**3GPP TSG-SA Meeting #104SP-xxxxxx**

**Shangahi, China, 18th June 2024 - 21th June 2024**

**Source: SA WG5**

**Title: New WID on 5G Advanced NRM features phase 3**

**Document for: Approval**

**3GPP TSG- Meeting #**

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**Source: Nokia, Nokia Shanghai Bell**

**Title: New WID on 5G Advanced NRM features phase 3**

**Document for: Approval**

**Agenda Item: 6.2.2**

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: 5G Advanced NRM features phase 3

Acronym: AdNRM\_Ph3

Unique identifier: 1020027

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  |
| X | Normative – Stage 1 |
| X | 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 | N/A | N/A | N/A |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 950031 | 5G Advanced NRM features phase 2 |  |
| 860040 | Further enhancements on MIMO for NR (NR\_feMIMO) |  |
| 980059 | CT4 aspects of 5G\_eLCS\_Ph3 |  |
| 990067 | CT4 aspects of Ranging\_SL |  |
| 990055 | Architecture for enabling Edge Applications | Defines EDEGAPP architecture |

# 3 Justification

Network Resource Model (NRM), which is standardized management and service model, is essential to support new features of NR and 5GC in Rel-19 and Rel-18. E.g.

* SA2/CT4: Architecture enhancements for the support of 5G System Enhancement, aligning information elements on 5GC NF etc.
* RAN: Further Enhancement on MIMO, etc.
* There are continuous enhancements on GSMA NG.116, which may require enhancement for possible misalignments and Service/Slice Profile and inconsistencies in Network slice NRM.

On the other hand, there’s leftover in Rel18 NRM, stage 3 enhancement, generic NRM enhancement etc.

The NRM information model design shall consider the capability the provisioning operations (as defined in TS 28.532).

EDGEAPP has evolved with additional features in Rel-19 that need management support. The edge NRM need to be enhanced to those features.

# 4 Objective

* WT-1: Enhancement for 5GC NRM to support 5GC features (including but not limited to 5G\_eLCS\_Ph3, ranging based services).
* WT-2: Enhancement for NR NRM to support NR features (note: to be updated based on RAN Rel19 progress).
* WT-3: Enhancement for NRM fragment related to misalignment with NG.116.
* WT-4: Generic NRM enhancement.
* WT-5: Stage 3 enhancement.
* WT-6: Enhancement for edge NRM to support new EDGEAPP features defined in Rel-19.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Work Task ID** | **TU Estimate (Study)** | **TU Estimate (Normative)** | **RAN Dependency (Yes/No/Maybe)** | **SA/CT Dependency (Yes/No/Maybe)** | **Non-3Gpp Dependency****(Yes/No/Maybe)** |
| WT-1 | 0 | 0.6 | Maybe | Yes | No |
| WT-2 | 0 | 0.6 | Yes | Maybe | No |
| WT-3 | 0 | 0.3 | Maybe | Maybe | Maybe |
| WT-4 | 0 | 0.3 | No | No | No |
| WT-5 | 0 | 0.2 | No | No | No |
| WT-6 | 0 | 1 | No | Yes | No |

**Total TU estimates for the study phase: 0**

**Total TU estimates for the normative phase: 3**

**Total TU estimates: 3**

# 5 Expected Output and Time scale

|  |
| --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| 28.540 | Add requirements to support REL19 features | SA#108(Jun 2025) | This TS covers stages 1. |
| 28.541 | Add NRM Stage 2 and Stage 3 definitions to support REL19 features | SA#108(Jun 2025) | This TS covers both stages 2 and 3. |
| 28.622 | Minor enhancements | SA#108(Jun 2025) | This TS covers stages 2. |
| 28.623 | Minor enhancements | SA#108(Jun 2025) | This TS covers stages 3. |
| 28.538 | Add NRM Stage 2 and Stage 3 definitions to support REL19 EDGEAPP features. | SA#108(Jun 2025) | This TS covers both stages 2 and 3. |

# 6 Work item Rapporteur(s)

Primary Rapporteur: Sean Sun (Nokia), sean.sun@nokia-sbell.com

Secondary Rapporteur: Shi Xiaoli (Huawei), (shixiaoli@huawei.com)

# 7 Work item leadership

*SA5*

# 8 Aspects that involve other WGs

Potential coordination: providing network resource model for network features defined in SA2, SA6, CT4, RAN3 and RAN4.

# 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| Nokia |
| Nokia Shanghai Bell |
| KDDI |
| TELUS |
| Samsung |
| CATT |
| Ericsson |
| Deutsche Telekom |
| Verizon |
| Telefónica |
| Huawei |
| P.I. Works |
| NEC |

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