**3GPP TSG-SA5 Meeting #143-e *S5-223418***

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

**Source: CMCC, Huawei**

**Title: pCR TR 28.830 Add solution of key issue 5GC service failure prediction**

**Document for: Approval**

**Agenda Item: 6.5.7.2**

# 1 Decision/action requested

***The group is asked to discuss and approve the proposal.***

# 2 References

[1]  [SP-220153](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3693): "New SID on Fault Supervision Evolution"

[2] S5-222733: "draft TR 28.830 Fault supervision evolution"; v0.1.0

# 3 Rationale

This document describes how to use anomaly event management to automatically process and correlate multi-dimensional data to quickly identify and generate 5GC data service failure prediction anomaly event and eliminate manual information check.

It is proposed to add solution of key issue 5GC service failure prediction in draft TR 28.830.

# 4 Detailed proposal

This document proposes the following changes in TR 28.830.

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| **1st Change** |

# 5 Key Issues and potential solutions

## 5.X Key Issue #3: 5GC service failure prediction

### 5.X.1 Description

Editor’s note: This clause provides a description of the key issue.

### 5.X.2 Potential solutions

#### 5.X.2.a Potential solution #<1>: <5GC service failure prediction>

##### 5.X.2.a.1 Introduction

Editor's Note: This clause describes briefly the potential solution at a high-level.

This section describes how to identify and resolve 5GC data service failure prediction anomaly event.

##### 5.X.2.a.2 Description

Editor's Note: This clause further details the potential solution and any assumptions made.

Methods and Processes of 5GC data service failure prediction anomaly event:

 (1) Awareness: collects network KPIs (for example, the average number of AMF registered users, 5G SA session setup success rate, and NF registration success rate) and alarms to predict 5GC service failure.

(2) Analytics: correlates and analyzes the alarm, performance, and configuration data of 5GC NFs to demarcate the NFs where the failures may occur and locate the root causes of the risks.

(3) Decision: provides 5GC service failure evaluation, and resolution decision.

(4) Execution: executes the risk elimination solution based on the demarcation and locating information to resolve the 5GC data service failure prediction anomaly event. After verifying that KPIs are normal, clear the 5GC data service failure prediction anomaly event.

### 5.X.3 Conclusion - Impact on normative work

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| **End of change** |