**3GPP TSG-SA5 Meeting #146bis-e *S5-231090rev1***

**16 - 19 January 2023, E-meeting**

**Source: China Telecom**

**Title: New WID on Enhancement of the Management Aspects related to NWDAF**

**Document for: Approval**

**Agenda Item: 6.2.1**

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: Enhancement of the Management Aspects related to NWDAF

## Acronym: MANWDAF

## Unique identifier:

Potential target Release: {Release 18}

## 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **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 …

|  |  |
| --- | --- |
| X | Feature |
|  | Building Block |
|  | *Work Task* |
|  | Study Item |

### 2.2 Parent Work Item

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| Parent Work / Study Items  |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
|  |  |  |  |

### 2.3 Other related Work Items and dependencies

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| --- |
| Other related Work Items (if any) |
| Unique ID | Title | Nature of relationship |
| 940034 | Study on Enhancement of the Management Aspects related to NWDAF | The preceding MANWDAF study |
| 900010 | Work Item on enablers for Network Automation for 5G - phase 2 | SA2 work item on NWDAF in 5GC |

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

## 3 Justification

The NWDAF was first introduce in Rel-15 and was enhanced in Rel-16 and Rel-17. On one hand, as the requirement on network automation kept increasing, the NWDAF is expected to play a very important role in the future. The management of NWDAF need to be enhanced corresponding to the emerged features of NWDAF.

On the other hand, the TR 28.864 provided the key issues, potential requirements, potential solutions and corresponding evaluations for the enhancement of the management aspects related to NWDAF, including:

* Management enhancement related to the NWDAF deployment aspects, which include the NRM enhancement for management of NWDAF deployed with different capabilities (including the “analytics aggregation capability” and “analytics metadata provisioning capability”) and NRM enhancement for management of NWDAF deployed with different logical functions (including the MTLF (Model Training Logical Function) and AnLF (Analytics Logical Function)),
* Management enhancement for monitoring the NWDAF working status under general and specific deployment conditions, including the statistics and performance related to the services provided by NWDAF on the interaction aspect, data collection aspect, analytics result generation aspect and analytics-related timing aspect

Moreover, according to the TR 28.864, the performance of NWDAF is related to the deployment scenario of NWDAF in some cases. For example, the performance of NWDAF need to be measured based on the logical function granularity in the case when NWDAFs are deployed with different logical functions.

Therefore, it is necessary to specify the enhancement of management aspects related to NWDAF in normative phase based on the TR 28.864.

## 4 Objective

The objective of the work item is to specify the enhancement on the management aspects related to the NWDAF based on the TR 28.864, including:

1. For all the NWDAF:
	1. Specifying enhancement to support monitoring the performance or working status of NWDAF.
2. For the deployment scenario supporting multiple NWDAF:
	1. Specifying enhancement to 3GPP NRMs to support management of NWDAF deployed with different capabilities including the “analytics aggregation capability” and “analytics metadata provisioning capability”;
	2. Specifying enhancement to support monitoring the performance or working status of NWDAF which support the “analytics aggregation capability”.
3. For the deployment scenario including NWDAF with logical decomposition:
	1. Specifying enhancement to 3GPP NRMs to support management of NWDAF deployed with different logical functions including the MTLF (Model Training Logical Function) and AnLF (Analytics Logical Function) NRM;
	2. Specifying enhancement to support monitoring the performance or working status of NWDAF which only contain AnLF;
	3. Specifying enhancement to support monitoring the performance or working status of NWDAF which only contain MTLF;
	4. Specifying enhancement to support monitoring the performance or working status of NWDAF which both contain AnLF and MTLF;

Note: The NWDAF containing AnLF and/or MTLF is the NWDAF supporting logical decomposition.

## 5 Expected Output and Time scale

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| --- |
| 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 |
| 28.541 | Enhancement of 5G NRMs for MANWDAF | Dec 2023 (SA#102) |  |
| 28.552 | Define new and/or enhance existing 5G performance measurements for MANWDAF | Dec 2023 (SA#102) |  |
| 28.554 | Define new and/or enhance existing 5G KPIs for MANWDAF | Dec 2023 (SA#102) |  |
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## 6 Work item Rapporteur(s)

Niu, Yuxia, China Telecom, niuyx@chinatelecom.cn

## 7 Work item leadership

SA5

## 8 Aspects that involve other WGs

Cooperate with SA5 where needed.

## 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| China Telecom |
| CATT |
| China Unicom |
| AsiaInfo |
| China Mobile |
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