3GPP TSG CT WG3 Meeting #135 C3-243xxx

Hyderabad, IN, 27 - 31 May, 2024 was C3-243138

3GPP TSG CT WG1 Meeting #149 C1-243xxx

Hyderabad, IN, 27 - 31 May, 2024 was C1-243133

**Source: Huawei, HiSilicon**

**Title: New WID on Rel-19 Enhancements of 3GPP Northbound and Application Layer Interfaces and APIs**

**Document for: Approval**

**Agenda Item: 19.1.1**

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: Rel-19 Enhancements of 3GPP Northbound and Application Layer Interfaces and APIs

Acronym: NBI19

Unique identifier: XXXXXX

Potential target Release: Rel-19

# 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:

|  |  |
| --- | --- |
|  | 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) |
| N/A |  |  |  |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 840013 | Enhancement of 3GPP Northbound APIs | Rel-16 enhancements to 3GPP Northbound APIs. |
| 920013 | Rel-17 Enhancements of 3GPP Northbound Interfaces and Application Layer APIs | Rel-17 Enhancements of 3GPP Northbound Interfaces and Application Layer APIs. |
| 960022 | Rel-18 Enhancements of 3GPP Northbound Interfaces and Application Layer APIs | Rel-18 Enhancements of 3GPP Northbound Interfaces and Application Layer APIs. |

# 3 Justification

The 3GPP Northbound Interfaces and APIs (e.g., SCEF Northbound APIs defined in 3GPP TS 29.122, NEF Northbound APIs defined in 3GPP TS 29.522, CAPIF APIs defined in 3GPP TS 29.222, etc.) are specified in 3GPP in order to enable external entities and third-party Application Servers/Functions to access a set of exposed 3GPP network services and capabilities in a secure and controlled manner.

3GPP application layer interfaces and APIs (e.g., ProSe PC2 reference point defined in 3GPP TS 29.343, UAE Server APIs defined in 3GPP TS 29.257, EDGEAPP APIs defined in 3GPP TS 29.558, V2XAPP APIs defined in 3GPP TS 29.486, SEAL APIs defined in 3GPP TS 29.549, 3GPP TS 29.548 and 3GPP TS 29.435, etc.) are also specified in 3GPP to enable the support and exposure of application layer frameworks/services and their interactions with the 3GPP network services, in order to enable the efficient support and use of applications over the 3GPP network.

There is a need to apply technical improvements and enhancements (e.g., improve the overall efficiency, increase the flexibility, enhance the reliability, improve the signaling efficiency, etc.) to these 3GPP Northbound and Application Layer interfaces and APIs, as such enhancements may not be covered by the other dedicated (e.g., stage 2 dependent) work items.

# 4 Objective

The objective of this work item is to specify the technical enhancements and necessary changes to the 3GPP Northbound and Application Layer interfaces and APIs which are not covered by other dedicated work items. For CT1 and CT3, this hence mainly includes:

- the consolidation of the common protocol and interface aspects;

- protocol and interface enhancements and optimizations; and

- the corrections and/or changes missed in the previous 3GPP Releases, which do not fall under the scope of any other dedicated WI.

# 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 |
| N/A |  |  |  |  |  |

|  |
| --- |
| 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 | Technical enhancements to the EDGEAPP APIs under CT1's remit. | CT#109 (September 2025) | CT1 |
| 24.559 | Technical enhancements to the ADAES APIs under CT1's remit. | CT#109 (September 2025) | CT1 |
| 29.116 | Technical enhancements to xMB APIs. | CT#109 (September 2025) | CT3 |
| 29.122 | * Technical enhancements to the common protocol and interface aspects for 3GPP Northbound and Application Layer interfaces and APIs.
* Technical enhancements to SCEF/NEF northbound APIs.
 | CT#109 (September 2025) | CT3 |
| 29.222 | Technical enhancements to the CAPIF APIs and the associated common framework for Northbound and Application Layer interfaces and APIs. | CT#109 (September 2025) | CT3 |
| 29.255 | Technical enhancements to the USS APIs. | CT#109 (September 2025) | CT3 |
| 29.257 | Technical enhancements to the UAE Server APIs. | CT#109 (September 2025) | CT3 |
| 29.343 | Technical enhancements to the ProSe PC2 interface. | CT#109 (September 2025) | CT3 |
| 29.435 | Technical enhancements to the SEAL NSCE Server APIs. | CT#109 (September 2025) | CT3 |
| 29.486 | Technical enhancements to the VAE Server APIs. | CT#109 (September 2025) | CT3 |
| 29.522 | Technical enhancements to the NEF Northbound APIs. | CT#109 (September 2025) | CT3 |
| 29.538 | Technical enhancements to the MSGin5G Servers APIs. | CT#109 (September 2025) | CT3 |
| 29.548 | Technical enhancements to the SEAL SEALDD Server APIs. | CT#109 (September 2025) | CT3 |
| 29.549 | Technical enhancements to the SEAL APIs. | CT#109 (September 2025) | CT3 |
| 29.558 | Technical enhancements to the EDGEAPP APIs under CT3's remit. | CT#109 (September 2025) | CT3 |
| 29.583 | Technical enhancements to the PIN Server APIs. | CT#109 (September 2025) | CT3 |

# 6 Work item Rapporteur(s)

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# 7 Work item leadership

CT3

# 8 Aspects that involve other WGs

None.

# 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| Huawei |
| HiSilicon |
| Ericsson |
| NTT |
| Nokia |
| Samsung |