**3GPP TSG SA WG5 Meeting #156 S5-244191**

**Maastricht, The Netherlands, 19 - 23 August 2024**

**Source: CATT**

**Title: Add charging scenarios and charging requirements for store and forward satellite operation**

**Document for: Approval**

**Agenda Item: 7.5.1**

# 1 Decision

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

# 2 References

[1] 3GPP TR 28.846: " Study on charging aspects of satellite access Phase 3 ".

# 3 Rationale

This pCR proposes to add the charging scenarios and charging requirements for store and forward satellite operation.

# 4 Detailed proposal

The following changes are proposed to be incorporated into the new TR.

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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".

[x] 3GPP TS 23.401: "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access".

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| **2nd Modified Section** |

## 6.x Charging scenarios for store and forward satellite operation

### 6.x.1 Use cases

#### 6.X.1.1 Use Case #x.1: MNO charges subscriber

This use case focuses on UE and MNO business scenario.

The UE has a subscription agreement with the MNO which may rent the satellite from the SSP.

For this case, the charging party and charged party can be:

- Charged party: UE accesses MNO which is using satellite to provide the S&F operation service.

- Charging party: MNO who provides the S&F operation service to the UE.

The MNO charges subscribers based on the usage of satellites to provide the S&F operation service.

The potential charging requirements for this Use Case is: REQ-CH\_ SAT\_PH3-01.

#### 6.X.1.2 Use Case #x.2: MNO charged by SSP

This use case focuses on MNO and SSP business scenario.

The MNO has an agreement to use the satellite from satellite provider, the charging party and charged party can be:

- Charged party: MNO who rents the satellite from the Satellite Service Provider to deploy the eNB and NFs.

- Charging party: Satellite Service Provider who provides the satellite to MNO

The SSP charges MNO based on the usage of satellites to deploy the eNB and NFs.

The potential charging requirements for this Use Case is: REQ-CH\_ SAT\_PH3-01.

### 6.x.2 Potential charging requirements

The following are potential high-level charging requirements for satellite in 5GS, derived from the requirements in TS 23.401 [x].

**REQ-** **CH\_ SAT\_PH3-01**: The 5GS should support collecting charging information for S&F operation services.

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| **End of Modified Sections** |