**3GPP SA3#95-LI *s3i240613***

**29 October – 01 November 2024, Las Vegas (US)**

**Title: Reply LS on UE-Satellite-UE Communication Architectures**

**Response to: LS (S2-2409442) on "Reply LS on KI#3 UE-Satellite-UE Communication Architectures"**

**Release: Release 19**

**Work Item: 5GSAT\_Ph3\_ARCH**

**Source:** **SA3-LI**

**To:** **SA2**

**Cc: SA3**

**Contact Person:**

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**Attachments:**

**1. Overall Description:**

SA3-LI thanks SA2 for their LS and the clarification in pursuing the UE-Satellite-UE communication architectures.

Point number 1

In reference to point number 1 (where the IMS-AGW would be on-board the satellite), SA3-LI would update LI specifications to accommodate the possibility of a change in the IMS-AGW during an active IMS Session.

SA3 LI believes that LI can be performed as long as P-CSCF is in control of the IMS-AGW change.

Point number 2

In reference to point number 2 (where an intermediate UPF (I-UPF) is inserted to the media path with no IMS-AGW for a UE-Satellite-UE communication) the LI specifications for IMS LI will have to be enhanced. SA3-LI believes to support such an architecture, P-CSCF needs sufficient information to isolate the media flow packets for all IMS sessions, at any time during the IMS session.

In SA3-LI understanding, the following are required for all UE-Satellite-UE IMS sessions, independent of LI:

* P-CSCF is able to identify the I-UPF. For this, I-UPF address/identity will be made available to the P-CSCF.
* P-CSCF is able to identify the tunnel used for the IMS media flow. For this, the tunnel ID used at the I-UPF will be made available to the P-CSCF. If a point-to-point tunnel is used (e.g. on N6), then the UDP port number along with the IP address of the I-UPF shall be made available to the P-CSCF.
* P-CSCF is able to identify the UDP port number (RTP) used for the media packets. Port numbers from the access side (N3) and the core-side (N6) will be available.
* P-CSCF is able to identify the QoS flow. For this, the QFI associated with QoS flow will be made available to the P-CSCF.

SA3 LI kindly asks SA2 to confirm the above understanding.

**2. Actions:**

**To SA2:**

**ACTION:** SA3 kindly asks SA2 to:

- In reference to point 1, to confirm SA3-LI that P-CSCF will be able to determine as and when the IMS-AGW is changed during a mid-session irrespective of LI.

- In reference to point 2, to inform SA3-LI whether the requirements listed in Point Number 2 are correct.

**3. Date of Next TSG-SA WG2 Meetings:**

3GPP SA3#96-LI 28 - 31 January 2025 Sophia Antipolis, FR