3GPP TSG SA WG5 Meeting 141-e S5-221046

**e-meeting, 17 -26 January 2022**

**Source: Nokia**

**Title: Including individual PM, KPI, trace and QoE statistics and predictions as additional MDA types**

**Document for: Approval**

**Agenda Item: 6.4.15**

# 1 Decision/action requested

This contribution is for approval.

# 2 References

[1] TR 28.809 Management and orchestration; Study on enhancement of Management Data Analytics (MDA)

# 3 Rationale

This contribution introduces the notion of analytics, i.e., statistics and predictions, related to individual PM, KPI, trace and QoE data enabling flexibility for an MDA MnS consumer to request MDA. The MDA MnS consumer can then request individual PM, KPI, trace or QoE analytics independently from any of the use cases studied in [1] and not neccessarily provided as an analytics data in a group of MDA output related to a specific use case.

# 4 Detailed proposal

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| **1st Modified Section** |

### 7.3.1 MDA request and control

#### 7.3.1.1 Description

The MDA request and control allow any authorized MDA MnS consumer to request management data analytics.

#### 7.3.1.2 Use case

The MDA MnS consumer can request the MDA MnS producer to provide MDA output for a list of specified type of analytics, i.e., MDA type, which corresponds to a MDA capability, which is to support analytics for a set of data or analytics for a certain PM, KPI, trace data, QoE. The MDA MnS consumer may introduce control attributes related to the MDA output with respect to the geographic location (i.e., area scope) and/or the target objects, e.g., managed elements, time schedule for obtaining a MDA output, time conditions related to the preparation of MDA output, and potential filter conditions to be met before a MDA output is made available, e.g., load or delay threshold crossing related to a target object. The geographical location indicates an area of interest for obtaining MDA output and target objects include affected objects or objects of interest for obtaining MDA output.

The MDA MnS consumer may control the MDA output attributes related to, e.g., time schedule, geographical location, target objects, etc., and has the capability to modify them at any point in time. The MDA MnS consumer can request the MDA MnS producer to generate an MDA output that contains numeric output results, e.g., average, normal distribution, etc., recommendation options, e.g., potential handover target cells, or root case analysis, e.g., alarm prediction.

The MDA MnS consumer can be informed with an acknowledgment if the request was successful. If the request was not successful, the consumer is informed about potential errors indicating the reasons. The MDA MnS consumer can also deactivate the MDA reporting control request once it is no longer needed.

#### 7.3.1.3 Requirements

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| **Requirement label** | **Description** | **Related use case(s)** |
| **REQ-MDA-CONT-01** | The MDA MnS producer shall have capability to allow any authorized MDA MnS consumer to request MDA output, while indicating its selection on the MDA type. | **All use cases** |
| **REQ-MDA-CONT-02** | The MDA MnS producer shall have the capability to allow any authorized MDA MnS consumer to request MDA output, while indicating its selection on the reporting time schedule. | **All use cases** |
| **REQ-MDA-CONT-03** | The MDA MnS producer shall have the capability to allow any authorized MDA MnS consumer to request MDA output, while indicating its selection on geographic location and/or the target objects if applicable. | **All use cases** |
| **REQ-MDA-CONT-04** | The MDA MnS producer shall have the capability to allow any authorized MDA MnS consumer to request MDA output, while indicating its selection on the time schedule related to MDA results. | **All use cases** |
| **REQ-MDA-CONT-05** | The MDA MnS producer shall have the capability to allow any authorized MDA MnS consumer to modify the attributes related to the requested MDA output. | **All use cases** |
| **REQ-MDA-CONT-6** | The MDA MnS producer shall have the capability to allow any authorized MDA MnS consumer to specify filter conditions on target objects based on threshold crossing for MDA output when this is applicable. | **All use cases** |

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| **End of Modified Sections** |