**3GPP TSG-SA5 Meeting #157 *S5-245901***

Hyderabad, IN, 14 - 18 October 2024

**Source: Huawei, China Mobile, Ericsson**

**Title: New charging solution for IMS network capabilities exposure**

**Document for: Approval**

**Agenda Item: 7.5.3**

# 1 Decision/action requested

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

# 2 References

[1] 3GPP TR 28.851: "Study on charging aspects of next generation real time communication services phase 2".

# 3 Rationale

This contribution proposes to add solution of Topic #3 "Support IMS network capabilities exposure" in 3GPP TR 28.851 [1] V0.1.0.

# 4 Detailed proposal

\* \* \* \* 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 23.501: "System Architecture for the 5G System (5GS); Stage 2".

[3] 3GPP TS 23.502: "Procedures for the 5G System; Stage 2".

[4] 3GPP TS 23.503: "Policy and charging control framework for the 5G System (5GS); Stage 2".

[5] 3GPP TS 23.228: "IP Multimedia Subsystem (IMS); Stage 2".

[6] 3GPP TS 22.011: "Service accessibility".

[7] 3GPP TS 22.156: "Mobile Metaverse Services".

[8] 3GPP TS 26.114: "IP Multimedia Subsystem (IMS); Multimedia Telephony; Media handling and interaction".

[9] 3GPP TR 23.700-77: "Study on system architecture for next generation real time communication services Phase 2".

[10] 3GPP TS 32.255: "Telecommunication management; Charging management; 5G Data connectivity domain charging; stage 2".

[11] 3GPP TS 32.260: "Telecommunication management; Charging management; IP Multimedia Subsystem (IMS) charging".

[12] 3GPP TS 32.275: "Telecommunication management; Charging management; MultiMedia Telephony (MMTel) charging".

[X] 3GPP TS 32.254: "Telecommunication management; Charging management; Exposure function northbound Application Program Interfaces (APIs) charging".

\* \* \* \* Second change \* \* \* \*

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

API Application Programming Interface

NEF Network Exposure Function

\* \* \* \* Third change \* \* \* \*

### 5.3.4 Possible solutions

#### 5.3.4.1 Solution #1 Reuse of Northbound API converged charging

##### 5.3.4.1.1 General

Solution#1 addresses Key Issue #1a and #1b. It is based on the Northbound API converged charging specified in 3GPP TS 32.254 [X].

##### 5.3.4.1.2 Description

The Northbound API converged charging architecture specified in clause 4.4 of 3GPP TS 32.254 [X] is applicable for IMS network exposure.

The Northbound API charging principles specified in clause 5.1 of 3GPP TS 32.254 [X] is applicable for IMS network exposure.

The Northbound API converged charging scenarios specified in clause 5.4 of 3GPP TS 32.254 [X] are applicable for IMS network exposure. For flows see TS 32.254 [X] clause 5.4.2 where the external NF/AF are invoking the NEF, and the NEF uses IMS for the API fulfilment.

The definition of charging information for the Northbound API converged charging specified in clause 6 of 3GPP TS 32.254 [X] is applicable for IMS network exposure. The specific charging information of IMS network exposure, e.g., the calling number and the called number, are contained in "API Content" IE specified in Table 6.3.1.4.1 of 3GPP TS 23.254 [X]. The API Target Network Function would be IMS Node. The external NF/AF would be considered the tenant, i.e. the API Provider Id would be stored in the Tenant Identifier.

\* \* \* \* End of changes \* \* \* \*