**3GPP TSG-WG SA2 Meeting #143E e-meeting *S2-210XXXX***

**Elbonia, February 24 – March 09, 2021 (revision of S2-210xxxx)**

Title: [DRAFT] LS on voice service impact due to S1 mode disable

Response to:

Release: Rel-17

Work Item: Rel-17

Source: SA2

To: CT1

Cc:

**Contact Person:**

Name: Heng Nie

Tel. Number:

E-mail Address: nieheng@chinatelecom.cn

**Send any reply LS to: 3GPP Liaisons Coordinator,** [**mailto:3GPPLiaison@etsi.org**](mailto:3GPPLiaison@etsi.org)

Attachments: S2-2101055

**1. Overall Description:**

SA2 has discussed relationship between IMS voice over PS session support indication and UE’s S1 mode capability for 3GPP access.

SA2 observes that, for a 5G network relying on only EPS fallback for voice service (i.e., not supporting of VoNR), once a voice centric UE disables its S1 mode (as specified in clause 4.5 of TS24.301), a voice centric UE ensures its voice service by selecting other domain as described in clauses 5.16.3.5 and 5.16.3.6 of TS 23.501. Consequently, the voice centric UE can’t either register in the 5GS or EPS until the S1 is enable again.

When the UE sends Attach or Tracking Area Update, the UE may fail due to temporally radio link failure(i.e., lower layer failure) or no NAS signalling response(i.e., T3430 timeout). The UE disables its S1 mode in these two cases, which results in selecting the unfavourable domain(e.g., not 5GS or EPS).

The corresponding CR(S2-2101055) is attached.

**2. Actions:**

**To CT1 group.**

**ACTION:** SA2 asks CT1 group to take the above observation into account and provide possible improvement, e.g, minimize the duration that the unfavorable domain is selected.

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

TSG-SA2 Meeting #144E April 5 – 16, 2021 Elbonia

TSG-SA2 Meeting #145E May 17 – 28, 2021 Elbonia