**3GPP TSG-SA3 Meeting #115 e-adhoc *S3-241473***

Online, 15th April – 19th April 2024

**Source: Xiaomi, Nokia**

**Title: New KI on UPF topology hiding**

**Document for: Approval**

**Agenda Item: 5.15**

# 1 Decision/action requested

***It is proposed to approve the pCR to TR 33.754 V0.0.0.***

# 2 References

[1] 3GPP TR 33.754 Study on security aspects for Multi-Access (DualSteer + ATSSS Ph-4)

# 3 Rationale

This contribution proposes a new key issue for TR 33.754 [1].

# 4 Detailed proposal

\*\*\* Start of the 1st Change \*\*\*

5.X Key Issue #X: Exposure of a new IP communication endpoint in the UPF

5.X.1 Key issue details

Solutions #2.2, #2.6, #2.7, and #2.8 in TR 23.700-54 [X] are developed to address the key issue about simplified ATSSS architecture over non-3GPP access.

For non-3GPP access, all these solutions require the UE and the UPF to build a direct connection between the UE and the UPF. And the UPF needs to expose the public address of its IP communication endpoint that can be reached directly by the UE.

Any UE may reach the UPF via the public internet and brings potential service abuse threats. Malicious UEs/non-3GPP devices may send messages to a specific UPF and lead to a DDoS attack on a particular UPF.

5.X.2 Security threats

Malicious UEs/non-3GPP devices may discover the new IP communication endpoint in the UPF, and send it messages intended to compromise it, eventually leading to a DDoS attack on that particular UPF.

5.X.3 Potential security requirements

5GS should ensure that the exposure of a new IP communication endpoint in the UPF is protected and not subject to be abused by a malicious agent.

\*\*\* Start of the 2nd 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 23.700-54:" Study on Multi-Access (DualSteer and ATSSS\_Ph4)"

\*\*\* End of the Change\*\*\*