**3GPP TSG-CT WG1 Meeting #130-eC1-213479**

**E-meeting, 20-28 May 2021**

**Source: Nokia, Nokia Shanghai Bell**

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

**Document for: Approval**

**Agenda Item: 17.1.1**

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 5GS

## Acronym: MCOver5GS

## Unique identifier:

Potential target Release: Rel-17.

Note that this field above indicates the proposed Release at the time of submission of the WID to TSG approval. It can later be changed without a need to revise the WID. The updated target Release is indicated in the Work Plan.

## 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) |
| MCOver5GS | SA6 | 890027 | Mission Critical Services over 5GS |

### 2.3 Other related Work Items and dependencies

|  |  |  |
| --- | --- | --- |
| Other related Work Items (if any) | | |
| Unique ID | Title | Nature of relationship |
| FS\_MCOver5GS | Study on Mission Critical services support over 5G System | Study on the support of Mission Critical services over the 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 work for Release 17 is ongoing. Based on input from 3GPP SA1, TSG SA#78 confirmed that the stage 1 Mission Critical (MC) specifications are applicable to LTE and beyond, including 5G (SP-170985). However, existing stage-2 and stage-3 specifications are not applicable to 5G.

SA6 has started the corresponding normative work in MCOver5GS (SP-200833) organized as follows:

* Focus area 1: On-network unicast communication for MC services;
* Focus area 2: On-network multicast communication for MC services;
* Focus area 3: Off-network communication and on-network communication of MC Services (encompassing UE-to-network relay support);

The focus of normative stage-2 work of MCOver5GS is to provide solutions that are beneficial for on-network unicast communication for MC services, i.e., focus area 1. This encompasses the use of transport resources, Data Network Names (DNNs), the use of 5GS transport partitioning (network slicing), and the requirements for resource/QoS management. Focus areas 2 and 3 will be completed when the solutions for the use of multicast, the use of off-network and the transition between off-network and on-network are available.

This work item will provide the necessary stage-3 work for the MCOver5GS normative requirements as specified in TS 23.289.

## 4 Objective

The objectives of this WI are to define the stage 3 aspects for stage 2 technical specifications developed by SA6 under their work item MCOver5GS in Rel-17. The main focus is to perform the necessary updates of stage-3 specifications to ensure support of on-network unicast communication for MC services over 5G.

Stage 3 work shall be started only after the applicable normative stage 2 work is available.

Work in CT Working Groups will cover the necessary stage-3 protocol and procedural enhancements, and the creation of new configuration parameters for the following non-exhaustive list of aspects:

1. the use of 5GS QoS model;
2. MC service resource management and control supporting resource sharing priority of simultaneous MC service communications;
3. support of network slicing and DNNs for MC services with authentication/authorization for the use of the Data Network(s);
4. roaming support with user profile provisioning with 5GS PLMN info;
5. other aspects documented in the parent work item.

Existing standardized MC services protocol solutions shall be utilized and enhanced where possible.

## 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** | | | |
| TS/TR No. | Description of change | Target completion plenary# | Remarks |
| TS 24.281 | Specs/protocol update of signalling plane aspects for MCVideo over 5GS as specified in MCOver5GS. | TSG CT#95 (March 2022) | CT1 |
| TS 24.282 | Specs/protocol update of signalling plane aspects for MCData over 5GS as specified in MCOver5GS. | TSG CT#95 (March 2022) | CT1 |
| TS 24.379 | Specs/protocol update of signalling plane aspects for MCPTT over 5GS as specified in MCOver5GS. | TSG CT#95 (March 2022) | CT1 |
| TS 24.380 | Potential update of MCPTT media plane control specs to support 5GS as specified in MCOver5GS | TSG CT#95 (March 2022) | CT1 |
| TS 24.481 | Potential updates to configuration data for groups to support 5GS as specified in MCOver5GS. | TSG CT#95 (March 2022) | CT1 |
| TS 24.483 | Potential updates to MOs needed to support DNNs and network slicing as specified for MCOver5GS. | TSG CT#95 (March 2022) | CT1 |
| TS 24.484 | Updates to system and user configuration data to support DNNs and network slicing as specified in MCOver5GS. | TSG CT#95 (March 2022) | CT1 |
| TS 24.581 | Potential update of MCVideo media plane control specs to support 5GS as specified in MCOver5GS. | TSG CT#95 (March 2022) | CT1 |
| TS 24.582 | Potential update of MCData media plane control specs to support 5GS as specified in MCOver5GS. | TSG CT#95 (March 2022) | CT1 |

## 6 Work item Rapporteur(s)

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## 7 Work item leadership

CT1

## 8 Aspects that involve other WGs

SA3 for security aspects.

## 9 Supporting Individual Members

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| Supporting IM name |
| Nokia |
| Nokia Shanghai Bell |
| Samsung |
| Kontron Transportation France |
| Ericsson |
| FirstNet |
| Airbus |
| UIC |