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| Input Contribution |
| Meeting ID\* | SDS 41 |
| Title:\* | TR0053-Subscription & Notification  |
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| Date:\* | 2019-07-11 |
| Input related to\* | WI-0076 - Lightweight oneM2M Services |
| Intended purpose ofdocument:\* | [x]  Decision[x]  Discussion[ ]  Information[ ]  Other <specify> |
| Impacted other TS/TR(s) |  |
| Decision requested or recommendation:\* | <A concise statement of the decision required or the recommended action to be taken> |
| Template Version: November 2018 (do not modify) |

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# Introduction

SDS-2019-0378R02 (TR0053-Subscription\_&\_Notification) propose the following potential requirements:

1. The oneM2M system shall support deferred notification for some or all of the notification receivers.
2. The oneM2M system shall support sending deferred notifications with a subsequent check that the event notification criteria are still met after the deferral period is complete.(e.g. is met after the specified time frame).

This contribution propose a potential solution by adding a new attribute *deferredNotification* under the subscription resource, This attribute has a value of the deferral period and a list of deferred notification receiver. The hosting CSE shall sending deferred notification with a subsequent check that the event notification criteria are still met after the deferral period to the deferred notification receiver.

### -----------------------Start of change 1-------------------------------------------

6.x.4 Potential Solution

### 6.x.4.x Solution x: Deferred Notification

### 6.x.4.x.1 Definition of a new attribute for *subscription* Resource

Table 6.x.4: A new Attributes of *<subscription>* resource

| Attributes of *<subscription>* | Multiplicity | RW/RO/WO | Description |
| --- | --- | --- | --- |
| *deferredNotification* | 0..1 | RW | This attribute, if set, indicates that notifications shall be deferred for a period of time before being sent to the receivers. This attribute contains a list of tuples. Each tuple in the list contains a value of the deferred period and a deferred notification receiver (notificationURI). The hosting CSE shall defer the notification only for the listed receiver for the deferred period, and check whether the event notification criteria are still met after the deferred period. If yes, the hosting CSE shall send the deferred notification to the receiver. Otherwise, the deffered notification will not be sent. |

### 6.x.4.x.2 Example Procedure for Deferred Notification

 

Figure 6.x.4.x.2 Example procedure of the Deferred Notification

step1: The subscriber sends the create <subscription> request with *notificationURI=* *Notification Recevier #1 and Notification Recevier #2*, the *deferredNotification* including *deferred period* and *deferred notificationURI*, e.g., *deferred Period=10s, deferred notificationURI=#2*;

step2: The hosting CSE creates the <subscription> resource with *deferred Period=10s, deferred notificationURI=#2*;

step3: The hosting CSE sends the create <subscription> response;

step4: When the notificationCriteria is met, the hosting CSE sends the notify request to the Notification Recevier #1

step5: After the *deferral period,* the hosting CSE checks if the *notificationCriteria* are still met

step6: If the *notificationCriteria* are still met, the hosting CSE sends the notification to the Notification Receiver#2

### -----------------------End of change 1---------------------------------------------