**3GPP TSG-SA3 Meeting #121 S3-25crypt1**

**Goteborg, Sweden, 7 - 11 April 2025**

**Source: Nokia, Nokia Shanghai Bell**

**Title: Pseudo-CR on Technical Details on the ECIES**

**Document for: Approval**

**Agenda item: 5.20**

**Spec: 3GPP TR 33.938**

**Version: 0.1.0**

**Work Item: 3GPP Cryptographic Inventory**

**Comments**

For the cryptographic inventory the ECIES should be described in more detail in the detailed protocol list. This pCR is providing the proposed changes.

\* \* \* First Change \* \* \* \*

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 33.210: "3G security; Network Domain Security (NDS); IP network layer security".

[3] 3GPP TS 33.310: "Network Domain Security (NDS); Authentication Framework (AF)".

[4] 3GPP TS 33.501: “Security architecture and procedures for 5G system”.

\* \* \* Next Change \* \* \* \*

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [1].

ICB Initial Counter Block

SECG Standards for Efficient Cryptography

SUPI Subscription Permanent Identifier

\* \* \* Next Change \* \* \* \*

## 4.4 Detailed Protocol List

Editor’s Note: This detailed protocol list is expected to finalize first.

### 4.4.x ECIES

ECIES is used in 5G system in standalone mode for the following:

Concealment of the SUPI (see Annex C.3 of TS 33.501 [4])

The ECIES profiles follow the terminology and processing specified in SECG version 2. The security profiles for the ECIES implementation and usage in 3GPP is given in clause C.3.4 of TS 33.501 [4].

ECIES employs symmetric cryptography for the confidentiality protection of the SUPI, while the ECIES profiles make use of elliptic curve profiles which refers to asymmetric cryptography.

\* \* \* End of Changes \* \* \* \*