**3GPP TSG-SA3 Meeting #108e *draft\_S3-221865-r1***

**e-meeting, 22 - 26 August 2022**

**Source: Nokia, Nokia Shanghai Bell**

**Title: KI7 conclusion on authorization mechanism determination in inter-PLMN**

**Document for: Approval**

**Agenda Item: 5.24**

# 1 Decision/action requested

***In this box give a very clear / short /concise statement of what is wanted.***

# 2 References

[1] 4GPP TR 33.875

# 3 Rationale

# 4 Detailed proposal

\*\*\*\*\*\*\* START OF CHANGE

\*\*\* under 7. Conclusions

## 7.7 KI#7: Authorization mechanism determination

### 7.7.1 Analysis

The assumptions for this key issue are neglecting parts of the current standard. Nevertheless, the key issue has been introduced to reflect business needs by operators.

2 solution (#7 and #X) are presented.

For inter-PLMN communication (solution #7), the usage of static authorization by VPLMN seems to involve additional management effort on the HPLMN hNRF side for defining authorization policies per roaming partner. Also, if managed on PLMN level only, the granularity of policy could be not sufficient. It further involves the risk that a vNRF can dictate the hNRF its own conditions on which authorization method to use. This is however in contradiction with the hNRF being the one deciding on the authorization method for NF Service consumption as stated in solution #7.

Using existing stage 3 methods (solution #X) allows hNRF to configure per PLMN which authorization method is used. However, also for this approach some management effort is needed.

If there are intermediaries such as a roaming hub, further study is needed as well.

Currently, roaming contracts between operators do not cover the authorization method for NF service consumption. But the key issue seems to suggest that triggering such discussion at GSMA level could be helpful. An integration in a roaming contract could be helpful.

GSMA provides guidance by recommending that both VPMN and HPMN use either static authorization or authorization using OAuth2 access token since otherwise authorization is not possible, i.e., in case the HPMN only uses authorization using OAuth2 access token and the VPMN only uses static authorization.

If using authorization using OAuth2 access token, GSMA recommends that both VPMN and HPMN support oauth2Required IE as specified in 3GPP Release 16 TS 29.510 [V]. It is further clarified that if the HPMN wants to use authorization using Oauth2 only for some VPMNs, then HPMN has to support perPlmnOauth2ReqList IE as specified in 3GPP Release 17 TS 29.510 [V].

### 7.7.2 Conclusion

No normative work is required.

Any other solution than using existing stage 3 methods requires more work and possibly additional guidance from GSMA.

\*\*\*\*\*\*\*\*\*\*\* END OF CHANGE