**3GPP TSG-SA5 Meeting #158*****S5-247142***

Orlando, USA, 18-22 November 2024 revision of S5-246392

**Source: Ericsson Hungary Ltd.**

**Title: Rel-19 pCR TR 28.871 Conclusions for Alarm handling**

**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

[2] 3GPP TS 32.158 Design rules for REpresentational State Transfer (REST) Solution Sets (SS)

# 3 Rationale

# Conclusions are added for the topics of “Reliable notification transfer” and “List and handle Alarming-Conditions”.

## 3.1 Implement a dedicated notification for situations where Notification could not be sent/prepared

It is recommended to implement clause “*5.13.3.3.2 Part#3a* *notifyNotificationNotSent*” beside “*5.13.3.3.3 Part#3b state variables on the NtfSubsciptionControl*” for the reasons below:

**State monitoring is more complicated than a dedicatied notification**

Subscriptions could be monitored by defining state attributes. Monitoring individual state attributes (as proposed in part #3b) can be done by subscribing to the notifyMOIChanges notification, however this necessitates specifying detailed scoping for the notification, that is not trivial.

Similar situations could have been handled by notifyMOIChanges in other cases, but it was decided to provide dedicated notifications to make management easier. We are proposing a similar dedicated notification for this scenario. Examples of usage of dedicated notifications include:

- Dedicated alarm related notifications could be replaced by notifyMOIChanges on the AlarmList IOC.

- NotifyFileReady could be replaced by notifyMOIChanges on the Files and File IOCs.

**Sometimes it is not a state, but a single event that needs to be notified.**

In some cases it is not a prolonged state of the subscription that needs to be reported, but a single event.

E.g. in some implementation data change notifications like notifyMOIChanges have a size limit. If the change is greater than that, the producer needs to indicate that at this single moment some notifyMOIChanges will not be prepared, sent. The next millisecond notification sending is resumed as normal. Indicating such single events by toggling a state variable is awkward and results in 2 CM notifications instead of one. Single events like this that don’t have a duration should be signalled by a notification not a state variable.

# 4 Detailed proposal

**First change**

### 5.7.4 Evaluation of potential solutions

The proposed solution satisfies the need for common definition. It is proposed for the normative work.

**Next change**

### 5.13.4 Evaluation of potential solutions

Solution part #1, #2 and #3 fulfil the proposed requirements.

Solutions #1, #2, #3a and #3b are recommended for normative work.

Solution #3c is not recommended for normative work.

**Next change**

## 6.a Listing and handling of Alarming-Conditions

The requirements for listing and handling alarming-conditions are listed in clause 5.10.2.

**REQ-MS- FMAL-3** based on the potential solution described in clause 5.10.3.2 is recommended for normative work.

No consensus was reached on **REQ-MS-FMAL-1** and **REQ-MS- FMAL-2** thus they are not recommended for normative work at this point of time.

## 6.b Reliable notification transfer

The requirements for Reliable notification transfer are listed in clause 5.13.2.

All four requirements are recommended for normative work based on the potential solutions described in clauses 5.13.3.1, 5.13.3.2, 5.13.3.3.2 and 5.13.3.3.3.

## 6.c Common Notification Header

The common notification header should be specified as described in clause 5.7.3. It is proposed for normtive work.

**End of changes**