**3GPP SA3LI#90 *s3i230421***

**26-30 June 2023, Prague (CZ) revision of *s3i230387***

Title: LS on LI for AKMA in roaming

Response to: -

Release: Rel-18

Work Item: LI18

Source: SA3-LI

To: SA3

Cc: -

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Attachments: -

**1. Overall Description:**

SA3-LI has noted that the AKMA phase 2 study TR 33.737, addressing use of AKMA in roaming, is nearing completion. The TR arrives at no conclusion on whether LI requires normative work in SA3 for the case of an encryption termination point (AF) residing outside the VPLMN (KI#1, cases 1 and 3).

The technical problems associated with performing LI in the VPLMN in the above cases are well documented in SA3-LI (a thorough analysis was done in e.g. S3i-210262 and some AKMA-specific technical problems are discussed in S3-231761). Issues such as transfer of encryption key(s) and parameters lie within the responsibility of SA3 due to requirements of non-disclosure of LI-activation etc. Leaving LI as a proprietary solution threatens business cases for AKMA usage and leads to an unmanageable situation for CSPs due to their legal obligations. Even worse, it departs from the principle of having the LI solution open and transparent, removing doubts about presence of different kinds of back-doors.

Therefore, as it presently stands, the end-result will most likely be the same as that for S8HR/N9HR, where GSMA had to solve the problem with fulfilling legal requirements in roaming cases. For S8HR/N9HR encryption cannot be enabled in roaming case 1, as per GSMA IR.65. (For S8HR/N9HR, no equivalent of case 3 exists.) In the current situation, it also appears that the AKMA Ua\* profiles (cipher suites) defined in TS 33.210, if compliant with underlying IETF specifications, cannot support independent enabling of encryption and/or integrity protection, and thus AKMA may not be possible to use at all in roaming.

SA3-LI would therefore like to remind SA3 of the previous request for normative AKMA work that was sent in the LS S3i-200477. The response from SA3 in S3-202950 was that roaming was not supported which, as a result of AKMA Ph 2, is no longer valid.

**2. Actions:**

**To SA3 group**

**ACTION:** SA3-LI kindly asks SA3 to work on normative solutions in support of LI for AKMA in roaming when the AF resides outside VPLMN, or, to provide a response LS, where the SA3 standpoint on handling of LI in the aforementioned case is more clearly elaborated.

**3. Date of Next SA WG3-LI Meetings:**

SA WG3-LI Meeting #91 24th – 27th Oct. 2023 Sydney, Australia

SA WG3-LI Meeting #91-LI-e-b 27th – 28th Nov. 2023 e-meeting