**3GPP TSG-CT WG1 Meeting #146C1-24xxxx**

**Online, 22– 26 January 2024 Revision of C1-240120**

**Source: China Mobile, China Southern Power Grid Co**

**Title: Update ADC shutdown procedure**

**Spec: 3GPP TS 24.186 v1.0.0**

**Agenda item: 18.3.8**

**Document for: Agreement**

**1. Introduction**

This pCR proposes to update application data channel termination procedure to add one more procedure and keep alignment both sides as well.

In addition, it is suggest to align the reINVITE and re-INVITE.

**2. Reason for Change**

RFC8864 only mentions removing DC media attribute associated with the closed DC, while there is another way to close the DC by setting the UDP port number of the data channel media description to zero when no other DCs in the same SCTP association.

**3. Proposal**

It is proposed to agree the following changes to 3GPP TS 24.186.

\* \* \* First Change \* \* \* \*

### 9.3.2 Originating side

#### 9.3.2.1 Procedures at the UE

##### 9.3.2.1.1 General

The UE shall only initiate an MMTel session with an IMS data channel if the UE has determined that the UE and the network supports the IMS data channel capability.

The policy related to the UE supporting the IMS data channel can be provided by the network to the UE using e.g. OMA-DM with the management objects specified in 3GPP TS 24.275 [11] or UICC configuration, as specified in clause 9.2.1.1. When the UE is configured by network with configuration for IMS data channel capability support, then the UE may setup the IMS data channel.

If the UE is configured with IMS\_DC\_configuration node specified in 3GPP TS 24.275 [11] and:

a) DC\_allowed leaf indicates that IMS data channel is not allowed, the UE shall not include data channel capability indication and data channel related media description in SDP offer;

b) DC\_allowed leaf indicates that IMS data channel is allowed, and:

1) if DC\_Setup\_Option leaf is configured and indicates the IMS data channel is to be setup simultaneously while establishing an MMTel session, the UE shall include the bootstrap data channel related media description in SDP offer within the initial INVITE request as described in clause 9.3.2.1.2;

2) if DC\_Setup\_Option leaf is configured and indicates the IMS data channel is to be setup after an MMTel session is established, the UE shall generate a re-INVITE request for the bootstrap data channel setup and include the bootstrap data channel related media description in SDP offer as described in clause 9.3.2.1.3.

\* \* \* Next Change \* \* \* \*

##### 9.3.2.1.3 IMS data channel setup in conjunction with MMTel session modification

If a UE determines to establish a bootstrap data channel within an existing MMTel session by configuration as described in clause 9.3.2.1.1, the UE:

1) shall generate a re-INVITE request in accordance with 3GPP TS 24.229 [9] and 3GPP TS 24.173 [10];

2) shall include the media feature tag defined in IETF RFC 5688 [5] for supported streaming media type with +sip.app-subtype="webrtc-datachannel" as specified in 3GPP TS 26.114 [4] in the Contact header field;

3) may include an Accept-Contact header field containing the "sip.app-subtype" media feature tag defined in IETF RFC 5688 [5] with a value of "webrtc-datachannel" as specified in 3GPP TS 26.114 [4]; and

4) shall include an updated SDP offer that contains a data channel media description for the bootstrap data channel information according to 3GPP TS 26.114 [4].

If a UE wants to establish an application data channel within an existing MMTel session and when the UE has an established bootstrap data channel associated with the MMTel session available, the UE:

1) shall generate a re-INVITE request in accordance with 3GPP TS 24.229 [9] and 3GPP TS 24.173 [10];

2) shall include the media feature tag defined in RFC 5688 [5] for supported streaming media type with +sip.app-subtype="webrtc-datachannel" as specified in 3GPP TS 26.114 [4] in the Contact header field;

3) may include an Accept-Contact header field containing the "sip.app-subtype" media feature tag defined in IETF RFC 5688 [5] with a value of "webrtc-datachannel" as specified in 3GPP TS 26.114 [4]; and

4) shall include an updated SDP offer that contains a data channel media description for the bootstrap data channel, as well as the requested application data channel and the associated DC application binding information, according to 3GPP TS 26.114 [4].

\* \* \* Next Change \* \* \* \*

##### 9.3.2.1.4 Closing IMS data channel in conjunction with MMTel session modification

If the UE wants to close an established application data channel during the session modification by sending re-INVITE request, it shall initiate the SDP re-negotiation to remove the "a=dcmap" attribute line associated with the closed application data channel from the data channel media description as defined in IETF RFC 8864 [14] subclause 6.6.1 or set the UDP port number of the data channel media description to zero if no other "a=dcmap" attribute line associated with an application data channel or bootstrap data channel existed in this data channel media description.

If the UE receives a re-INVITE message including an SDP offer in which the UDP port number of the data channel media description was set to zero or the "a=dcmap" line associated with an application data channel was removed from the data channel media description , and the UE accepts the application data channel termination, it shall return a 200 OK response to the re-INVITE with the generated SDP answer based on the IETF RFC 8864 [14].

The UE shall not close the bootstrap data channel during MMTel session modification procedure.

NOTE: The application data channel termination during the session modification does not impact the ongoing audio, video or other data channels within the IMS session.

\* \* \* Next Change \* \* \* \*

##### 9.3.3.1.4 Closing IMS data channel in conjunction with MMTel session modification

If the terminating UE receives a re-INVITE message including an SDP offer in which the UDP port number of the data channel media description was set to zero or the "a=dcmap" line associated with an application data channel was removed from the data channel media description, and the terminating UE accepts the application data channel termination, it shall return a 200 OK response to the re-INVITE with the generated SDP answer based on the IETF RFC 8864 [14].

If the terminating UE wants to close an established application data channel during the session modification by sending re-INVITE request, the procedure defined in clause 9.3.2.1.4 applies.

NOTE: The application data channel termination during the session modification does not impact the ongoing audio, video or other data channels within the IMS session.

\* \* \* End of Changes \* \* \* \*