**3GPP TSG-SA WG1 Meeting #89e S1-201050r6**

**Electronic Meeting, 10 - 14 February 2020** *(revision of S1-20xxxx)*

**Title: [DRAFT]** LS on Questions on onboarding requirements

**Response to:** LS S2-2001729 / S1-201015 on Questions on onboarding requirements from SA2

**Release:** Release 17

**Work Item:** FS\_eNPN

**Source:** SA1

**To:** SA2

**Cc:** SA, CT1, SA3, CT6

**Contact Person:**

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

**Attachments:** None

**1. Overall Description:**

SA1 thanks SA2 for their LS on onboarding requirements.

SA2 raised several questions concerning the following onboarding requirement:

*The 5G system shall support a secure mechanism for a network operator of an NPN to remotely provision the non-3GPP identities and credentials of a uniquely identifiable and verifiably secure IoT device.*

SA1 would like to provide the following answers:

Q1) SA2 would like to verify with SA1 whether the above-quoted requirement includes the provisioning of the following **for Stand-alone non-public networks (SNPNs)**:

1. IMSI accompanied by AKA credentials, both used for SNPN authentication
2. IMSI accompanied by AKA credentials, the IMSI being used to derive a Network Specific Identifier that will be used for SNPN authentication with the AKA credentials

A1) The quoted requirement applies to non-3GPP identities and credentials only, while SA2’s question refers to 3GPP identities and credentials. As such, the answer is no, the above-quoted requirement does not include provisioning of the mentioned identities and credentials to SNPNs. However, SA1 would like to point out that a requirement for remote provisioning has been included in TS 22.261, clause 6.14.2, since Release 15:

*The 5G system shall support a secure mechanism for a home operator to remotely provision the 3GPP credentials of a uniquely identifiable and verifiably secure IoT device.*

This requirement includes SNPNs and SA1 believes the technical functionality is covered by existing mechanisms for remote provisioning of 3GPP credentials in public networks.

Q2) SA2 would like to verify with SA1 whether the above-quoted requirement applies to PNI-NPN, which is the NPN *“hosted by a PLMN”* as described in TS 22.261 clause 6.25.1, or not, and what would be the corresponding use cases.

A2) Yes, the above-quoted requirement applies to PNI-NPN, in which case the provisioned identities and credentials are used for secondary authentication. In addition, remote provisioning of non-3GPP credentials for secondary authentication for accessing a NPN, is covered by an existing requirement in TS 22.101, as quoted below:

*The 3GPP system shall support user authentication with User Identifiers from devices that connect via the internet; the 3GPP system shall support secure provisioning of credentials to those devices to enable them to access the network and its services according to the 3GPP subscription that has been linked with the User Identity.*

Q3) If SA1 confirm the above-quoted requirement applies to PNI-NPN in Q2, SA2 have further Q3 as below.

For PNI-NPN, a UE may perform secondary PDU session authentication using 3rd party credentials, if the NPN is integrated in PLMN by means of dedicated DNNs, and/or a UE may perform Network specific slice authentication and authorisation (NSSAA) using 3rd party credentials if the NPN is integrated in PLMN by means of network slice. Given the authentication procedures already specified in TS 23.501, TS 24.501 and TS 33.501, SA2 would also like to ask whether provisioning for identities and credentials used for Network specific slice authentication and authorisation (NSSAA) and secondary PDU session authentication should be considered to be covered as part of NPN service requirement for onboarding and remote provisioning solution.

A3) SA1 could not understand this question and requests further clarification from SA2.

**2. Actions:**

**To SA2 group.**

**ACTION:** SA1 asks SA2 group to take the answers into account.

**3. Date of Next TSG SA WG1 Meetings:**

SA1#90 18-22 May 2020 TBD, North-America

SA1#91 24-28 August 2020 (TBC) Wroclaw, Poland