**3GPP TSG-SA5 Meeting #142-e *S5-222326rev1***

**e-meeting, 4 - 12 April 2022**

**Source: Huawei**

**Title: Update the phase of 3GPP NF monitoring**

**Document for: Approval**

**Agenda Item: 6.5.14**

# 1 Decision/action requested

This document is to request approval of the proposed text.

# 2 Rational

This document is to propose some description to update the phase of 3GPP network funcation health analysis in clause 6.10.

# 3 Proposed changes

The start of the change

## 6.10      Network function health analysis

### 6.10.1    Description

During normal operation, analysis of performance monitoring and alarms may indicate implementation problems in regarding network or particular network functions. 3GPP management system can monitor health status in normal operational stage typically right after validate and deploy the new software version of network functions.

The performance measurement and alarm notifications can be used to analysis the problems during the operation phase and report the possible problems of the newly updated 3GPP network functions. The monitoring of network function health status can show a problem with a new software version of NF, the network operator can provide the recommendation(s) regarding the reported problems. This same type of analysis may be used during operational testing of a new or updated NF.

### 6.10.2    Potential Requirements

**REQ-CICD\_NFH-FUN-1**: The 3GPP Management system should have the ability to analyse management data to detect implementation problems related to network functions.

**REQ-CICD\_NFH-FUN-2**: The 3GPP Management system should have the ability to start the performance monitoring of the newly updated 3GPP network functions due to NF software update or upgrade.

**REQ-CICD\_NFH-FUN-3**: The 3GPP Management system should have the ability to report the result and the problem(s) of performance monitoring to the new software version of 3GPP network functions.

### 6.10.3 Possible Solutions

#### 6.10.3.1 Alternate 1

The monitoring of managed network can be performed in normal operation phase after deploy the new release of 3GPP network function. It is proposed to define a new MDAS capability to perform analysis on the health monitoring of the managed network. The new MDAS capability would analyse performance data and alarms and report on possible problems.

There are many possible causes of network problems, and these include implementation problems related to individual network functions. Other types of problems are outside the scope of this study. Possible NF-related problems may for example typically be found with a performance indicator of the NF that is significantly different to NFs in a similar setting. The problems that may be reported include:

* Unexpected UE behaviour
* Unexpected traffic loss or unexpected traffic rejection
* Unexpected NF load
* Inefficient use of infrastructure resources
* Unnecessary use of resources (resource leaks)
* Slow response to scaling requests or rejected scaling requests
* Any unexpected or exceptional performance indicator

End of change