**3GPP TSG-SA3 Meeting #107-e *draft\_S3-220952-r2***

e-meeting, 16 - 20 May 2022

**Title: [draft] LS on PLMN ID used in Roaming Scenarios**

**Release: Rel-17**

**Source: Ericsson, to be SA3**

**To: CT4, SA2**

**Cc:**

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**Attachments:** **S3-221213**

# 1 Overall description

Initiated by an LS from GSMA, [the](https://www.3gpp.org/ftp/tsg_sa/WG3_Security/TSGS3_106e/Docs/S3-220479.zip) approved draftCR S3-221213 attempts to enhance the security requirements in TS 33.501, clause 5.9.3.2 "Requirements for Security Edge Protection Proxy (SEPP)". The context is one operator, having support for multiple PLMN-IDs, in Roaming scenarios where one SEPP serves a given PLMN, and such PLMN has multiple PLMN-IDs and uses the same N32 connection for all PLMN-IDs. [S3-221213](https://www.3gpp.org/ftp/tsg_sa/WG3_Security/TSGS3_106e/Docs/S3-220479.zip) provides the following editor notes:

"Editor’s Note: It is FFS what should be the asserted PLMN-ID if the NF has not included the PLMN-ID header and the SEPP serves multiple PLMN-IDs."

"Editor's Note: It is FFS which PLMN ID an NF will include in case the NF serves multiple PLMN IDs."

**SA3 Observation 1**

The NFc certificate contains just one PLMN-ID in the Subject DN.

**SA3 Observation 2**

When performing an analysis of the NFc to SEPP communication we have concluded that the PLMN-ID Information Element not always is provided in the NFc message payload.

**SA3 Observation 3**

Even if default PLMN-ID information is available, it cannot always be trusted by the NFp. This has been a design assumption in SA3 in the past.

**SA3 Observation 4**

TS 33.501, clause 6.1.4.1 describes "Linking increased home control to subsequent procedures". The actions taken by the home network to link authentication confirmation (or the lack thereof) to subsequent procedures are subject to operator policy and are not standardized. Depending on operator policy, increased home control may lead to the UE registration request to be rejected by the home PLMN if the PLMN-ID header carries a different PLMN-ID than the earlier authentication request.

**SA3 Observation 5**

Indirect communication models may impact the identification of the PLMN-ID of the sending NF by the sending SEPP.

**SA3 Observation 6 (specifically to SA2)**

CT4 has already specified the 3gpp-Sbi-Asserted-Plmn-Id header in TS 29.500, clause 5.2.3.2.15.

# 2 Actions

**To CT4 and SA2ACTION:** SA3 asks CT4 and SA2 to kindly provide a technical solution to the two editor's notes, with the conditions described in "Overall description" above.

# 3 Dates of next TSG SA WG 3 meetings

SA3#107e-Bis 27 June - 1 July 2022 electronic meeting

SA3#108e 22 -26 August 2022 electronic meeting