**3GPP TSG-SA3 Meeting #101e S3-202970**

**e-meeting, 9 – 20 November 2020 Revision of S3-20xxxx**

**Source: Huawei, HiSilicon**

**Title: New Key issue on supporting security flexibility**

**Document for: Approval**

**Agenda Item: 5.9**

# 1 Decision/action requested

***Approve this contribution to add a new Key issue in TR33.847***

# 2 References

[1]

# 3 Rationale

The contribution proposes a new Key issue on supporting security flexibility in 5G Prose system.

# 4 Detailed proposal

\*\*\* BEGINNING OF CHANGES \*\*\*

## 5.X Key Issue #X: Supporting security flexibility in 5G Prose

### 5.X.1 Key issue details

Flexibility is a new 5G feature and first introduced in UP security feature in R-15. In R-16, the flexibility is extended to 5G V2X in one-to-one communication.

For direct communication, in LTE Prose, in restricted discovery, the idea of flexibility has been introduced, i.e. in Code-Send-SecParams and Code-Rcv-SecParams. In clause 6.1.3.4.3.2 of TS 33.303[XX], the Code-Sending Security Parameters is generated by ProSe Function and it is used to indicate how to protect the message. Thus, in restricted scenario, the flexibility has been introduced since LTE. In open discovery, there was no flexibility in 4G, because the intention for open discovery is used between two persons. But in 5G Prose can be used for commercial, and there is no conclusion on whether open discovery can be used for commercial or not. Therefore, the open discovery can be extended to support security flexibility to support commercial use.

For in-direct discovery(a remote UE discovery another UE or gNB/N3IWF via a UE-to-UE relay or iva UE-to-Network Relay), there is no flexibility in LTE Prose, but the flexibility is introduced in 5G V2X which will be a basis for 5G Prose.

This key issue is to study how to support flexibility in direct discovery and in-direct discovery scenarios.

### 5.X.2 Security threats

### Using too much security when it is not warranted may tie HW and OS resources and create a DOS situation. Using too little security may not provide an adequate level of security. 5.X.3 Potential security requirements

5G Prose system shall support to achieve security on demandon the integrity protection and confidentiality protection in both direct discovery and in-direct discovery.

\*\*\* END OF CHANGES \*\*\*