**3GPP TSG CT WG3 Meeting #137 C3-245441**

**Hefei, CN, 14 - 18 October, 2024 (revision of C3-245063)**

**3GPP TSG-CT WG1 Meeting #151C1-245314**

**Hefei, China, 14-18 October 2024 (revision of C1-yyxxxx)**

**Source: Samsung**

**Title: New WID on CT aspects for application enablement for satellite access Phase 3**

**Document for: Approval**

**Agenda Item: 19.2**

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 for application enablement for satellite access Phase 3

Acronym: 5GSAT\_Ph3\_App

Unique identifier:

Potential target Release: Rel-19

# 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 | x |  | x |  |  |
| Don't know |  |  |  |  | x |

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

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

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

## 2.2 Parent Work Item

|  |  |  |  |
| --- | --- | --- | --- |
| Parent Work / Study Items | | | |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| 5GSAT\_Ph3\_App | SA6 | 1040077 | Application enablement for satellite access Phase 3 |

### 2.3 Other related Work Items and dependencies

|  |  |  |
| --- | --- | --- |
| Other related Work /Study Items (if any) | | |
| Unique ID | Title | Nature of relationship |
| 1020044 | Study on Security Aspects of 5G Satellite Access Phase 3 | SA3 |

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

# 3 Justification

A substantial justification appears in the work item description for the parent feature (5GSAT\_Ph3\_App, Unique ID: 1040077) and applies to this building block work item description as well.

The 5GSAT\_Ph3\_App WID in SA6, specifies the application layer architecture, procedures and information flows necessary for enabling the satellite applications over 3GPP networks.

CT WGs need to define stage-3 protocol aspects of the architecture for enabling satellite applications, based on normative stage 2 specification developed by 3GPP SA6 and SA3 WG.

# 4 Objective

To define the protocol aspects and related APIs for enabling satellite applications based upon the normative Rel-19 Stage 2 3GPP TS 23.558, 3GPP TS 23.434 and 3GPP TS 23.289 developed by SA6 WG (additional CT WGs impacts areas may be identified based on the progress of the normative stage 2 work in SA6). The stage-3 work shall be started after the applicable normative stage-2 aspects in SA6 are specified.

For CT1, the expected work includes as mentioned below:

1. Protocol enhancements for EDGE-1, EDGE-4 reference points (e.g. Edge computing on-board the satellite).
2. Protocol enhancement for SEAL-Uu reference point for:
   1. SEAL Configuration Management, Network Resource Management and Location Management services.
   2. SEALDD services (e.g. minimize service interruption).
3. Protocol enhancements to Mission Critical Services via satellite.

For CT3, the expected work includes as mentioned below:

1. Potential APIs enhancements for EDGE-3, EDGE-6 reference points (e.g. Edge computing on-board the satellite, Eees\_EASRegistration, Eecs\_EESRegistration, Eees\_EASDiscovery).
2. Potential APIs enhancements for SEAL-S reference point.
   1. Potential enhancements to ADAES for RAT connectivity analytics stats/predictions.

# 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 |
| 24.558 | Enhancements to Enabling Edge Applications; Protocol specification. | TSG CT#109 (September 2025) | CT1 |
| 24.546 | Enhancements to Configuration management - Service Enabler Architecture Layer for Verticals (SEAL); Protocol specification | TSG CT#109 (September 2025) | CT1 |
| 24.548 | Enhancements to Network Resource management - Service Enabler Architecture Layer for Verticals (SEAL); Protocol specification | TSG CT#109 (September 2025) | CT1 |
| 24.545 | Enhancements to Location management - Service Enabler Architecture Layer for Verticals (SEAL); Protocol specification | TSG CT#109 (September 2025) | CT1 |
| 24.543 | Data Delivery Management - Service Enabler Architecture Layer for Verticals (SEAL); Protocol specification | TSG CT#109 (September 2025) | CT1 |
| 24.379 | Enhancements to Mission Critical Push To Talk (MCPTT) call control; Protocol specification | TSG CT#109 (September 2025) | CT1 |
| 24.282 | Enhancements to Mission Critical Data (MCData) signalling control; Protocol specification | TSG CT#109 (September 2025) | CT1 |
| 24.281 | Enhancements to Mission Critical Video (MCVideo) signalling control; Protocol specification | TSG CT#109 (September 2025) | CT1 |
| 29.558 | Potential enhancements to Enabling Edge Applications; Application Programming Interface (API) specification; Stage 3. | TSG CT#109 (September 2025) | CT3 |
| 29.549 | Potential enhancement to the SEAL service(s) for store and forward, configuration management for satellite. | TSG CT#109 (September 2025) | CT3 |
| 29.548 | Potential enhancements to Service Enabler Architecture Layer for Verticals (SEAL); SEAL Data Delivery (SEALDD) Server Services; Stage 3 | TSG CT#109 (September 2025) | CT3 |

# 6 Work item Rapporteur(s)

Narendranath Durga Tangudu (n.tangudu@samsung.com)

# 7 Work item leadership

CT3

# 8 Aspects that involve other WGs

SA3 for security aspects.

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| Samsung |
| Ericsson |
| CATT |
| Verizon |
| ZTE |
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