**3GPP TSG-SA5 Meeting #158 *S5-247229***

**Orlando, USA, 18 - 22 November 2024**

**Source: Nokia**

**Title: New WID on Enhanced OAM for management exposure to external consumers**

**Document for: Approval**

**Agenda Item: 6.2.3**

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 Enhanced OAM for management exposure to external consumers

Acronym:

FS\_MExpo

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 |  |  | 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\* |

## 2.2 Parent Work Item

|  |  |  |  |
| --- | --- | --- | --- |
| Parent Work / Study Items | | | |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| FS\_MExpo |  | 1020022 | New Study on Enhanced OAM for management exposure to external consumers |

### 2.3 Other related Work Items and dependencies

|  |  |  |
| --- | --- | --- |
| Other related Work /Study Items (if any) | | |
| Unique ID | Title | Nature of relationship |
| MSAC | Access control for management service | Relevant access control mechanisms for external consumers |
| NSOEU | Network & Service Operations for Energy Utilities | Related to exposing management services to energy utilities through an exposure framework |

# 3 Justification

TR 28.879 has studied a generic approach for exposing management services. The chosen exposure framework for the study is the CAPIF exposure framework. Subsequently, the study has explored how to expose management services to external MnS consumers through CAPIF. In CAPIF, the consumers of the exposed service APIs are called API invokers. The API invokers outside the PLMN trust domain are equivalent to the external MnS consumers from the SA5 perspective. Further, the entity that provides the APIs to be exposed through the CAPIF framework is the API provider domain. TR 28.879 has documented the following use cases related to the exposure of management services through CAPIF, based on CAPIF release-18 specifications:

- Registration of the MSED information into the Capif Core Function (CCF)

- Publishing of management services into the CCF

- Configuring discovery information of an external MnS consumer

- Authorization of the external MnS consumer to access the management service API

- Logging the management service API invocations to the CCF

The study identified the use case requirements and proposed the corresponding solutions to support the exposure of management services through CAPIF. Further, TR 28.879 has identified the need to define the API provider domain to enable the exposure of management services through CAPIF. The management services exposure domain (MSED) has been defined as the API provider domain for management services.

Out of the studied use cases, TR 28.879 has identified the use cases that have an impact on the 3GPP management system to support the exposure of management services through CAPIF.

Accordingly, based on conclusions and recommendations documented in TR 28.879, SA5 should start normative work on enhanced OAM for management exposure to external consumers.

# 4 Objective

The objective of this work item is to normatively specify how to expose management service to external MnS consumers through CAPIF, based on conclusions and recommendations documented in TR 28.879. The work tasks for the WID include:

WT-1: Specify the use cases and corresponding requirements for enabling the exposure of management services through the CAPIF exposure framework:

WT-1.1: Registration of the management service API provider domain information into the CCF

WT-1.2: Publishing of management services into the CCF

WT-1.3: Authorization of the external MnS consumer to access the management service APIs

WT-1.4: Logging the management service API invocations to the CCF

WT-2：Normative specification of the MSED. This will include:

WT-2-1: Definition of the MSED.

WT-2-2: Specifying the capabilities to support the use case requirements defined in WT-1.

WT-3: Specification of the solutions for exposing management services through the CAPIF exposure framework. This includes:

WT-3-1: Mapping tables from management service information to CAPIF information elements.

WT-3-2: Use case solution workflows if applicable in relation to the use cases in WT-1

WT-4: Informative specification of MSED deployment options .

## TU estimates and dependencies

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Work Task ID** | **TU Estimate**  **(Study)** | **TU Estimate**  **(Normative)** | **RAN Dependency**  **(Yes/No/Maybe)** | **SA Dependency**  **(Yes/No/Maybe)** | **Non-3GPP Dependency** |
| WT-1 | 0 | 0.3 | No | No | No |
| WT-2 | 0 | 0.65 | No | No | No |
| WT-3 | 0 | 0.25 | No | Yes | No |
| WT-4 | 0 | 0.25 | No | No | No |

# 5 Expected Output and Time scale

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| New specifications | | | | | |
| Type | TS/TR number | Title | For info  at TSG# | For approval at TSG# | Rapporteur |
| TS | 28.XYZ | Exposure of management services to external consumers through CAPIF | Sept 2025 (SA#108) | Sept 2025 (SA#108) |  |

# 6 Work item Rapporteur(s)

# 7 Work item leadership

SA WG5

# 8 Aspects that involve other WGs

None The activities in scope of WT-3 can be affected by potential Release-18 CRs that are agreed for TS 29.222.

# 9 Supporting Individual Members

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| --- |
| Supporting IM name |
| Nokia |
| Deutsche Telekom |
| AT&T |
| Verizon |
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