3GPP TSG SA WG5 Meeting 142-e S5-223345

**e-meeting, 9 -17 May 2022**

**Source: Nokia**

**Title: PM-based and KPI-based analytics outputs**

**Document for: Approval**

**Agenda Item: 6.6.5**

# 1 Decision/action requested

This contribution is for approval.

# 2 References

[4] 3GPP TS 28.552: "Management and orchestration; 5G performance measurements".

[5] 3GPP TS 28.554: "5G end to end Key Performance Indicators (KPI)".

[19] 3GPP TS 28.622: "Telecommunication management; Generic Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)".

# 3 Rationale

This contribution introduces PM-based and KPI-based MDA types in order to enable the MDA MnS consumer to request MDA output related to statistics or prediction of a specific PM as per TS 28.552 or KPI as per TS 28.554. Typical use cases may include, e.g., traditional SON function related to load balancing, energy saving, where predictions on the radio resource utilization as per clause 5.1.1.2 TS 28.552 would be sufficient. Other use cases may also need single PM/KPI predictions or statistics. In addition, PM/KPI-based analytics capability may support future use case.

# 4 Detailed proposal

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| **1st Modified Section** |

## 8.x PM/KPI-based analytics outputs

Since MDA can be related to specific PMs as per TS 28.552 [4] or KPIs TS 28.554 [5]. In this case MDA considers as input data, prior data, or historic data only related to a PM or KPI, which can be used to produce analytics, i.e., statistics or predictions. For instance, historic data related to a PM. e.g., UE throughput data, can be used to predict the expected throughput. Typical use cases may include, e.g., traditional SON functions related to load balancing, energy saving, where predictions on the radio resource utilization as per clause 5.1.1.2 TS 28.552 would be sufficient.

PM/KPI-based analytics are already used in the existing use cases, e.g., for the UE throughput use case the UL/DL throughput for network and Network Slice Instance (KPI as per TS 28.554) and RAN UE Throughput (KPI as per TS 28.554). Similarly, other use cases use PM/KPIs including network slice traffic prediction, SLS e2e latency, network slice load, energy saving and handover optimization.

##### 8.x.1 MDA type

The MDA type for these can follow the conventional PM/KPI way as specified in TS 28.622 [19]: performanceMetrics.statistics and performanceMetrics.predictions

##### 8.x.2 Enabling data

The enabling data for PM/KPI-based analysis relies on the prior data from the specified single PM or KPI source.

##### 8.x.3 Analytics output

The analytics output is a single information element related to statistics or prediction for the specific requested PM or KPI.

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| **End of Modified Section** |