**3GPP TSG-CT WG1 Meeting #137-eC1-225160**

**E-Meeting, 18th – 26th August 2022**

Title: LS on UE selecting a non-allowed TAI in satellite access with multiple supported TAIs

Response to: N/A

Release: Rel-17

Work Item: 5GSAT\_ARCH-CT

Source: CT1

To: SA2

Cc: -

**Contact Person:**

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Attachments: None

**1. Overall Description:**

In their work on NR satellite access and the topic of multiple broadcast TAIs, CT1 has noted the stage 2 requirements for service area restrictions in 23.501, clause 5.4.11.8:

The AMF receives the broadcast TAI (if a single TAI is broadcast) or all broadcast TAIs (if multiple TAIs are broadcast) from the NG-RAN as described clause 5.4.11.7. The AMF provides the UE with Service Area Restrictions which consist of either Allowed Areas or Non-Allowed Areas, as described in clause 5.3.4.1.2. The UE and AMF consider the UE to be in a Non-Allowed Area if none of the broadcast TAIs is Allowed. The UE and AMF consider the UE to be in an Allowed Area if at least one broadcast TAI is allowed.

The stage 3 requirements to select a current TAI from multiple broadcast TAIs are captured in 24.501, clause 4.23.5, where the UE selects the TAI from the TACs supported by the selected PLMN.

In 23.122 requirements on PLMN selection for a case when a selected cell is a suitable cell for multiple PLMN identities (clause 4.4.3), the UE is mandated to select the registered PLMN if among these PLMN identities.

As a result, it is noted that there is a case when the UE selects a TAI not part of the allowed area:

* The UE is assigned a registration area that contains at least one equivalent PLMN to the registered PLMN;
* The UE is assigned an allowed area;
* The TACs of the registered PLMN part of the broadcast TAI list are not in the allowed area;
* At least one TAC of an equivalent PLMN part of the broadcast TAI list is included in the allowed area.

In the above case the UE selects a registered PLMN TAC which is not in the allowed area even if there is a TAI part of the allowed area in the broadcast TAI list.

CT1 has decided to not make any changes to specification under CT1 remit because of the above-described scenario but would like to inform SA2 of these observations.

**2. Actions:**

**To SA2 group.**

**ACTION:** CT1 requests SA2 take the information provided into account.

**3. Date of Next CT1 Meetings:**

CT1#138e 10th – 14th October 2022 e-meeting

CT1#139 14th – 18th October 2022 TBD