**3GPP TSG-SA5 Meeting #156 *S5-244869d1***

**Maastricht, Netherlands, 19 - 23 August 2024** *revision of S5-243771*

**Source: China Telecom**

**Title: New WID on Enhancement of Management Aspects Related of NWDAF Phase 2**

**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: New WID on Enhancement of Management Aspects Related of NWDAF Phase 2

{Free text. It has to be the same as in the "Title:" section above. Studies have to start by "Study on"}

Acronym: NWDAF\_OAM\_Ph2

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 |  |
| No | X | 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  |
| X | Normative – Stage 1 |
| X | Normative – Stage 2 |
| X | 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) |
| FS\_NWDAF\_OAM\_Ph2 | SA5 | 1020020 | Study on Enhancement of Management Aspects related to NWDAF Phase 2 |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 900010 | Work Item on enablers for Network Automation for 5G - phase 2 | SA2 work item on NWDAF in 5GC  |

# 3 Justification

There are two aspects of management enhancement related to the NWDAF studied in Rel-19 FS\_NWDAF\_OAM\_Ph2.

The 1st aspect is the management enhancement supporting NWDAF Roaming Exchange Capability in a roaming scenario.

The NWDAF with Roaming Exchange Capability is used as exchange point to exchange analytics and to collect input data for analytics with other PLMNs. The deployment of NWDAF with Roaming Exchange Capability can increase the workload of NWDAFs deployed in multiple PLMNs. Moreover, considering the operators' policy and local regulation(e.g privacy), it is necessary to provide the operator with the management tools to configure the NWDAF Roaming Exchange Capability and to monitor the related performance.

The 2nd aspect is the management enhancement related to NWDAF data collection efficiency.

The NWDAF Data Collection feature permits NWDAF to retrieve data from various sources (e.g. NF such as AMF, SMF, etc.) or to collect data via DCCF/NWDAF hosting DCCF. This is the basis for NWDAF to provide the network analytic services.

In FS\_NWDAF\_OAM Ph2, the measurement on the total amount of data collected by NWDAF and the measurement on NWDAF data collection efficiency considering the accumulated transmission overhead of NWDAF data collection and the time used for the transmission of the collected data are studied. These measurement can provide useful and necessary information for the operators to evaluate the impact of the NWDAF performing data collection towards the 5GC.

The use cases, potential requirements and the corresponding potential solutions of FS\_NWDAF\_OAM\_Ph2 are provided in TR 28.877. Normative work based on the study is needed to specify the details of these aspects of management enhancement related to the NWDAF.

# 4 Objective

The objective of the work item is to specify how to enhance the management aspects related to the NWDAF based on the study in TR 28.877. It includes:

**WT-1: The management enhancements supporting NWDAF Roaming Exchange Capability in a roaming scenario:**

WT1-1: specify how to indicate an NWDAF supports roaming exchange capability and whether the NWDAF exclusively supports Nnwdaf\_RoamingAnalytics when the NWDAF supports roaming exchange;

WT1-2: specify the performance measurements of NWDAF with Roaming Exchange Capability based on the number of service request/response/subscription/notify and considering whether the service is successful and the time consumption for providing these services.

**WT-2: The management enhancements related to NWDAF data collection efficiency:**

WT2-1: specify the performance measurements reflect the amount of data collected by NWDAF from the data sources or via DCCF/NWDAF hosting DCCF;

WT2-2: specify the performance measurements on the NWDAF data collection efficiency to reflect the relationship between the amount of data collected by an NWDAF and the accumulated corresponding transmission overhead or the time used for the transmission of the collected data.

## TU estimates and dependencies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Work Task ID | TU Estimate(Study) | TU Estimate(Normative) | RAN Dependency(Yes/No/Maybe) | SA Dependency(Yes/No/Maybe) |
| WT-1 | *1* | *1* | No | No |
| WT-2 | *0.5* | *1* | No | No |

# 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 |
| 28.552 | Enhancement of 5G NRMs for NWDAF | Jun 2025 (SA#108) |  |
| 28.541 | Define new and/or enhance existing 5G performance measurements for NWDAF | Jun 2025(SA#108) |  |

# 6 Work item Rapporteur(s)

# 7 Work item leadership

SA5

# 8 Aspects that involve other WGs

None

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| China Telecom |
| China Mobile |
| China Unicom |
| CATT |
| Intel |
| ZTE |
| Huawei |
|  |
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