**3GPP TSG-SA3 Meeting #115adhoc-e *S3-241398r1***

**Emeeting, 1519 April 2024**

**Source: Apple**

**Title: New solution on Securely notification to UE when the 2G/3G networks are decommissioned**

**Document for: Approval**

**Agenda Item: 5.6**

# 1 Decision/action requested

***Approve the pCR to TR 33.701***

# 2 References

[1] S3-234624-New Study Proposal on Mitigations on Bidding Down Attack

[2] TR 33.809Study on 5G Security Enhancement against False Base Stations

# 3 Rationale

This contribution proposes a new solution for TR 33.701.

# 4 Detailed proposal

\*\*\* Start of 1st 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".

[X] 3GPP TR 24.501: "Non-Access-Stratum (NAS) protocol for 5G System (5GS); Stage 3"

\*\*\* Start of 2nd Change \*\*\*

## 5.y Solution #y: Securely notification to UE when the GERAN/UTRAN networks are decommissioned

### 5.y.1 Introduction

This solution addresses the security requirement in key issue#1 on securely notification to UE when the GERAN or UTRAN networks are decommissioned.

### 5.y.2 Details

The UE performs the registration procedure when it is connecting to the LTE or 5G network. During this procedure, the network indicates to the UE about the information on whether GERAN or UTRAN is decommissioned in a secure message, i.e., Registration Accept.

The current Registration Accept message content is referring to Clasue 8.2.7 in TS 24.501[X]. With the new indication, the new Registration Accept message is as below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | Extended protocol discriminator | Extended protocol discriminator9.2 | M | V | 1 |
|  | Security header type | Security header type9.3 | M | V | 1/2 |
|  | Spare half octet | Spare half octet9.5 | M | V | 1/2 |
|  | Registration accept message identity | Message type9.7 | M | V | 1 |
|  | 5GS registration result | 5GS registration result9.11.3.6 | M | LV | 2 |
| 77 | 5G-GUTI | 5GS mobile identity9.11.3.4 | O | TLV-E | 14 |
| …… |
| 13 | List of PLMNs to be used in disaster condition | List of PLMNs to be used in disaster condition9.11.3.83 | O | TLV | 2-n |
| TBD | List of decommissioned RAT | List of decommisioned RAT | O | TLV | 2-n |

This service is supposed to be provided for all the UEs when operators enable it. ~~When UE is in roaming scenario, the information can be provided by PCF or UDM to AMF through one of the PCF services and UDM services.~~

### 5.y.3 Evaluation

This solution addresses the security requirement in key issue#1 with the impact only on UE and AMF.

This solution is not applied to legacy UEs. ~~in non-roaming cases, potentially extra impact on PCF or UDM to notify AMF when in roaming scenario.~~

\*\*\* End of 2nd Change \*\*\*