**3GPP TSG-SA5 Meeting #134e *S5-206128rev1***

**e-meeting 16th - 25th November 2020**

**Source: CATT**

**Title: pCR Add general description and assumptions**

**Document for: Approval**

**Agenda Item: 7.5.3**

# 1 Decision/action requested

***The group is asked to discuss and agree on the proposal.***

# 2 References

[1] 3GPP TR 32.846: “Study on charging aspects of Proximity-based Services in 5GS”.

# 3 Rationale

This pCR adds general description and assumptions to draft TR 32.846.

# 4 Detailed proposal

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| **1st Modified Section** |

# 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 23.287: "Architecture enhancements for 5G System (5GS) to support Vehicle-to-Everything (V2X) services".

[3] 3GPP TR 23.752: “Study on system enhancement for Proximity based Services (ProSe) in the 5G System (5GS)”.

[4] 3GPP TS 32.277: "Proximity-based Services (ProSe) charging".

[x] 3GPP TS 23.303: "Proximity-based services (ProSe); Stage 2".

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| **Next Modified Section** |

# 6 Charging scenarios and key issues

## 6.1 5GS charging for ProSe

### 6.1.1 General description and assumptions

As indicated in TS 32.277 [4], the offline and online charging description for the Proximity-based Services was specified based on EPS system, including the support of charging support of ProSe Direct Discovery, one-to-many Direct Communication, and one-to-one Direct Communication including UE-to-Network Relay (for public safety use), and EPC based discovery.

When mapped to 5GS, the study will focus on how to accommodate charging ProSe Direct Discovery and Direct Communication over NR based PC5 for commercial services and public safety based on the 5G service-based architecture.

#### 6.1.1.1 ProSe Direct Discovery scenarios

5G ProSe Direct Discovery is defined as a procedure employed by a ProSe-enabled UE to discover other ProSe-enabled UEs in its vicinity by using only the capabilities of the two UEs with NR technology.

There are two types of 5G ProSe Direct Discovery: open and restricted. Open is the case where there is no explicit permission that is needed from the UE being discovered, whereas restricted discovery only takes place with explicit permission from the UE that is being discovered.

There are two models for 5G ProSe Direct Discovery: Model A and Model B. For discovery procedure over NR based PC5 for commercial services and public safety in 5GS, the definition for Model A and Model B is re-used as defined in clause 5.3.1.2 of TS 23.303 [x].

Editor’s Note: It is FFS for supporting of Direct Discovery between UE-to-Network Relay and UE-to-UE Relay.

#### 6.1.1.2 ProSe Direct Communication scenarios

5G ProSe Direct Communication is defined as a communication between two or more UEs in proximity that are ProSe-enabled, by means of user plane transmission using NR technology via a path not traversing any network node.

5G ProSe Direct Communication over NR based PC5 reference point supports broadcast mode, groupcast mode, and unicast mode. Each communication mode is supported when the UE is served by NR and when the UE is outside of NR coverage.

5G ProSe Direct Communication supports both the case of public safety and commercial service.

5G ProSe Direct Communication supports both event based and session based charging;

Editor’s Note: It is FFS for supporting of Direct Communication between UE-to-Network Relay and UE-to-UE Relay.

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| **End of Modified Sections** |