**3GPP TSG|WG-3 Meeting #100-e S3-201652**

**emeeting 17-28 August 2020**

**Source: Motorola Solutions**

**Title: New WID on mission critical security enhancements for release 17**

**Document for: Agreement**

**Agenda Item: 4.22**

3GPP™ Work Item Description

For guidance, see [3GPP Working Procedures](http://www.3gpp.org/About/WP.htm), article 39; and [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm).
Comprehensive instructions can be found at <http://www.3gpp.org/Work-Items>

# Title: New WID on mission critical security enhancements phase 2

## Acronym: MCXSec2

## Unique identifier: <tbd>

 Potential target Release: Rel-17

## 1 Impacts

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

## 2 Classification of the Work Item and linked work items

### 2.1 Primary classification

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

### 2.2 Parent Work Item

|  |
| --- |
| Parent Work/ Study Items  |
| Unique ID | Title | Nature of relationship |
| 700028 | Mission Critical Services Common Requirements | Stage 1 WID |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work Items (if any) |
| Unique ID | Title | Nature of relationship |
| 840038 | [MC services support on IOPS mode of operation](https://www.3gpp.org/DynaReport/WiCr--840038.htm) | Stage 2 WID |
| 870016 | [Enhanced Mission Critical Push-to-talk architecture phase 3](https://www.3gpp.org/DynaReport/WiCr--870016.htm) | Stage 2 WID |
| 860007 | Mission Critical Data  | Stage 2 WID |
| 760049 | MC system migration and interconnection | Stage 2 WID |
| 760050 | MC communication interworking between LTE and non-LTE systems | Stage 2 WID |
| 840037 | [Enhancements to Application Architecture for the Mobile Communication System for Railways Phase 2](https://www.3gpp.org/DynaReport/WiCr--840037.htm) | Stage 2 WID |

## 3 Justification

As the mission critical architecture continues to evolve, the mission critical security architecture needs to maintain alignment. Stage 2 architecture work for Release 17 Mission Critical features (interworking, interconnect, migration, MONASTERY, IOPS, MCPTT, MCVideo and MCData) continues to mature in SA6.

SA3 needs to address the security for the mission critical architectural enhancements, modifications and new features based upon Rel-17 updates to SA6 documents TS 23.379 "Functional architecture and information flows to support mission critical communication services", TS 23.280 "Common functional architecture to support mission critical services", TS 23.281 "Functional architecture and information flows for mission critical video", TS 23.282 "Functional architecture and information flows to support Mission Critical Data (MCData)", TS 23.283 “Mission Critical Communication Interworking with Land Mobile Radio Systems”, and TS 23.180 “Mission critical services support in the isolated operation for public safety (IOPS) mode of operation”.

## 4 Objective

This work item will address the SA3 normative security work for the mission critical architecture based on the output of SA6 as specified in TS 23.379, TS 23.280, TS 23.281, TS 23.282, 23.283 and TS 23.180 including:

* Mission critical PTT, MCPTT individual and group functional architecture and information flows;
* Mission critical data, MCData individual and group functional architecture and information flows;
* Mission critical Video, MCVideo individual and group functional architecture and information flows;
* Mission critical interconnection between MCPTT systems, with a scope that includes the mission critical services of individual and group MCPTT, MCVideo and MCData;
* Mission critical interworking between MC systems and LMR systems which includes MCPTT and MCData (SDS only) individual and group services.
* Mission critical migration between MCPTT systems, which includes the mission critical services of individual and group MCPTT, MCVideo and MCData;
* MONASTERY, mission critical future railway architecture for individual and group MCPTT, MCData and MCVideo;
* IOPS, mission critical isolated operation for public safety including individual and group MCPTT, MCData and MCVideo.

The Stage 2 security architecture defined in Release 16 shall form the basis of the Release 17 architecture to maintain cohesion, integration and backward compatibility across Mission Critical services.

## 5 Expected Output and Time scale

|  |
| --- |
| **New specifications** *{One line per specification. Create/delete lines as needed}* |
| Proposed Spec no. or series | Type (see note 1)  | Rapporteur(s)(see note 2) | For info at TSG#  | For approval at TSG# | Remarks |
|  None |  |  |  |  |  |

Note 1: Only TSs may contain normative provisions. Study Items shall create or impact only TRs.
"Internal TR" is intended for 3GPP internal use only whereas "External TR" may be transposed by OPs.

Note 2: The first listed Rapporteur is the specification primary Rapporteur. Secondary Rapporteur(s) are possible for particular aspect(s) of the TS/TR. In this case, their responsibility has to be provided as "Remarks".

|  |
| --- |
| **Impacted existing TS/TR** *{One line per specification. Create/delete lines as needed}* |
| TS/TR No. | Description of change  | Target completion plenary# |
| 33.180 | Enhancements to the mission critical security based on evolution of the mission critical architecture defined by SA1 and SA6. | SA#92(06/21) |

## 6 Work item Rapporteur(s)

Woodward, Tim, Motorola Solutions, Inc, *tim.woodward@motorolasolutions.com*

## 7 Work item leadership

SA3

## 8 Aspects that involve other WGs

SA6 shall define the stage 2 architecture(s)

CT shall define the stage 3 work

## 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| Motorola Solutions |
| Airwave |
| NCSC |
| UK Home Office |
| Ericsson |
| Airbus Defence and Space |
| Nokia |