**3GPP TSG-SA5 Meeting #156 *S5-244519d1***

Maastricht, Netherlands, 19 - 23 August 2024

**Source: Huawei, China Mobile**

**Title: Rel-19 pCR 28.851 Introduce the background for FS\_NG\_RTC\_Ph2\_CH**

**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 background for charging aspects of next generation real time communication services phase 2 which is initiated by SP-240982 [1].

S5-243015 was endorsed in SA5#155 meeting. This tdoc is the resubmission of S5-243015.

# 4 Detailed proposal

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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".

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

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

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

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| **2nd Change** |

# 4 Overview

## 4.1 General

The charging aspects for IMS has been specified in 3GPP TS 32.260 [x], TS 32.255 [y] and TS 32.275 [z].

3GPP SA4 introduced the data channel for IMS network in Rel-16 in TS 26.114 [8]. In Rel-18, SA2 specified the architecture, interfaces and procedures of IMS data channel and AR communication documented in TS 23.228 [5].

## 4.2 Networks functionality and architecture of IMS data channel

Figure 4.2-1 and Figure 4.2-2 show the architecture of IMS data channel depicted in clause AC.2 of 3GPP TS 23.228 [5]. In Figure 4.2-1, the service-based Media Function is introduced. In Figure 4.2-2, the existing MRF is enhanced.



Figure 4.2-1: Architecture option of IMS supporting DC usage with MF



Figure 4.2-2: Architecture option of IMS supporting DC usage with MRF

Three new network functions are introduced for IMS data channel:

* Data Channel Application Repository (DCAR): It stores the verified data channel applications which are retrieved by the DCSF when required.
* Data Channel Signaling Function (DCSF): It’s the signalling control function that provides data channel control logic.
* Media Function (MF): It provides the media resource management and forwarding of data channel media traffic.

The existing MRF can be enhanced to provide the same functionalitites as the MF.

## 4.3 Data channel application download

Figure 4.3-1 shows the data channel workflow depicted in clause 6.2.10.1 of 3GPP TS 26.114 [8]. The local UE A and the remote UE B can download the data channel application required download through the interaction with local DCSF over the bootstrap data channels.



Figure 4.3-1: Data Channel Workflow

The bootstrap data channel setup signalling procedure depicted in clause AC.7.1 of 3GPP TS 23.228 [5] also described how the data channel application is downloaded to the UEs in an IMS session.

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| **End of changes** |