**3GPP TSG-SA3 Meeting #110Ad-Hoc-e *draft\_S3-231778-r7***

**Electronic meeting, Online, 17 - 21 April 2023**

**Title: [**Draft] **LS on ProSe Secondary Authentication**

**Response to:**

**Release: Rel-18**

**Work Item: PROSESA**

**Source: Interdigital to be SA3**

**To: SA2**

**Cc: CT1**

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**Attachments:** draftCR (not agreed)

# 1 Overall description

SA3 is discussing the support of ProSe Secondary Authentication.

SA3 has progressed the work for the support of ProSe Secondary Authentication as per the attached Draft CR.

Per **[S3-222462](https://www.3gpp.org/ftp/TSG_SA/WG3_Security/TSGS3_108e-AdHoc/Docs/S3-222462.zip)/****[S2-2207838](https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_152E_Electronic_2022-08/Docs/S2-2207838.zip" \t "_blank)**, SA3 understands that the support of ProSe Secondary Authentication has implication to the 5GS architecture and procedures and collaboration with SA2 is required, and therefore SA3 would like to get feedback on the following questions related to the attached draft CR (not agreed yet) and any other architectural or procedural aspects that SA2 would like to comment.

Q1. The draft CR assumes that a DNN subject to ProSe Secondary Authentication and dedicated for UE-to-Network Relay service (i.e., associated with a RSC) shall be configured in the subscription data of a 5G ProSe capable UE when acting as a Remote UE. And a DNN that is not subject to ProSe Secondary Authentication may or may not need to be configured in the subscription data of a 5G ProSe capable UE when acting as a Remote UE. What are the architectural or procedural aspects from SA2 point of view regarding this assumption?

Q2a. With assumption in Q1, can such DNN be used by the UE for both direct network connectivity when acting as a regular UE and L3 UE-to-network relay connectivity when acting as a Remote UE?

Q2b. With assumption in Q1, what is the architecture assumption on the DN and DN-AAA deployment (e.g. DN-AAA address can be configured in the subscription data or locally configured in SMF of relay UE or derived from EAP-ID provided by the Remote UE) for the relay traffic in case the Remote UE and the Relay UE are from different PLMNs? For DN-AAA address determination by SMF, the draft CR presently assumes the reuse of existing mechanisms (e.g., DN-specific identity in EAP Response/Identity message from Remote UE).

Q3, The draft CR assumes that the Relay UE is able to determine that a Prose secondary authentication is required by the DN for a Remote UE based on some configuration(e.g., based on prior PDU Session secondary authentication run). And after a successful PC5 security establishment the Relay UE sends a Direct Communication Accept message to the remote UE with an indication that the Remote UE shall not send any traffic over L3 UE-to-network relay connectivity until further notification from the relay UE. What are architectural or procedural aspects which SA2 sees in using this approach? Is SA2 fine with such approach, or kindly inform of SA2 preferred approach?

Q4a, The draft CR assumes the Remote UE report procedure is used by the relay UE to trigger SMF to initiate a secondary authentication of the Remote UE. What are the architectural or procedural aspects which SA2 sees in using this mechanism? Is SA2 fine with such approach, or kindly inform of SA2 preferred approach?

Q4b, The existing Remote UE report procedure allows a relay UE to include several Remote User IDs in the Remote UE report message. Is it possible for the Relay UE to trigger SMF to initiate a secondary authentication for one specific UE if multiple Remote User IDs are included in the same Remote UE report message? If not, based on assumption in Q3, is it possible to use a separate Remote UE report to trigger SMF to initiate a secondary authentication for a Remote UE if subject to secondary authentication?

Q5a, When SMF needs to perform ProSe Secondary Authentication for a Remote UE, can the SMF use the same session established with DN-AAA for the secondary authentication of the Relay UE, or whether the SMF should establish a new session with DN-AAA for each Remote UE that is subject to DN level authorization?

Q5b, If the SMF should establish a new session for each Remote UE that is subject to DN level authorization with DN-AAA, how would the interactions between SMF and DN-AAA be like for each remote UE, e.g. regarding UE IP address/MAC notifications, DN authorization information from DN-AAA, knowing that the GPSI of Remote UE is available to the SMF?

# 2 Actions

**To SA2:**

**ACTION:** SA3 kindly asks SA2 to provide answer to the questions above above, and any feedback on the draft CR.

# 3 Dates of next TSG SA WG 3 meetings

SA3#111 22 - 26 May 2023 Berlin, DE

SA3#112 14 - 18 August 2023 Göteborg, SE