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

**Online, 22– 26 January 2024 Revision of C1-240110**

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

**Title: Clarification on the UE handling of IMS data channel media description related to capability negotiation**

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

**Agenda item: 18.3.8**

**Document for: Decision**

**1. Introduction**

This p-CR proposes to correct the UE handling of IMS data channel media description in 9.2.

**2. Reason for Change**

TS 23.228 specifies:

*AC.8.1 IMS DC capability negotiation*

*If the IMS network supports IMS data channel, the S-CSCF includes a Feature-Caps header field indicating its data channel capability in the 200 OK response to the initial and any subsequent REGISTER request, which is used by the UE to discover the IMS data channel capability of its home IMS network.*

*...*

Considering that a UE only discovers its home network’s IMS data channel capability during the registration procedures, it is suggested to only restrict the IMS data channel negotiation related to home network.

In addition, the following issues are addressed:

1. TS 26.114 does not specify the UE discovers the IMS data channel capability of the network, which is specified in TS 23.228.
2. “IMS data channel” should be used to be distinguished from existing data channel supported by IMS.
3. The descriptions about SIP and SDP are improved.

**3. Proposal**

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

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

## 9.2 IMS data channel capability negotiation

### 9.2.1 IMS data channel capability negotiation during IMS initial registration

#### 9.2.1.1 Procedure at the UE

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]. When the UE is configured as specified in 3GPP TS 24.275 [11] with configuration for IMS data channel allowed then the UE determines support for IMS data channel according to the configuration.

If the UE is configured with IMS\_DC\_configuration node specified in 3GPP TS 24.275 [11] and the DC\_allowed leaf indicates that IMS data channel is allowed, then a UE supporting IMS data channel on sending an unprotected REGISTER request shall include the media feature tag defined in RFC 5688 [5] for supported streaming media type. For the IMS data channel capability indication, the UE shall use +sip.app-subtype="webrtc-datachannel" as specified in 3GPP TS 26.114 [4].

Editor's Note: The policy related to the IMS data channel allowed at the UE, can also be provided by the network to the UE using e.g., UICC configuration.

On receiving the 200 (OK) response to the REGISTER request, if the 200 (OK) response includes a Feature-Caps header field containing feature-capability indicator "g.3gpp.datachannel", the UE shall determine that the home network supports the IMS data channel capability as specified in 3GPP TS 23.228 [3].

If the UE determines its own home network does not support the IMS data channel capability, the UE shall not include IMS data channel capability indication in the SIP Contact and Accept-Contact header- fields, and IMS data channel media description in an SDP offer.

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

### 9.2.2 IMS data channel capability negotiation during IMS re-registration

#### 9.2.2.1 Procedure at the UE

If the UE is allowed to use IMS data channel, on reception of Re-REGISTER request, for user-initiated reregistration, the UE supporting IMS data channel shall include the media feature tag defined in IETF RFC 5688 [5] for supported streaming media type. For the IMS data channel capability indication, the UE shall use +sip.app-subtype="webrtc-datachannel" as specified in 3GPP TS 26.114 [4].

NOTE: The policy related to the IMS data channel allowed at the UE, 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.

On receiving the 200 (OK) response to the Re-REGISTER request, if the 200 (OK) response includes a Feature-Caps header field containing feature-capability indicator "g.3gpp.datachannel", the UE shall determine that the home network supports the IMS data channel capability as specified in 3GPP TS 23.228 [3].

The UE shall continue to indicate its IMS data channel capability as specified in the above procedure when the UE has successfully done the IMS data channel capability negotiation during IMS initial registration or re-registration.

On receiving the 200 (OK) response to the REGISTER request, if the 200 (OK) response does not include a Feature-Caps header field containing feature-capability indicator "g.3gpp.datachannel",

* the UE shall not include IMS data channel capability indication in the SIP Contact and Accept-Contact header fields, and IMS data channel media description in an SDP offer in further initial session setup request; and
* shall keep established data channel media of the UE's existing IMS session.

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

### 9.2.3 IMS data channel capability indication during IMS session establishment and modification

#### 9.2.3.1 Procedure at the UE

Upon generating an initial INVITE request or a re-INVITE request, the UE supporting IMS data channel and if the UE determined its home network supports the IMS data channel capability, the UE shall include the media feature tag defined in IETF RFC 5688 [5] for supported streaming media type in the Contact header field to the remote UE and use +sip.app-subtype="webrtc-datachannel" as specified in 3GPP TS 26.114 [4]. The UE 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 24.173 [10].

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