**3GPP TSG-SA5 Meeting #156 *S5-243555***

Maastricht, The Netherlands, 19 - 23 August 2024

**Source: Ericsson**

**Title: pCR TR 28.871 Alarm definition**

**Document for: Approval**

**Agenda Item: 6.19.8**

# 1 Decision/action requested

***Approve the proposal.***

# 2 References

[1] 3GPP TR 28.871 Study on Service Based Management Architecture enhancement phase 3 (Release 19) v0.2.0

[2] S5-238120 Discussion paper on Alarm definition

# 3 Rationale

The Study on Service Based Management Architecture enhancement phase 3 [1] includes the work task:

WT-3.1 Study whether a new 3GPP alarm type in Alarm definition is needed.

This document specifies the use-cases and potential requirements and solution for this topic. The main goals include:

* Making it possible to list alarming conditions supported by the producer
* Allowing alarm filtering based on the 3 parameters defining the alarming-condition

# 4 Detailed proposal

**First change**

## 5.X Use case #<X>: List and handle Alarming-Conditions

### 5.X.1 Description

**Observation 1:** Alarm capability

Currently, there is no standardized mechanism defined that can be used to retrieve the set of all alarming-conditions that a MnS producer could notify about.

**Observation 2: Alarm related notification filtering is difficult**

The most basic requirement on alarm related notification filtering is to filter based on the alarming-condition (defined by the alarmType, probableCause, specificProblem). As some of these parameters are not carried in some alarm related notifications this filtering task is not possible e.g. for notifyCorrelatedNotificationChanged.

### 5.X.2 Potential requirements

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| --- | --- | --- |
| **Requirement label** | **Description** | **Related use case(s)/Motivation** |
| REQ-MS-FMAL-1 | A producer should be able to provide a list of all the alarming-conditions it might raise an alarm for. |  |
| REQ-MS- FMAL-2 | Every alarming-condition should have a set of associated data that describes the alarming-condition. The information set shall at least include: alarmType, probableCause, specificProblem | The information helps the user correctly handle an alarm. Additional information may be included for each alarming-condition |
| REQ-MS- FMAL-3 | It should be possible to filter alarm related notifications based on the alarming-condition: all alarm related notifications shall carry the parameters alarmType, probableCause, specificProblem | Motivation: Management systems may not want to handle all alarming-conditions.  |

### 5.X.3 Potential solutions

#### 5.X.3.1 Potential solution #part1: List of alarming-conditions

The method of providing this information and the format of the list shall be defined.

#### 5.X.3.2 Alarm notifications shall use all "alarm identifying attributes"

To allow filtering on alarming conditions all alarm related notifications shall carry the parameters alarmType, probableCause and specificProblem.

SpecificProblem shall be added to the input parameters of notifyClearedAlarm, notifyChangedAlarm, notifyAckStateChanged, notifyComments.

All 3 parameters shall be added to notifyCorrelatedNotificationChanged.

### 5.X.4 Evaluation of potential solutions

The proposed solutions satisfiy the requirements.

**End of change**