**3GPP TSG-CT WG1 Meeting #134-eC1-221822**

**E-Meeting, 17th – 25th February 2022**

Title: LS on Mapped NSSAI

Release: Rel-17

Work Item: 5GProtoc17

Source: CT1

To: SA2

Cc: ---

**Contact Person:**

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Attachments: ---

**1. Overall Description:**

CT1 has discussed UE requirements regarding the NSSAI mapping during the transfer of a PDU session between HPLMN and VPLMN, or upon a change of the Allowed NSSAI in the Serving PLMN. Specifically, CT1 has been discussing the following scenario:

1. UE is registered in the HPLMN and receives Allowed NSSAI containing S-NSSAI\_1 only.
2. UE establishes PDU session in the HPLMN using S-NSSAI\_1
3. UE moves to a VPLMN, which provides Allowed S-NSSAI containing S-NSSAI\_2 only and no corresponding mapped S-NSSAI.

CT1 has been discussing the validity of the above scenario, in particular step 3, and the corresponding UE behaviour in relation to the PDU session.

In several places in TS 23.501, it is indicated that the mapping to HPLMN S-NSSAIs is optional. See, e.g., in clause 5.15.2.1:

The *optional* mapping of Serving PLMN S-NSSAIs to HPLMN S-NSSAIs contains Serving PLMN S-NSSAI values and corresponding mapped HPLMN S-NSSAI values.

CT1 understands that this optionality certainly applies to the non-roaming case; i.e., when the Serving PLMN is the HPLMN, then as a rule it will not provide a mapping. [RZ: This reasoning is not correct, because stage 2 has foreseen the possibility that also the HPLMN can provide a mapped S-NSSAI. One **could** say that the HPLMN will not provide a mapping, because as a rule the HPLMN will use the S-NSSAIs included in the Allowed NSSAI also network-internally to denote the slices, and therefore, not further mapping is required. But I don't think that we need to try and teach SA2 about network slicing.] [RZ: We disagree on this point, therefore it should be removed.]

To make sure that CT1 specs are fully in line with the stage 2 intention, CT1 would like to ask SA2 to clarify the following:

**Question 1:** Could SA2 confirm that it is indeed optional for the VPLMN to provide the mapped S-NSSAI for VPLMN S-NSSAI 2?

**Question 2:** If the answer to question 1 is yes, could SA2 further clarify the conditions under which it is optional to provide the mapped S-NSSAI. E.g., is it dependent on

- whether S-NSSAI 1 or S-NSSAI 2 or both are non-standard S-NSSAIs,

- whether in the above scenario S-NSSAI 1 and S-NSSAI-2 have the same or different values, or

- whether local break-out is supported for the S-NSSAI or whether exclusively local break-out is supported?

**Question 3:** If the answer to question 1 is yes, could SA2 further clarify if it is mandatory for the network to provide the mapped S-NSSAI to the UE if the mapped S-NSSAI is known to the network? ?

**Question 4:** If the answer to question 3 is no, could SA2 further clarify how the UE determines the mapped S-NSSAI in that case?

**2. Actions:**

**To SA2 group.**

**ACTION:** CT1 kindly asks SA2 to answer CT1's questions.

**3. Date of Next CT4 Meetings:**

CT1#135e 6th - 12th April 2022 electronic meeting

CT1#136e 12th - 20th May 2022 electronic meeting