**3GPP TSG-SA5 Meeting #143-e *S5-223579***

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

**Source: Huawei**

**Title: pCR TR 28.925 Add issue on illustration of using MnS in management reference model in TS 32.101**

**Document for: approval**

**Agenda Item: 6.5.8.1**

# 1 Decision/action requested

***The group is asked to discuss and approval.***

# 2 References

[1] 3GPP draft TR 28.925: “Management and orchestration; Study on enhancement of service based management architecture v0.4.0”.

[2] 3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".

# 3 Rationale

SBMA concept provides the interaction paradigm between MnS producer and MnS Consumer without indicating the related entities. In real deployment scenairos, there are management functions provided by different suppliers. It’s necessary to study and show how SBMA concept could be utilized in the real deployment scenario. For example, for the interaction between NM and EM in the context of 5G management, NM behaves as MnS consumer and EM behaves as MnS Producer.

It proposes to add key issue "illustration of using MnS in management reference model in TS 32.101" to address the following FS\_eSBMA\_WoP#1.

* *Study on illustration of how management reference model in TS 32.101 can be supported with management services defined in SBMA specified in TS 28.533.*

# 4 Detailed proposal

It proposes to make the following changes to TR 28.925[1].

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| **1st Change** |

## 4.X Issue# X: illustration of using MnS in management reference model in TS 32.101

### 4.X.1 Description

In TS 32.101[3], Clause 5.1 illustrates themanagement reference model which shows the Operations Systems interfacing with other systems. An Operations System supports management interfaces to other systems.



Figure 1: Management reference model

A number of management interfaces in a PLMN are identified in figure 1, namely:

1) between the Network Elements (NEs) and the Element Manager (EM) of a single PLMN Organisation;

2) between the Element Manager (EM) and the Network Manager (NM) of a single PLMN Organisation;

NOTE: In certain cases, the Element Manager functionality may reside in the NE in which case this interface is directly from NE to Network Manager). These management interfaces are given the reference name Itf-N and are the primary target for standardization.

3) between the Network Managers and the Enterprise Systems of a single PLMN Organisation;

4) between the Network Managers (NMs) of a single PLMN Organisation;

4a) between the Domain Managers (DMs) of a single PLMN Organisation.

5) between Enterprise Systems & Network Managers of different PLMN Organisations;

5a) between the Domain Managers (DMs) of different PLMN Organisations.

6) between Network Elements (NEs).

7) between the Network Management Layer Service (NMLS) and the Network Manager (NM).

IRPs may be implemented at interfaces 2, 3, 4, 5 and 7.

TS 28.533[2] introduces the Service Based Management Architecture (SBMA). The fundamental building block of the Service Based Management Architecture (SBMA) is the Management Service (MnS). A MnS is a set of offered capabilities for management and orchestration of network and services. An MnS producer offers its services via a standardized service interface composed of individually specified MnS components (MnS component type A, B, C).

Analysis:

1. In TS 32.101, there is clearly showing the entities and the corresponding interfaces in the management reference model.
2. In TS 28.533, the interaction of paradigm of MnS producer and MnS Consumer is defined without indicating the entities.
3. The entities in TS 32.101 can be illustrated using the MnS consumer and MnS producer according to the way of using interface IRPs.

### 4.X.2 Potential solutions

There are the following aspects to be considered in the solution of using MnS in management reference model in TS 32.101.

1. The management services may be used to support the interoperability between different entities in TS 32.101 (e.g. Enterprise Systems, NM, DM, EM etc.) in the context of 5G managemenet.
2. It’s not possible that one set of management services could apply for the interoperability between different entities. Different set of management services may be used for the interoperabilites between different entities. For example, the set of management services supporting interoperability between EM and NM may be different from the set of management services for interoperability between NM and enterprise systems.

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| **End of Changes** |