**3GPP TSG-SA3 Meeting #107e AdHoc *S3-221375-r3***

**e-meeting, 27 June - 1 July 2022**

**Source: Huawei, HiSilicon**

**Title: New KI-temporary slices authorization and slice service area authorization**

**Document for: Approval**

**Agenda Item: 5.12**

# 1 Decision/action requested

***Approve the new KI proposal to eNS3 TR33.886***

# 2 References

[1] 23.700-41 Study on enhancement of network slicing; Phase 3

# 3 Rationale

The contribution proposes a new key issue to study security aspects in support of temporary slices being studied in SA2 [1].

# 4 Detailed proposal

pCR

\*\*\* BEGINNING OF 1st CHANGES \*\*\*

## 5.X Key Issue #X: temporary slice authorization and slice service area authorization

### 5.X.1 Key issue details

Temporary slices are being studied in TR23.700-41 [x1]. The objective is to support gracefully terminate a network slice and avoid abrupt PDU Session release.

Temporary slices are expected to be made known to UE during configuration or other network slicing procedures impacting Configured NSSAI or Allowed NSSAI.

This Key Issue will study security aspects to support temporary slices.

Another sub-issue is slice service area authorization. The current granularity in terms service area authorization is Registration Area (RA), which covers multiple Tracking Areas (TA). The key issue needs also to investigate any impacts to security procedures enabling a different service area than per TA.

### 5.X.2 Security threats

A ~~UE may get access to the network resources even when a network slice is terminated or the~~ UE may not get access to the network slices if lifetime information is not conveyed to UE properly or not aligned amongst UE, PLMN and DN.

A UE will be denied for services for the whole RA if one of TAs in RA is not allowed.

### 5.X.3 Potential security requirements

The 5G system shall secure procedures with respect to temporary slices.

The 5G system should support finer level slice authorization to prevent denial of service if some slices are not allowed for the whole RA.

 \*\*\* END OF 1st CHANGES \*\*\*

\*\*\* BEGINNING OF 2nd CHANGES \*\*\*

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[x1] 3GPP 23.700-41: "Study on enhancement of network slicing; Phase 3".

[x2] 3GPP TS 33.501: "Security architecture and procedures for 5G system".

\*\*\* END OF 2nd CHANGES \*\*\*