**3GPP TSG-SA5 Meeting #143-e *S5-223235rev4***

**e-meeting, 9 - 17 May** **2022**

**Source: Huawei**

**Title: Potential solution for Key Issue #1**

**Document for: Approval**

**Agenda Item: 6.5.17.3**

# 1 Decision/action requested

***Discuss and approve on the proposal.***

# 2 References

[1] TR 28.907 Study on enhancement of management of non-public networks v0.1.0

# 3 Rationale

It is proposed to add a potential solution for key issue #1 in draft TR 28.907 [1].

# 4 Detailed proposal

This document proposes the following changes in TR 28.907 [1].

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| **1st Change** |

# 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 28.557: "Management and orchestration; Management of Non-Public Networks (NPN); Stage 1 and stage 2".

[3] 3GPP TS 22.261: "Service requirements for the 5G system".

[4] 3GPP TS 22.867 "Study on 5G Smart Energy and Infrastructure".

[5] 5G-ACIA: Exposure of 5G Capabilities for Connected Industries and Automation Applications, <https://5g-acia.org/whitepapers/exposure-of-5g-capabilities-for-connected-industries-and-automation-applications-2/>

[y] 3GPP TS 28.532: "Management and orchestration; Generic management services".

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| **2nd Change** |

### 5.1.x Potential solutions

#### 5.1.x.1 Introduction

This clause provides a potential solution for fault management capabilities scoping NPN and 5G industry terminals.

#### 5.1.x.2 Description

In order to provide fault management capabilities scoping NPN and UEs representing 5G industry terminals, an NPN management system should monitor the fault of NPN and large quantity of 5G industry terminals which may be deployed in an enterprise.

* For the fault management of NPN, the network alarm can be discovered by analyzing performance data or network alarm event reporting. In this case, the generic fault supervision management service and performance assurance management service in section 11 of [y] can be re-used to collect the network performance data and alarm data.
* For the fault management of 5G industry terminals deployed in an enterprise, the NPN management system should support to performance monitoring and fault diagnosis for 5G industry terminals. NPN management system can collect the performance data and then execute data analysis for alarm detection, localization and/or resolution. The performance data collected from industry terminal may include DL/UL throughput, end to end latency, packet loss, etc.

Editor's note 1: The details for performance data collection procedure from 5G industry terminals are FFS.

Editor's note 2: Whether the data analysis is based on 3GPP management capabilities, and which these capabilities are, is FFS.

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| **End of change** |