**3GPP TSG-SA3 Meeting #107e AdHoc *S3-221374-r5***

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

**Source: Huawei, HiSilicon**

**Title: New KI-providing VPLMN slice information to roaming UE**

**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 on providing VPLMN slice information to a roaming UE. This is closely related to the corresponding key issue in SA2 [1]. It is expected the corresponding security procedure needs to be updated.

# 4 Detailed proposal

pCR

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

## 5.X Key Issue #X: providing VPLMN slice information to roaming UE

### 5.X.1 Key issue details

The following requirement for a 5G network is specified in TS 22.261[x1] in order to support a roaming UE activating network slice services

*For a roaming UE activating a service/application requiring a network slice not offered by the serving network but available in the area from other network(s), the HPLMN shall be able to provide the UE with prioritization information of the VPLMNs with which the UE may register for the network slice*

A related key issue is also being studied in TR 23.700-41 [x2] for possible procedure changes to automatic PLMN selection for a roaming UE requiring a network slice not offered by the serving network but available in the area from other network(s). It is expected that the corresponding security procedure will be affected (e.g. Steering of Roaming in TS33.501 [x3]) in order to support the HPLMN to provide a roaming UE the VPLMN slice information.

In this key issue, the following aspects will be studied:

- Would security procedures be impacted? If so which security procedures are impacted in support of HPLMN proving a roaming UE with information about slice availability per VPLMN and prioritization information of the VPLMNs with which the UE may register for the network slice?

- How to secure the procedures impacted.

### 5.X.2 Security threats

If network procedures to support of HPLMN proving a roaming UE with necessary information about slice availability and prioritization in other specifications are not secured properly, sensitive information may be tampered without authorization by malicious parties to profit illegitimately.

### 5.X.3 Potential security requirements

The 5G system shall secure procedures in support of HPLMN proving a roaming UE with information related to network selection ~~about prioritized VPLMN slice availability and prioritization~~ information.

\*\*\* 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 TS 22.261: "Service requirements for next generation new services and markets; Stage 1".

[x2] 3GPP TR 23.700-41 “Study on enhancement of network slicing; Phase 3”

[x3] 3GPP TS 33.501: "Security architecture and procedures for 5G system".

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