MBMS Multimedia Broadcast and Multicast Service

MBSFN Multimedia Broadcast multicast service Single Frequency Network

MC Mission Critical

MC ID Mission Critical user identity

MCPTT AS MCPTT Application Server

MCPTT ID MCPTT user identity

NAT Network Address Translation

P-CSCF Proxy CSCF

PLMN Public Land Mobile Network

ProSe Proximity-based Services

PSI Public Service Identity

QoS Quality of Service

RAN Radio Access Network

RF Radio Frequency

ROHC RObust Header Compression

S-CSCF Serving CSCF

SIP Session Initiated Protocol

SSL Secure Sockets Layer

TLS Transport Layer Security

TMGI Temporary Mobile Group Identity

UDC User Data Convergence

UDR User Data Repository

USB Universal Serial Bus

URI Uniform Resource Identifier

WLAN Wireless Local Area Network

For the purposes of the present document, the abbreviations given in 3GPP TS 22.280 [3] apply

**MCData**

**MCPTT**

**MCVideo**

\* \* \* Next Change \* \* \* \*

10.9 Location management (on-network)

10.9.1 General

Location information of MC service user shall be provided by the location management client to the location management server. The location information reporting triggers are based on the location reporting configuration. Different type of location information can be provided.

The location management client can be configured to store location information while not reporting location information to the location management server. The configured location management client is able to upload these location information to the location management server on demand or triggered, if the location management client is able to report location information to the location management server.

NOTE: Configuration and location information transmission may occur while there is a communication link between the location management client and location management server.

\* \* \* Next Change \* \* \* \*

#### 10.9.2.1 Location reporting configuration

Table 10.9.2.1-1 describes the information flow from the location management server to the location management client for the location reporting configuration.

Table 10.9.2.1-1: Location reporting configuration

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MC service ID | M | Identity of the MC service user to which the location reporting configuration is targeted. |
| Requested non-emergency location information | O (see NOTE 1) | Identifies what location information is requested, except for emergency or imminent peril calls or emergency alerts |
| Requested emergency location information | O (see NOTE 1) | Identifies what location information is requested, for emergency or imminent peril calls or emergency alerts |
| Triggering criteria in non- emergency cases | O (see NOTE 1) | Identifies when the location management client will send the location report in non-emergency cases |
| Handling criteria in not reporting location information cases | O | Identifies when the location management client will store location information (e.g. never, off-network, IOPS) |
| Triggering criteria in not reporting location information cases | O (see NOTE 2) | Identifies the causes when the location management client will generate location information |
| Minimum time between consecutive reports | O (see NOTE 1) | Defaults to 0 if absent and 0 for emergency calls, imminent peril calls and emergency alerts |
| Triggering criteria in emergency cases | O (see NOTE 1) | Identifies when the location management client will send the location report in emergency cases |
| NOTE 1: If none of the information elements is present, this represents a cancellation for location reporting based on Triggering criteria in emergency and non-emergency cases, if configured.  NOTE 2: If not present, location information generated based on Triggering criteria in emergency and non-emergency cases, if configured. | | |

\* \* \* End of Change \* \* \* \*