**3GPP TSG-CT WG1 Meeting #137-eC1-224661**

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

**Source: Huawei, HiSilicon**

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

**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 5GProSe

Acronym: MCOver5GProSe

Unique identifier: xxxxxx

Potential target Release: Rel-18

# 1 Impacts

{For Normative work, identify the anticipated impacts. For a Study, identify the scope of the study}

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

# 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) |
| MCOver5GProSe | SA6 | 940023 | Mission Critical Services over 5GProSe |

### 2.3 Other related Work Items and dependencies

|  |  |  |
| --- | --- | --- |
| Other related Work /Study Items (if any) | | |
| Unique ID | Title | Nature of relationship |
| N/A |  |  |

# 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, SA6 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. Regarding focus area 2, normative stage 2 work is undertaken by SA6 in Release-18. For focus area 3, normative stage 2 WI MCOver5GProSe ([SP-211517](https://www.3gpp.org/DynaReport/GanttChart-Level-2.htm#bm940023)) is almost completed.

This work item will provide the necessary stage-3 work for the MCOver5GProSe normative requirements as specified in TS 23.289.

# 4 Objective

The objective of this WI is to define the stage 3 aspects for stage 2 TS 23.289 developed by SA6 under Rel-18 WI MCOver5GProSe. The focus is to perform the necessary updates of stage-3 specifications to ensure support of Off-network communication and On-network communication of Mission Critical Services (encompassing UE-to-network relay support) over 5GS, with the following objectives:

1) Off network group communication for MC service over 5G ProSe:

- Necessary alignment with ProSe terminology in 5GS; and

- Suppport Groupcast mode 5G ProSe Direct Communication.

2) Off-network private communication for MC service over 5G ProSe:

- Necessary alignment with ProSe terminology in 5GS;

- Support Group Member Discovery; and

- Support Unicast mode 5G ProSe Direct Communication.

3) Use of 5G ProSe layer 2 UE-to-network relay and layer 3 UE-to-network relay:

- 5G ProSe UE-to-network relay is provisioned that each relay service code is offering layer 2 or layer 3 UE-to-Network Relay service;

- 5G ProSe remote UE is provisioned that each relay service code is offering layer 2 or layer 3 UE-to-Network Relay service;

- 5G ProSe Layer-3 UE-to-network relay is provisioned with suitable relay service codes to support access to N3IWF for the case of 5G ProSe Layer-3 UE-to-network relay with the support of N3IWF; and

- UE-to-network relay MC service.

4) Path switch between MBS session and 5G ProSe UE-to-network relay; and

5) Configurations for MC service over 5G ProSe.

# 5 Expected Output and Time scale

|  |  |  |  |
| --- | --- | --- | --- |
| 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 as specified in MCOver5GProSe. | TSG CT#102 (December 2023) | CT1 |
| TS 24.282 | Specs/protocol update of signalling plane aspects for MCData over as specified in MCOver5GProSe. | TSG CT#102 (December 2023) | CT1 |
| TS 24.379 | Specs/protocol update of signalling plane aspects for MCPTT as specified in MCOver5GProSe. | TSG CT#102 (December 2023) | CT1 |
| TS 24.380 | Potential update of MCPTT media plane control specs to support MCOver5GProSe. | TSG CT#102 (December 2023) | CT1 |
| TS 24.481 | Updates to group data for MCS to support MCOver5GProSe. | TSG CT#102 (December 2023) | CT1 |
| TS 24.483 | Updates to MOs for MCS to support MCOver5GProSe. | TSG CT#102 (December 2023) | CT1 |
| TS 24.484 | Updates to configuration data for MCS to support MCOver5GProSe. | TSG CT#102 (December 2023) | CT1 |
| TS 24.581 | Potential update of MCVideo media plane control specs to support MCOver5GProSe. | TSG CT#102 (December 2023) | CT1 |
| TS 24.582 | Potential update of MCData media plane control specs to support MCOver5GProSe. | TSG CT#102 (December 2023) | CT1 |

# 6 Work item Rapporteur(s)

Haitao Wei, Huawei

weihaitao(at)huawei(dot)com

# 7 Work item leadership

CT1

# 8 Aspects that involve other WGs

SA2 for ProSe aspects, SA3 for security aspects, RAN for NR sidelink radio aspects.

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| Huawei |
| HiSilicon |
| CATT |
| CBN |
| CMCC |
| TD Tech |