**3GPP TSG-SA5 Meeting #142-eS5-222756**

**e-meeting, 4 - 12 April 2022**

**Source: Huawei, Orange, Ericsson, Telefónica**

**Title: pCR 28.824 Describe possible solution for EGMF**

**Document for: Approval**

**Agenda Item: 6.5.22**

# 1 Decision/action requested

***For approval***

# 2 References

[1] 3GPP TR 28.824 V0.5.0 Study on network slice management capability exposure

# 3 Rationale

This contribution describes potential solutions where network slice management capability is exposed via the Common API Framework for 3GPP Northbound APIs.

TS 23.222 Annex B.0 describes how a service API provider may use the Common API Framework (CAPIF).



Figure 3-1: Functional model for the CAPIF

# 4 Detailed proposal

This contribution proposes to make the following changes in [1].

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| **1st 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"

[10] 3GPP TS 28.537: "Management and orchestration; Management capabilities"

[11] 3GPP TS 28.533: "Management and orchestration; Architecture framework"

[12] TM Forum TMF633 Service Catalogue Management API

[13] TM Forum TMF620 Product Catalogue Management API

[x1] 3GPP TS 23.222: "Functional architecture and information flows to support Common API Framework for 3GPP Northbound APIs; Stage 2"

[x2] 3GPP TS 28.532: "Management and orchestration; Generic Management Service"

[x3] 3GPP TS 28.623: "Telecommunication management; Generic Network Resource Model (NRM) Integration Reference Point (IRP); Solution Set (SS) definitions"

[x4] 3GPP TS 28.622: " Telecommunication management; Generic Network Resource Model (NRM) Integration Reference Point (IRP) Information Service (IS)"

[x5] 3GPP TS 28.201: "Charging management; Network slice performance and analytics charging in the 5G System (5GS); Stage 2"

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| **2nd change** |

## 7.x Potential solutions for network slice management capability exposure via CAPIF

### 7.x.1 Exposure via CAPIF alternative 1

This clause describes a potential solution where network slice management capability is exposed via the Common API Framework for 3GPP Northbound APIs, see TS 23.222[x1].

 

Figure 7.x.1-1: Exposure via CAPIF alternative 1

In this alternative, network slice management capability provides faultMnS, fileDataReportingMnS, heartbeatNtf, perfMnS, provMnS, and streamingDataMnS as specified in in TS 28.532 [x2].

Editor’s note: Whether network slice management exposure is affected by transforming the management service API to another service API is FFS.

### 7.x.2 Exposure via CAPIF alternative 2

This clause describes a potential solution where network slice management capability is used in conjunction with a CAPIF core function (see TS 23.222[x1]) to expose management services to MnS consumers.

 

Figure 7.x.2-1: Exposure via CAPIF alternative 2

In this alternative, network slice management capability consumes the interfaces at reference points CAPIF-3, CAPIF-4, and CAPIF-5 as defined in TS 23.222[x1]. It may be necessary to extend CAPIF-3/4/5 as defined in TS 23.222[x1] to support exposure of network slice management services.

In this alternative, network slice management capability provides the interfaces at reference point CAPIF-2/2e. It may be necessary to extend CAPIF-2/2e as defined in TS 23.222[x1] to support exposure of network slice management services and authentication of MnS consumers.

In this alternative, MnS Consumers utilize the interfaces at reference point CAPIF-1/1e. It may be necessary to extend CAPIF-1/1e as defined in TS 23.222[x1] to support exposure of network slice management services and authorization/authentication of MnS consumers.

Editor’s note: Whether network slice management exposure is affected by transforming the management service API to another service API is FFS.

### 7.x.3 Exposure via CAPIF alternative 3

This clause describes a potential solution where network slice management capability implements a Common API Framework for 3GPP Northbound APIs (see TS 23.222[x1]) to expose management services to MnS consumers.

 

Figure 7.x.3-1: Exposure via CAPIF alternative 3

In this alternative, network slice management capability may internally implement the interfaces at reference points CAPIF-3, CAPIF-4, and CAPIF-5 as defined in TS 23.222[x1] or may use non-standardized interfaces.

In this alternative, network slice management capability provides the interfaces at reference point CAPIF-1/1e. It may be necessary to extend CAPIF-1/1e as defined in TS 23.222[x1] to support authorization/authentication of MnS consumers and discovery of MnS producers.

In this alternative, network slice management capability provides the interfaces at reference point CAPIF-2/2e. It may be necessary to extend CAPIF-2/2e as defined in TS 23.222[x1] to support exposure of network slice management services and authentication of MnS consumers.

Editor’s note: Whether network slice management exposure is affected by transforming the management service API to another service API is FFS.

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| **End of changes** |