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| **Title:** | **Further Liaison on Termination of EAP authentication over Bluetooth for 3GPP UE function split** |
| **Work Item:** | **3GPP-WLAN Inter-working** |
| **Source:** | **3GPP SA3** |
| **To:** | **Bluetooth Security Expert Group, Bluetooth Architecture Review Board (BARB), and Bluetooth CAR group** |
| **Cc:** | **EP-SCP** |

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**Attachments:** -

# 1. Overview

In their previous Liaison sent in SA3#31 (S3-030780), SA3 has identified 3 alternatives to proceed their work on 3GPP UE function split for a 3GPP WLAN user equipment:

- Alternative 1: all functions of the EAP peer are executed on the TE, with the exception of the GSM/UMTS cryptographic algorithms on the SIM/USIM. The GSM/UMTS UE acts as a Bluetooth SIM Access Profile server, and the TE acts as a Bluetooth SIM Access Profile client. The GSM/UMTS UE does not perform any functions of an EAP peer.

- Alternative 2: all functions of the EAP peer are executed on the GSM/UMTS UE, with the GSM/UMTS cryptographic algorithms on the SIM/USIM. The TE does not perform any functions of an EAP peer.

- Alternative 3: the functional split is as follows: the SIM/USIM performs the GSM/UMTS cryptographic algorithms, the GSM/UMTS UE derives the EAP-SIM or EAP-AKA master key MK from the GSM or UMTS session keys obtained from the SIM or USIM. All the other functions of an EAP peer are performed on the TE.

Based on the discussion in SA3#32, the alternative 2 is seen the preferred way to proceed, and thus agreed as current working assumption. It is also agreed that alternative 1 is unacceptable and thus it is dropped. Alternative 3 could be the second choice.

# 2. Action

SA3 kindly ask from Bluetooth community:
1. Whether Bluetooth community foresees any potential problems regarding the decision made by SA3
2. If there exist any other mechanisms that Bluetooth community could propose for SA3's use case.
3. Whether a Bluetooth profile could be found or created such that it would support the alternative 2 .

SA3 is looking forward to receive comments on these issues from Bluetooth community.

# 3. Further meetings of 3GPP SA3 working group

| S3#33 | 11-14 May 2004 | Beijing, China | Samsung |
|-------|----------------|----------------|---------|
| S3#34 | 06-09 July 2004 (TBC) | TBC | "NA Friends of 3GPP" |
| S3#35 | 5-8 October 2004 | TBC (Sophia?) | TBC (ETSI/EF3?) |
| S3#36 | 23-26 November 2004 | Shenzhen, China | HuaWei Technologies |
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