**3GPP TSG-SA5 Meeting #155 *S5-242880***

Jeju, South Korea, 27 - 31 May 2024

**Source: Nokia**

**Title: Rel-19 pCR TR 28.879 Add use case for authorization of the external MnS consumer to access the management service API**

**Document for: Approval**

**Agenda Item: 6.19.21**

# 1 Decision/action requested

***In this box give a very clear / short /concise statement of what is wanted.***

# 2 References

[1] 3GPP TR 28.879, " Study on OAM for service management and exposure to external consumers".

# 3 Rationale

After the external MnS consumer has discovered the available management services (now service APIs) at the CCF, the external MnS consumer should be able to proceed to request authorization information to consume/invoke the management service at the MnS producer. Accordingly, this pCR proposes to add a new use case, i.e., the authorization of the external MnS consumer to access the management service API to clause 5.1 of TR 28.879 [1].

# 4 Detailed proposal

It is proposed that the following changes be made to clause 5.1 of TR 28.879 [1].

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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] 3GPP TS 28.533: "Management and orchestration; Architecture Framework".

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

[4] 3GPP TS 28.537: "Management and orchestration; Management capabilities."

[5] 3GPP TS 23.222: "Functional architecture and information flows to support Common API Framework for 3GPP Northbound APIs; Stage 2"

[6] SP-231669: "LS on collaboration and alignment of 3GPP defined application enablers with GSMA Open Gateway".

[7] 3GPP [TS 23.434](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3587): "Service Enabler Architecture Layer for Verticals (SEAL); Functional architecture and information flows".

[8] 3GPP [TS 23.255](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3843): "Application layer support for Vehicle-to-Everything (V2X) services; Functional architecture and information flows".

[9] 3GPP [TS 23.286](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3562): "Application layer support for Uncrewed Aerial Systems (UAS) services; Functional architecture and information flows".

[10] 3GPP [TS 23.545](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3948): "Application layer support for Factories of the Future (FF) ".

[11] 3GPP [TS 23.542](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=4156): "Application layer support for Personal IoT Networks".

[12] 3GPP [TS 23.554](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3818): "Application architecture for MSGin5G Service; Stage 2".

[13] 3GPP [TS 29.222](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3450): "Common API Framework for 3GPP Northbound APIs; stage 3".

[14] 3GPP [TS 33.122](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3420): "Security aspects of Common API Framework (CAPIF) for 3GPP Northbound APIs".

[15] "The Ecosystem for Open Gateway NaaS API Development", white paper, June 2023 [[link](https://www.gsma.com/solutions-and-impact/gsma-open-gateway/wp-content/uploads/2023/05/The-Ecosystem-for-Open-Gateway-NaaS-API-development.pdf)]

[16] "GSMA Operator Platform Group – Requirements and Architecture", version 5.0, July 2023 [[link](https://www.gsma.com/futurenetworks/wp-content/uploads/2023/07/OPG.02-v5.0-Operator-Platform-Requirements-and-Architecture.pdf)]

[17] 3GPP TS 28.532: "Management and orchestration; Generic management services".

[18] 3GPP [TS 28.531](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3274): "Management and orchestration; Provisioning"

[19] 3GPP [TS 23.435](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=4092): "Procedures for Network Slice Capability Exposure for Application Layer Enablement Service"

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| **Second Change** |

## 5.1 Exposure of management services

### 5.1.Q Use case #<W>: Authorization of the external MnS consumer to access the management service API

#### 5.1.Q.1 Description

After the external MnS consumer has discovered the available management services (now service APIs) at the CCF, the external MnS consumer proceeds to request the CCF for the authorization information to access the service API (see clause 8.11 of TS 23.222[X] and clause 6.5.2.3 of TS 33.122[Y]) via the CAPIF-1e interface. This authorization information contains the actions (e.g., ALLOW, DENY) the external MnS consumer can perform on the discovered MnS producer. These actions might differ from what the external MnS consumer is authorized to discover from the CCF(depending on the configured discovery policy). However, currently, the CCF does not have this authorization information in order to generate the access token to grant external MnS consumers accessto the discovered service APIs (i.e., the management services).

Furthermore, after receiving the authorization information from the CCF, the external MnS consumer will proceed to access the management service at the MnS producer (the MnS producer is the CAPIF API exposing function (AEF)) via the CAPIF-2e interface. This implies that the MnS producer should be able to support the CAPIF-2e interface; however, it is safe to assume that this is already supported.

#### 5.1.Q.2 Potential requirements

**PREQ-FS\_MExpo-01** The 3GPP management system should provide the CCF with the authorization information for the different external MnS consumers.

Note: This authorization information will enable the CCF to generate the access token so that the external MnS consumer can access the management service on the MnS producer.

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| **End of Changes** |