3GPP TSG SA WG5 Meeting #157 S5-245906

Hyderabad, India, 14 - 18 October 2024

**Source: Huawei**

**Title: New charging solution for non-roaming A2X Communication**

**Document for: Approval**

**Agenda Item: 7.5.4**

# 1 Discussion

***This is a pCR to provide the Aircraft-to-Everything for UAS charging in TR 28.853.***

# 2 References

[1] 3GPP TR 28.853: "Study on charging aspects of uncrewed aerial systems".

# 3 Rationale

This pCR proposes to introduce the non-roaming solution for Aircraft-to-Everything service for UAS Charging.

# 4 Detailed proposal

Propose to incorporate the following change into the TR 28.853 [1].

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| **First change** |

#### 5.4.4.2 Solution #4.2: Non-roaming A2X Communication over Uu reference point

##### 5.4.4.2.1 General description

This solution#4.2 which relying on CHF/5G Converged Charging System for Non-roaming A2X Communication Charging, addresses the Key Issue#4.1.

A2X communication over PC5 reference point or over Uu reference point are supported, and this solution only considers the A2X communication over Uu reference point.

- the mechanisms defined in TS 23.501 [4] and TS 23.502 [5] can be used to establish the suitable PDU Sessions, and V2X messages are routed towards V2X Application Server or towards UEs with existing unicast routing, as specified in the clause 5.2.2.1 TS 23.287[8];

- The mechanisms defined in TS 23.247 [9] can be used to establish the suitable MBS sessions, and V2X messages are routed from the V2X Application Server towards UEs via broadcast MBS sessions or multicast MBS sessions, as specified in the clause 5.2.2.2 TS 23.287[8].

##### 5.4.4.2.2 Architecture description

The 5G System high level charging architecture for SMF/MB-SMF Charging to support the A2X communication.

##### 5.4.4.2.3 Procedures description

The high-level charging procedure for A2X communication over Uu reference point is referred the PDU session charging as specified in the TS 32.255[10] and MBS session charging as specified in the TS 32.255[10] and TS 32.279[11].

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| **End of change** |