**3GPP TSG-SA5 Meeting #156 *S5-245981***

**Hyderabad, India, 14 - 18 October 2024** **(revision of S5-245722)**

**Source: Vodafone, Ericsson, Nokia, Nokia Shanghai Bell, Verizon, Telecom Italia,**  **Deutsche Telekom, NTT DOCOMO**

**Title: New WID on Management for MonStra**

**Document for: Agreement**

**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: WID on Management for MonStra

Acronym: Monstra-OAM

Unique identifier: XXXXX

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 |  | 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

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) |
| MonStra | SA WG1 | 1040082 | Monitoring of signalling traffic in 5G |

### 2.3 Other related Work Items and dependencies

{List here other Work Items which relate to the proposed one, such as a Work Item in an earlier Release if further enhancing the feature from the previous Release)}

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 1050028 | Security for Monitoring of signalling traffic in 5G | Security aspects |

**Dependency on non-3GPP (draft) specification:**

{This section is to be typically used to identify the IETF dependencies. Delete the header "Dependency on non-3GPP (draft) specification:" if no such dependency}

# 3 Justification

External monitoring systems are often used by mobile network operators (MNOs) to track network activity for analysis and troubleshooting purposes, and subsequently to perform diagnosis and fault analysis of their system. Such monitoring system(s) are fully under the control of the MNOs, and the monitoring is performed at signalling level. Due to the introduction of encryption of the signalling exchanged between network functions in 5G Core, there is no standardized secure interface to share signalling traffic between the 5G network and the monitoring system(s) of an MNO. For MNOs, standard monitoring capabilities are thus essential to continue performing health checks and troubleshooting of networks without additional integration costs, and without the need to standardise, in 3GPP, the internal implementation of the Network Functions.

This work was triggered by the GSMA which expressed their concerns about the monitoring of encrypted signalling traffic, looking for a mechanism that allows a copy of this traffic to be sent to a monitoring system. This concern was reflected in a Liaison Statement sent from the GSMA to 3GPP (WGs SA2, SA3 and SA5) explaining that the current encryption mechanism sending the information with (m)TLS prevents the operators of doing proper troubleshooting for operation and management procedures.

SA WG1 has agreed the feature level requirements needed for monitoring of signalling traffic in a secure way.

SA WG5 is required to fulfil the following requirement from SA1:

* + The 5G network shall enable the MNO to configure network monitoring, e.g., switching on/off per network element, selecting what type of elements and what type of signalling from these elements is the target for monitoring.

A discussion paper (S5-244686) has been endorsed by the group endorsing the creation of a new functionality to cover this requirement.

# 4 Objective

To define the use case, requirements and procedures for a new enable/disable functionality that permits an external monitoring system to request to a network function to send a secured copy of their signalling traffic, implying:

WT1 -To define the mechanism of switching on/off per network function.

WT2 -To define the Network function procedure when the Signalling Monitoring Traffic function is enabled.

WT3 -To define the report mechanism.

Additionally, this work may consider additional topics, and coordinate with other WGs (SA3) as needed basis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Work Task ID | TU Estimate(Study) | TU Estimate(Normative) | RAN Dependency(Yes/No/Maybe) | SA Dependency(Yes/No/Maybe) |
| WT-1 |  | *0.5* | No | Yes |
| WT-2 |  | *0.5* | No | Yes |
| WT-3 |  | *0.5* | No | Yes |

# 5 Expected Output and Time scale

***{If this WID covers both stage 2 and stage 3, clearly indicate the different completion dates.}***

|  |
| --- |
| 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 |
| TS | TS.XXX | Signalling Traffic Monitoring Management(Stage 1, stage 2, and stage 3) | TSG #106 | TSG #106 |  |
|  |  |  |  |  |  |

{Note 1: Only TSs may contain normative provisions. Study Items shall create or impact only TRs.
"Internal TR" is intended for 3GPP internal use only whereas "External TR" may be transposed by OPs.}

{Note 2: The first listed Rapporteur is the specification primary Rapporteur. Secondary Rapporteur(s) are possible for particular aspect(s) of the TS/TR. In this case, their responsibility has to be provided as "Remarks".}

|  |
| --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# 6 Work item Rapporteur(s)

# 7 Work item leadership

SA5

# 8 Aspects that involve other WGs

SA3 to specify the security aspects.

# 9 Supporting Individual Members

{At least 4 supporting Individual Members are needed. There is an expectation that these companies will provide resources to progress the work. Note that having 4 supporting companies is a necessary but not sufficient condition: the usual TSG approval process by consensus is needed for the WID approval}

|  |
| --- |
| Supporting IM name |
| Vodafone |
| Ericsson |
| Nokia |
| Nokia Shanghai Bell |
| Verizon |
| Telecom Italia |
| Deutsche Telekom |
| NTT DOCOMO |