3GPP TSG SA WG5 Meeting 139-e S5-215276

electronic meeting, online, 11- 20 October 2021

**Source: Nokia**

**Title: Add MDA Production and Reporting Overview**

**Document for: Approval**

**Agenda Item: 6.4.18**

# 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 MDA concepts overview, which can be applicable to all analytics use cases described in [1].

# 4 Detailed proposal

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| **1st Modified Section** |

## 4.Y MDA Production and Reporting Overview

MDA MnS producer is responsible for providing analytics for a wide variety of use cases [1]. Analytics relates with the analysis on data to produce an insight that helps improve the quality of a decision. This can be applicable to multiple use cases. Analytics use cases concetrate on a specific problem of a hypothesis for which analysis may be undertaken.

Several MDA MnS consumers may request to receive MDA reports from an MDA MnS producer via the means of the MDA MnSvia an API that facilitates interaction among the MDA MnS producer and MDA MnS consumer.

The MDA MnS producer creates upon receiving a MDA request from a MDA MnS consumer, a MDA reporting control that allows the MDA MnS consumer to control attributes related to the target, time scheduling and other filers related to MDA. Each MDA reporting control can be associated with a single MDA MnS consumer, i.e., each MDA MnS consumer uses a different MDA reporting control.

The MDA report may include the analytics outputs,. The analytics outputs may contain numeric results, e.g., average value, Cumulative Distribution Function (CDF), etc., and/or recommendation options with respect to the particular use case and/or root cause analysis, e.g., alarm prediction.

The MDA reporting control relates to one or more MDA model types. The MDA model consist of a proprietary MDA model or algorithm, e.g., ML model, rule-based model, etc., that is ready to compute analytics based on the collected input data.

The MDA inference model produces statistics or predictions for numeric results or recommendation options or root cause analysis results. A MDA model may reside inside a Management Data Analytics Function (MDAF), but this is not essential, i.e., a MDAF may also act as a proxy, as illustrated in Figure x.y. The way a MDAF is formulated is implementation specific. The preparation and maintainance of the MDA model, e.g., training, may be performed in the MDAF or outside at another entity.



MDA Model

Management Data Analytics Service



Analytics Reporting Control



Management Data Analytics Functions

Figure x.y: Examples of MDAF depolyment: (i) MDAF with MDA model contained, (ii) MDAF as proxy with the MDA model residing outside.

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| **End of Modified Sections** |