**3GPP TSG-SA3 Meeting #105-e *draft-S3-213806-r3***

e-meeting, 8 - 19 November 2021

**Title: draft-Reply LS on 5GS roaming hubbing**

**Response to: LS S3-213806 on 5GS roaming hubbing**

**Source: NTT DOCOMO (to be SA3)**

**To: GSMA 5GJA, DESS**

**Cc: CT4**

**Contact person: Alf Zugenmaier / NTT DOCOMO**

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

# 1 Overall description

SA3 would like to thank 5GJA for their LS on 5GS roaming hubbing (S3-213806). SA3 understands that roaming hubs are an important part of the mobile ecosystem.

Regarding the LS, SA3 would like to make the following observations:

1. The deployment in Figure 1 of 5GJA's LS is not supported by 3GPP specifications, as there is no concept of SEPP chaining, i.e., 5GJA’s LS assumes having a RH SEPP on the path between pSEPP and cSEPP.
If there is a requirement to have the RH to control the setup of N32-c between the home and visited network SEPPs, the roaming hub may use a proxy allowing or disallowing the HTTP "connect" method, or use of a reverse proxy with SNI TLS-pass through. The roaming hub would take the role of "IPX" for N32-f, and, by using PRINS with appropriately chosen protection policies, can be in control of N32, being able to audit all requests and responses going across the connection marked as "B".
2. .
3. It is unclear why 5GJA assumes that a roaming hub would have full visibility of all agreements, as the routing of these N32 connections would be configured to go via the proxy in the roaming hub only for agreements involving the roaming hub. SA3 would like to request GSMA to clarify whether the commercial agreement between network operator and roaming hub covers the RH liability for the visibility of subscriber sensitive information, e.g., privacy and visibility to subscriber specific secret information.
4. 5GJA mentions that "regulation in some countries may require that the PLMN SEPP be deployed in the PLMN and located in the country where the PLMN operates". SA3 would like to ask 5GJA to clarify whether or not RH is considered to be a PLMN in its own right, with specific PLMN-IDs, and whether or not the same regulation is applicable to the RH.
5. In the case of operator group roaming hub, it is unclear why visibility of direct roaming relations would be undesirable if the purpose is for the group to centrally scrutinize the traffic.
3GPP doesn't require that only one SEPP is used inside a PLMN. During discovery, the NRF can steer a cNF towards the correct SEPP.

Furthermore, SA3 would like to point out that 3GPP defined the PRINS protocol to fulfil the requirements requested by GSMA during specification of 5G. SA3 would like to request GSMA to clarify whether or not the roaming hubbing use case requirements is different from the GSMAoriginal requirements.

SA3 would like to emphasise that the purpose of operator-to-operator security – established on N32 – is to allow two PLMNs, that are connected for inter-PLMN communication (including roaming), to verify that the communication partner is genuine and is the one it claims to be. This is only possible if N32 is not interrupted and if it terminates at the PLMNs. Chained SEPPs break this security control and are therefore not introduced in the 3GPP 5G standard

# 2 Actions

**To 5GJA**

**ACTION:** SA3 would like to ask 5GJA and DESS to take the above into consideration,provide requirements that come from the use case of roaming hubbing, and provide answers to the clarifications mentioned above

# 3 Dates of next TSG SA WG 3 meetings

SA3#106 7-11 February 2022 e-meeting

SA3#106-Bis 4 - 8 April 2022 TBD