**3GPP TSG-SA WG2 Meeting #141e S2-2007738r08**

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**Source: Qualcomm Incorporated,** **Verizon UK Ltd., Vodafone, Charter Communications, Sennheiser, Tencent, Samsung, Nokia, Nokia Shanghai Bell, Cisco Systems, Futurewei, T-Mobile USA, Broadcom, Convida Wireless, Philips, MediaTek Inc.**

**Title: KI#1 conclusion for UEs with SNPN subscription**

**Document for: Approval**

**Agenda Item: 8.2**

**Work Item / Release: FS\_eNPN/ Rel-17**

*Abstract of the contribution: This paper proposes a conclusion for key issue 1.*

# Proposal

<<< Start of changes >>>

## 8.1 Key Issue #1: Enhancements to Support SNPN along with credentials owned by an entity separate from the SNPN

### 8.1.1 Conclusions for UEs with an SNPN subscription

The following enhancements will be progressed in the normative phase:

- Architecture

- The scenario where the entity owning the credentials has only a AAA Server is supported.

Editor’s note: The architecture to support AAA interfaces to Home SP will be revised based on SA3's feedback.

Editor’s note: The Registration procedure supporting AAA interfaces towards Home SP will be revised based on input from SA3 including the aspect which subscription data the V-SNPN should use in this scenario.

- SIB

- Indication that "access using credentials from a separate entity is supported"

- Optionally, an indication whether the SNPN allows registration attempts from UEs that are not explicitly configured to select the SNPN

NOTE 1: This refers to UEs that do not have an entry in the user-controlled or the separate entity-controlled lists of preferred SNPNs matching the SNPN's network identity and that do not have an entry in the separate entity-controlled prioritized list of Group IDs matching any of the Group IDs supported by the SNPN.

- UE configuration

- User-controlled prioritized list of preferred SNPNs

NOTE 3: If the UE has multiple subscriptions owned by different entities separate from the SNPN it is assumed that the subscription to use is selected by implementation specific means (e.g. based on user input) prior to network selection.

- For a UE configured to use SNPNs, automatic SNPN selection is performed in the following order:

- UE selects and attempts to register with the available SNPN identified by a PLMN ID and NID for which the UE has SUPI and credentials (i.e. as in Rel-16).

- UE selects an available and allowable SNPN, which broadcasts "access using credentials from a separate entity is supported" indication and an SNPN ID contained in the user-controlled list (if available)

- If the UE has not found an available and allowable SNPN based on the above, the UE selects an available and allowable SNPN which broadcasts an indication that the SNPN allows registration attempts from UEs that are not explicitly configured to select the SNPN:

- If the UE detects a plurality of such SNPNs, the order in which the UE selects and attempts a registration with an SNPN is implementation specific

- If the UE is unable to find a suitable cell of any available and allowable SNPN based on the above, the UE attempts to camp on an acceptable cell of any available SNPN supporting emergency calls (irrespective of SNPN ID) [**or of any available PLMN (irrespective of PLMN ID)]**, in limited service state

The UE continues automatic SNPN selection based on the above until a suitable cell is found or until the user stops the automatic selection procedure (in which case the user may proceed with manual network selection).

NOTE 5: The details of how to prevent a UE from automatically repeatedly selecting an SNPN that rejects the UE’s registration (i.e. handling of permanently and temporarily forbidden SNPNs) can be defined by CT1.

- For manual SNPN selection the UE presents all available SNPNs, which broadcast the "access using credentials from a separate entity is supported" indication.

NOTE 6: The order in which available SNPNs are presented can be defined by CT1.

Editor's note: This clause will capture conclusions for Key Issue #1.

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