**3GPP TSG-SA3 Meeting #124 S3-253527**

Wuhan, China, 13 – 17 October 2025

**Title: Response LS on issues related to support of IMS voice over NB-IoT NTN connected to EPC**

**Response to: S2-2507636**

**Release: Release 20**

**Work Item: FS\_5GSAT\_Ph4\_ARC**

**Source: Qualcomm Incorporated (to be SA3)**

**To: SA2**

**Cc: RAN2, SA4, SA1, RAN1**

**Contact person: Adrian Escott**

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**Send any reply LS to: 3GPP Liaisons Coordinator,** [**mailto:3GPPLiaison@etsi.org**](mailto:3GPPLiaison@etsi.org)

**Attachments:** None

# 1 Overall description

SA3 thanks SA2 for their LS (S2-2507636) on issues related to support of IMS voice over NB-IoT NTN connected to EPC.

In that LS, SA2 ask SA3 the following question:

**Question 7** (**To SA3**): Considering that in the context of alternative solutions documented in TR 23.700-19 for the support of IMS voice over NB-IoT NTN connected to EPC, a specific SRB (i.e. via a dedicated EPS bearer for Data over NAS) will be used for transfer of voice media packets only, is there a concern to eliminate the 5 bytes of NAS layer security overhead?

SA3 provides the following response:

Securing that transfer of voice media packets will require 1 byte of the NAS COUNT to ensure no keystream repeat for encryption or replay of a packet in the case that integrity protection is used. When and only when integrity is used, 4 bytes to carry the MAC are also required.

Although it is not mandatory to integrity protect voice packets over the user plane, the majority of companies in SA3 were not in favour of allowing non-integrity protected voice packets to be sent over NAS to the MME. Hence there was no consensus in SA3 to reduce the security overhead from 5 bytes.

# 2 Actions

**To SA2**

**ACTION: SA3 asks SA2 to take the above response into account in their further work on the subject.**

# 3 Dates of next TSG SA WG 3 meetings

SA3#125 17 – 21 November 2025 Dallas, US

SA3#126 9 – 13 February 2026 India (TBD)