**TSG SA Meeting #102 SP-231742**

**December 11 – 15, 2023, Edinburgh, Scotland** revision of SP-231308

**Source: SA WG3**

**Title: New WID on mission critical security enhancements for release 19**

**Document for: Approval**

**Agenda Item: 6.2.3**

**3GPP TSG-SA3 Meeting #113 *S3-235057***

**Chicago, US, 6 - 10 November 2023** **(revision of S3-234406 and S3-234946)**

**Source: Motorola Solutions**

**Title: New WID on mission critical security enhancements for release 19**

**Document for: Approval**

**Agenda Item: 6**

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: Mission critical security enhancements for release 19

Acronym: MCXSec4

Unique identifier: 1020035

Potential target Release: Rel-19

# 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Affects: | UICC apps | ME | AN | CN | Others (specify) |
| Yes |  |  |  |  | X (mission critical application) |
| No | X | 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 …

|  |  |
| --- | --- |
|  | Study  |
|  | Normative – Stage 1 |
| X | Normative – Stage 2 |
|  | Normative – Stage 3 |
|  | Normative – Other\* |

**\* Other = e.g. testing**

## 2.2 Parent Work Item

For a brand-new topic, use “N/A” in the table below. Otherwise indicate the parent Work Item.

|  |
| --- |
| Parent Work / Study Items  |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| [MCImp-MCCoRe](https://www.3gpp.org/DynaReport/WiSpec--700028.htm) | SA1 | 700028 | [Mission Critical Services Common Requirements](https://www.3gpp.org/DynaReport/WiCr--700028.htm) |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 940025 | [Enhanced Mission Critical Push-to-talk architecture phase](https://www.3gpp.org/DynaReport/WiCr--870016.htm) 5 | Stage 2 WID |
| 890039 | Mission Critical Data  | Stage 2 WID |
| 820040 | MC system migration and interconnection | Stage 2 WID |
| 810054 | [Enhanced Mission Critical Communication Interworking with Land Mobile Radio Systems](https://www.3gpp.org/DynaReport/WiCr--810054.htm) | Stage 2 WID |
| 950025 | [Interconnection and Migration Aspects for Railways](https://www.3gpp.org/DynaReport/WiCr--840037.htm) | Stage 2 WID |
| 890027 | Mission Critical services over 5G System; Stage 2 | Stage 2 WID |
| 970054 | Mission Critical Service over 5MBS | Stage 2 WID |
| 930043 | Gateway UE function for Mission Critical Communication | Stage 2 WID |
| 970055 | Mission Critical Services over 5GProSe | Stage 2 WID |
| 930025 | Ad hoc Group Communication support in Mission Critical Services | Stage 2 WID |

**Dependency on non-3GPP (draft) specification: NONE**

# 3 Justification

As the mission critical architecture continues to evolve, the mission critical security architecture must maintain alignment. Rel-19 Stage 2 MC architecture work continues in SA6 based on the following SA6 documents, which provide the architecture foundation for mission critical security:

* 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”
* TS 23.289 “Mission Critical services over 5G System”

# 4 Objective

This work item will address the Rel-19 SA3 normative work for the mission critical security architecture based on normative output of SA6 enhancements, modifications, and/or corrections of the mission critical voice (MCPTT), mission critical data (MCData), and mission critical video (MCVideo) functional architecture and information flows.

SA3 normative security work for Rel-19 may include:

* WT1: Discreet listening and logging;
* WT2: Limited Service feature;
* WT3: Expanded message storage coverage for MCPTT and MCVideo services;
* WT4: Broadband Callout feature;
* WT5: Interworking between LMR and 3GPP;
* WT6: Migration enhancements;
* WT7: Railway communications;
* WT8: Administration configuration exchange between interconnected MC service systems;
* WT9: Functional aliases;
* WT10: MC gateways and relays;
* WT11: MC over 5G;
* WT12:MC Over 5MBS;
* WT13: ETSI plugtest and field test related issues, and
* WT14: Unplanned MC security architecture corrections and/or clarifications.

NOTE: Additional objectives to be considered based on approved SA6 Rel-19 WIDs on MCx.

The Stage 2 MC security architecture defined in TS 33.180 for Release 18 shall form the basis of the Release 19 architecture to maintain cohesion, integration, and backward compatibility across Mission Critical services.

## TU estimates and dependencies:

|  |  |  |
| --- | --- | --- |
| Work Task ID | TU Estimate(Normative) | Other 3GPP Group Dependency(Yes/No/Maybe) |
| WT1 | 0.25 | Maybe (SA6) |
| WT2 | 0.025 | Maybe (SA6) |
| WT3 | 0.25 | Maybe (SA6) |
| WT4 | 0.25 | Maybe (SA6) |
| WT5 | 0.25 | Maybe (SA6) |
| WT6 | 0.25 | Maybe (SA6) |
| WT7 | 0.25 | Maybe (SA6) |
| WT8 | 0.25 | Maybe (SA6) |
| WT9 | 0.25 | Maybe (SA6) |
| WT10 | 0.25 | Maybe (SA6) |
| WT11 | 0.25 | Maybe (SA6) |
| WT12 | 0.25 | Maybe (SA6) |
| WT13 | 0.25 | Maybe (SA6) |
| WT14 | 0.25 | Maybe (SA6) |

**Total TU estimates: 3.5TUs**

# 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 |
| None |  |  |  |  |  |

|  |
| --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| TS 33.180 | Rel-19 enhancements to the mission critical security based on evolution of the mission critical architecture as defined by SA1 and SA6. | TSG#106(December 2024) |  |

# 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)

CT1 shall define the stage 3 work

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| Motorola Solutions, Inc |
| Airwave |
| NIST |
| FirstNet |
| UK Home Office |
| NCSC |
| Ericsson |
| Airbus |
| AT&T |
| Nokia |
| Nokia Shanghai Bell |
| Samsung |