**3GPP TSG-SA5 Meeting #141-eS5-221198r01**

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

**Source: Alibaba**

**Title: Solution on the relation to other SA5 work/study item**

**Document for: Approval**

**Agenda Item: 6.5.2**

# 1 Decision/action requested

***The group is asked to agree the text in detailed proposal.***

# 2 References

Not applicable

# 3 Rationale

This contribution proposes solution on the relation to other SA5 work/study item.

# 4 Detailed proposal

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| **First change** |

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] TM Forum TMF622 Product Order API REST Specification

[3] TM Forum TMF641 Service Ordering API

[4] TM Forum TMF652 Resource Order Management API

[5] 3GPP TS 28.531: "Management and orchestration; Concepts, use cases and requirements"

[6] 3GPP TS 28.202: "Charging management; Network slice management charging in the 5G System (5GS); Stage 2"

[7] 3GPP TR23.700-99 “Study on Network Slice Capability Exposure for Application Layer Enablement (NSCALE)”

[8] 3GPP TS23.434 “Service Enabler Architecture Layer for Verticals (SEAL); Functional architecture and information flows.”

[9] 3GPP TS 28.541: "Management and orchestration; 5G Network Resource Model (NRM); Stage 2 and stage 3"

[x] 3GPP TR 28.817: "Management and orchestration; Study on access control for management service”

[y] 3GPP TS 28.622: "Management and orchestration; Generic Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)”

[z] 3GPP TS 28.623: "Management and orchestration; Generic Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions”

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| **Second change** |

## 5.5 Key Issue #5: Relation to other SA5 work/study items

### 5.5.1 Description

The work conducted in the FS\_NSCE is related to other Rel-17 SI/WIs, including:

* MSAC (Management Service Access Control), on the access control aspects inherent to exposure to 3rd parties. NSP shall expose capabilities to NSCs in a controlled, secure and auditable way.
* OAM\_NPN (Management of Non-Public Networks), when the network slice is used for the provisioning of a PNI-NPN. In this case, the modes 1b defined in [3] applies.
* eMEMTANE (Management of enhanced tenant concept), on the need to associate tenants to different NSCs, and manage the corresponding information in the NRM.
* 5GDMS (Discovery of management services in 5G), on the need for NSCs to discover capabilities available for consumption.

The work in FS\_NSCE is to leverage outcomes from the Rel-17 study/work items which are listed above. It seems these study/work items provides most (if not all) the ingredients for the network slice capability exposure topic, so the mission of FS\_NSCE should be to find out the recipe to combine them and provide overall exposure picture.

### 5.5.2 Potential solutions

#### 5.5.2.1 Potential solution #1: Relation to MSAC

This clause describes the relation to MSAC. How the MSAC takes effect in the context of management capability exposure should be discussed based on two different use cases, i.e. exposure via BSS, exposure without going through BSS.

In the case that exposure always goes through BSS, once the NSC successfully makes the contract with the NSP regarding management capability exposure via BSS (e.g. via Service Catalog), the NSP\_BSS generates the information of the exposed MnSs the NSC ordered and sends the information to the OSS\_SML together with the service order. Based on the information, the SML generates the access token and send it back to the BSS for authorizing the customer for access certain exposed MnS.

In the case that exposure happens without going through BSS, once the NSC successfully makes the contract with the NSP regarding management capability exposure via BSS (e.g. via Service Catalog), the NSP\_BSS generates the information of the exposed MnSs the NSC ordered and sends the information to the OSS\_SML together with the service order. Based on the information, the SML generate the access token and send to the proper authorization producer which take control of the authorization of the NSC. In this case, the product ordering may be conducted via the interaction with an embedded BSS functionality on the OSS.

#### 5.5.2.2 Potential solution #2: Relation to 5GDMS

This clause describes the relation to 5GDMS. The relationship should be discussed based on two different use cases, i.e. exposure via BSS, exposure without going through BSS. In general, NSCE studies how to enhance MnS discovery service in order to allow external customer to discovery eMnS.

In the case that exposure interface via BSS is used, MnS data for exposed MnS is generated by the NSP\_OSS and is registered to an external MnS discovery service producer for external customer or an internal MnS discover service producer for external customer. If internal MnS discovery service producer for external customer is applied, the MnS discovery service producer for external customer can be within the same MnF where the MnS discovery service producer locates. Alternatively, the MnS discovery service producer for external customer may be located in a dedicated MnF (e.g. EGMF). Once the NSC successfully makes the contract with the NSP regarding management capability exposure, the NSP\_BSS obtains the MnS data for exposed MnS from either external or internal and identifies the MnS producer for external customer on behalf of the NSC.

In the case that exposure interface via OSS is used, MnS data for exposed MnS is generated by the NSP\_OSS and is registered to an external MnS discovery service producer for external customer or an internal MnS discover service producer for external customer. If internal MnS discovery service producer for external customer is applied, this producer can be within the same MnF where the MnS discovery service producer locates. Alternatively, the MnS discovery service producer for external customer may be located in a dedicated MnF (e.g. EGMF). Once the NSC successfully makes the contract with the NSP regarding management capability exposure, the NSC gets access to the internal or external MnS discovery service producer for external customer in order to get MnS data for exposed MnS.

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| **End of changes** |