**3GPP TSG-CT WG1 Meeting #146C1-240215**

**Online, 22– 26 January 2024**

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

**Title: BDC setup requested by the network**

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

**Agenda item: 18.3.8**

**Document for: Decision**

**1. Introduction**

This p-CR proposes to address the UE receiving BDC setup request from the network.

In addition, it is suggested to correct the UE action in 9.3.3.1.2 and 9.3.3.1.3.

**2. Reason for Change**

After MMTel session establishment, the originating UE could receive BDC setup request from local or remote network via SDP offer in re-INVITE message.

In addition, TS 23.228 specifies:

*The following principles apply when an IMS Data Channel is established: -*

*- UE can establish an IMS Data Channel simultaneously while establishing an IMS audio/video session or upgrade an ongoing IMS audio/video session through a re-INVITE to an IMS Data Channel session.*

*NOTE: An IMS Data Channel established simultaneously with an IMS audio/video session can have impact to the IMS session setup time.*

*- The UE may be configured by the HPLMN either via Device Management or in the UICC when to initiate a DC establishment request. If the UE is not configured, it is left for UE implementation when to initiate the DC establishment request. The UE shall not initiate a DC establishment request if the network has not indicated support for IMS DC service during IMS registration.*

The DC setup policy does not restrict the UE configured to establish an IMS Data Channel simultaneously while establishing an IMS audio/video session handles a DC establishment request through a re-INVITE.

**3. Proposal**

It is proposed to agree the following changes to 3GPP TS 24.186 v1.0.0.

\* \* \* First 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 reINVITE 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].

Upon receiving a re-INVITE request to establish a bootstrap data channel, if UE determines to establish a bootstrap data channel within the existing MMTel session, and the network supports the IMS data channel, the UE:

1) shall generate a 200 OK response in accordance with 3GPP TS 24.229 [9] and 3GPP TS 24.173 [10];

2) shall include an SDP answer 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 reINVITE 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 \* \* \* \*

##### 9.3.3.1.2 IMS data channel setup in conjunction with MMTel session setup

If the terminating UE determines that the UE and the network supports the IMS data channel, on the reception of SIP INVITE, the terminating UE shall include the media feature tags 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 SIP response to the SIP INVITE request.

If the terminating UE receives an SDP offer which includes the data channel media descriptions, i.e. the "m=application" section, and the terminating UE accepts the data channel, it shall return a 18x response with the generated the SDP answer based on the 3GPP TS 26.114 [4] and IETF RFC 8864 [14].

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

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

When the terminating UE determines that the UE and the network supports the IMS data channel, and the terminating UE receives an SDP offer in the re-INVITE message, which includes the data channel media descriptions, i.e. the "m=application" section, it shall return a 200 OK response to the reINVITE with the generated the SDP answer based on the 3GPP TS 26.114 [4] and IETF RFC 8864 [14].

If the UE determines that the UE and the network supports data channel and it is is configured to setup data channel as part of the initial session setup, the above paragraph also applies.

If the terminating UE wants to setup a data channel during the session modification by sending SIP re-INVITE request, the procedure defined in clause 9.3.2.1.3 applies.

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