**3GPP TSG-SA5 Meeting #148-e *S5-233401***

**e-meeting, 17 April - 25 April 2023**

**Source: China Unicom**

**Title: pCR 28.841 add use case for monitoring of satellite components**

**Document for: Approval**

**Agenda Item: 6.8.7.1**

# 1 Decision/action requested

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

# 2 References

[1] 3GPP draft TR 28.841: " Study on Management Aspects of IoT NTN Enhancements v0.4.0".

# 3 Rationale

This pCR is to add use cases for TR 28.841[1].

# 4 Detailed proposal

It proposes to make the following changes to the draft TR 28.841[1].

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| **1st Change** |

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#### 5.1.2.2 Use case for monitoring the coverage holes or discontinuous satellite coverage

##### 5.1.2.2.1 Goal

The goal is to allow the monitoring of the coverage holes or discontinuous satellite coverage for idle mode mobility enhancements

##### 5.1.2.2.2 Pre-conditions

A NOP operates a non-terrestrial networks for BL UEs, UEs in enhanced coverage and NB-IoT UEs.

The network as operated by the NOP satellite RAN supporting NB-IoT/eMTC.

##### 5.1.2.2.3 Description

As a satellite moves on a specified orbit, for example in case of a NGSO satellite, the satellite beam(s) coverage area may move and cover different portions of a geographical area due to the orbital movement of the satellite. As a consequence, a UE located in the concerned geographical area may experience a situation of discontinuous coverage, due to e.g., a sparse satellite constellation deployment.

The management system of the NB-IoT/eMTC Non-Terrestrial Network is designed to provide a measured of the coverage holes or discontinuous satellite coverage

##### 5.1.2.2.4 Post-description

The management system monitors the coverage holes or discontinuous satellite coverage.

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| **End of change** |