**3GPP TSG-CT WG1 Meeting #137-eC1-224553**

**E-Meeting, 18th – 26th August 2022**

(revision of CP-yyxxxx)

**Source: TD Tech, Huawei**

**Title: New WID on CT aspects of Mission Critical Services over 5MBS**

**Document for: Approval**

**Agenda Item: 18.1.1**

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>   
See also the [3GPP Working Procedures](http://www.3gpp.org/specifications-groups/working-procedures), article 39 and the TSG Working Methods in [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm)

# Title: CT aspects of Mission Critical Services over 5MBS

Acronym: MCOver5MBS

Unique identifier: xxxxxx

Potential target Release: Rel-18

# 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Affects: | UICC apps | ME | AN | CN | Others (specify) |
| Yes |  | X |  | X |  |
| No | X |  | X |  | X |
| Don't know |  |  |  |  |  |

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a

|  |  |
| --- | --- |
|  | Feature |
| X | Building Block |
|  | *Work Task* |
|  | Study Item |

## 2.2 Parent Work Item

|  |  |  |  |
| --- | --- | --- | --- |
| Parent Work / Study Items | | | |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| MCOver5MBS | SA6 | 930016 | Mission Critical Services over 5MBS |

### 2.3 Other related Work Items and dependencies

|  |  |  |
| --- | --- | --- |
| Other related Work /Study Items (if any) | | |
| Unique ID | Title | Nature of relationship |
| 920051 | Mission Critical Services over 5GS | R17 Stage 2 and CT1 aspects of Mission Critical Services over 5GS |
| 850040 | Broadcast / Multicast requirements supporting Mission Critical Services in 5G | R17 Stage 1 work on Broadcast / Multicast requirements supporting Mission Critical Services. |
| 900038 | Multicast-broadcast services in 5G | R17 Stage 2 and CT1 aspects of the architectural enhancements for 5G multicast-broadcast services |
| 860048 | NR support of Multicast and Broadcast Services | R17 RAN-related WID to standardize the RAN basic functions for broadcast/multicast in 5GS |

# 3 Justification

3GPP has developed the 5G System (5GS) specifications, beginning in Release 15. Further specification work has been done in Release 16 and Release 17. In order to make MC Services available over 5GS., Stage 2 has organised the corresponding normative work as follows:

* Focus area 1: On-network - unicast communication for Mission Critical Services;
* Focus area 2: On-network – multicast and broadcast communications for Mission Critical Services;
* Focus area 3: Off-network communication and On-network communication of Mission Critical Services (encompassing UE-to-network relay support);

Normative work for focus area 1 is completed in WI Mission Critical Services over 5GS both in stage-2 and stage-3 in Release 17.

The work for focus area 2 depends on the multicast and broadcast communication capabilities in 5GS completed in 3GPP Rel-17. Normative stage 2 work is undertaken by SA6 ([SP-210958](https://www.3gpp.org/DynaReport/GanttChart-Level-2.htm#bm930016)) in 3GPP Rel-18.

The proposed work item addresses the necessary stage-3 normative work for MCOver5MBS summarized in 3GPP TS 23.289.

# 4 Objective

The proposed WI will implement the stage 2 requirement of TS 23.289 developed by SA6 under Rel-18 WI MCOver5MBS, in stage-3 specifications to support on-network multicast and broadcast transport capabilities for Mission Critical Services over 5GS, with the following objectives:

1) Support of MBS session management related messages, e.g.,

- MBS session (de-)announcement;

- UE session join notification; and

- (Un-)Mapping Group to session stream.

2) Mobility aspects

- Multicast/broadcast mode support during system change between 5GS and EPS, and

- Service continuity between multicast/broadcast and unicast delivery in 5GS.

3) Support of MBS Transmission of downlink media for all MC services and Aplication level control signalling.

4) Other aspects documented in the parent work item.

Existing standardized MC services protocol solutions shall be utilized and enhanced if necessary.

# 5 Expected Output and Time scale

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| New specifications {One line per specification. Create/delete lines as needed} | | | | | |
| Type | TS/TR number | Title | For info  at TSG# | For approval at TSG# | Rapporteur |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} | | | |
| TS/TR No. | Description of change | Target completion plenary# | Remarks |
| TS 24.281 | Specs/protocol update of signalling plane aspects for MCVideo over 5MBS as specified in MCOver5MBS. | TSG CT#100 (June 2023) | CT1 |
| TS 24.282 | Specs/protocol update of signalling plane aspects for MCData over 5MBS as specified in MCOver5MBS. | TSG CT#100 (June 2023) | CT1 |
| TS 24.379 | Specs/protocol update of signalling plane aspects for MCPTT over 5MBS as specified in MCOver5MBS. | TSG CT#100 (June 2023) | CT1 |
| TS 24.380 | Potential update of MCPTT media plane control specs to support 5MBS as specified in MCOver5MBS | TSG CT#100 (June 2023) | CT1 |
| TS 24.481 | Potential updates to group data for MCS to support 5MBS as specified in MCOver5MBS. | TSG CT#100 (June 2023) | CT1 |
| TS 24.483 | Potential updates to MOs for MCS to support 5MBS as specified for MCOver5MBS. | TSG CT#100 (June 2023) | CT1 |
| TS 24.484 | Potential updates to configuration data for MCS to support 5MBS as specified in MCOver5MBS. | TSG CT#100 (June 2023) | CT1 |
| TS 24.581 | Potential update of MCVideo media plane control specs to support 5MBS as specified in MCOver5MBS. | TSG CT#100 (June 2023) | CT1 |
| TS 24.582 | Potential update of MCData media plane control specs to support 5MBS as specified in MCOver5MBS. | TSG CT#100 (June 2023) | CT1 |

# 6 Work item Rapporteur(s)

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# 7 Work item leadership

CT1

# 8 Aspects that involve other WGs

# 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| CALTTA |
| CATT |
| CBN |
| CMCC |
| Huawei |
| HiSilicon |
| Nokia |
| Nokia Shanghai Bell |
| TD Tech |