**3GPP TSG-SA3 Meeting #104-e *draft\_S3-212854-r1***

**e-meeting, 16 - 27 August 2021** Revision of S3-21xxxx

**Source: Qualcomm Incorporated**

**Title: Evaluation of Solution #34**

**Document for: Approval**

**Agenda Item: 5.9**

# 1 Decision/action requested

***This contribution proposes an evaluation text for Solution #34.***

# 2 References

[1] TR 33.847 v0.6.0

# 3 Rationale

This contribution proposes an evaluation text for Solution #34.

# 4 Detailed proposal

It is proposed that SA3 approve the below pCR for inclusion in the TR [1].

**\*\*\*\*\* START OF CHANGES \*\*\*\*\***

## 6.34 Solution #34: Authorization of the remote UE in L3 U2N relay

### 6.34.1 Introduction

This solution addresses KI #4. This solution provides a mechanism to authorize a remote UE’s access to (1) a specific network slice(s) that requires slice-specific authentication and (2) a DN that requires a secondary authentication.

### 6.34.2 Solution details

This solution reuses the existing slice-specific authentication and secondary authentication procedures specified in TS 33.501 [14].

To access a DN that requires a secondary authentication, the remote UE establishes an IPsec connection with the N3IWF of its HPLMN via a L3 U2N relay if it has not been established yet, and then requests a PDU session to the AMF of its HPLMN via the N3IWF. The secondary authentication procedure is performed as specified in TS 33.501 [14].

To access a network slice that requires a slice-specific authentication, the remote UE establishes an IPsec connection with the N3IWF of its HPLMN via a L3 U2N relay if it has not been established yet, and then sends a Registration Request or a Service Request to access the slice to the AMF of its HPLMN via the N3IWF. The slice-specific authentication procedure is performed as specified in TS 33.501 [14].

The Relay Service Code (RSC) used for discovery and PC5 link setup is associated with the PDU session for the Remote UE to access the N3IWF of its HPLMN. The Remote UE determines the N3IWF address and accesses the N3IWF over the PDU session established by the U2N relay UE based on the procedure in TS 23.304 [16].

Editor’s Note: Whether and how PDU Session provided to the Remote UE is limited to N3IWF connection (e.g., and not used of other type of traffic) is FFS.

### 6.34.3 Evaluation

This solution fulfils the second security requirement of KI#4 for the remote UE that accesses (1) a specific network slice(s) that requires slice-specific authentication or (2) a DN that requires a secondary authentication:

“The 5GS shall support the authorisation of the UE as a Remote UE in the UE-to-Network relay scenario.”

Editor’s Note: Further evaluation is FFS.

**\*\*\*\*\* END OF CHANGES \*\*\*\*\***