**3GPP TSG-SA5 Meeting #155 *S5-243015d1***

Jeju, Korea, 27 - 31 May 2024

**Source: Huawei**

**Title: Rel-19 Discussion paper on background for FS\_NG\_RTC\_Ph2\_CH**

**Document for: Discussion**

**Agenda Item: 7.5.3**

# 1 Decision/action requested

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

# 2 References

[1] S5-241835: "New SID 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 S5-241835 [1].

# 4 Detailed proposal

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| **1st Change** |

# 4 Background

## 4.1 General

The charging aspects for IMS has been specified in 3GPP TS 32.260 [X5] and TS 32.255 [X6] and TS 32.275 [X7].

3GPP SA4 introduced the data channel for IMS network in Rel-16 in TS 26.114 [X8]. In Rel-18, SA2 specified the architecture, interfaces and procedures of IMS data channel and AR communication documented in TS 23.228 [X2].

## 4.2 Networks functionality and architecture of IMS data channel

Figure 4.2-1 and Figure 4.2-1 show the architecture of IMS data channel depicted in clause AC.2 of 3GPP TS 23.228 [X2]. 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 [X4]. 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 [X2] also described how the data channel application is downloaded to the UEs in an IMS session.

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| **End of changes** |