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| CHANGE REQUEST | |
| Meeting ID:\* | SDS 40 |
| Source:\* | Bob Flynn, Convida Wireless , Bob.Flynn@convidawireless.com |
| Date:\* | 2019-05-20 |
| Reason for Change/s:\* | Consider timeout during blocking subscription (UPDATE) |
| CR against: Release\* | Rel-3 |
| CR against: WI\* | Active <Work Item number>  MNT maintenance / < Work Item number(optional)>  Is this a mirror CR? Yes  No  mirror CR number: (Note to Rapporteur - use latest agreed revision)  STE Small Technical Enhancements / < Work Item number (optional)>  Only ONE of the above shall be ticked |
| CR against: TS/TR\* | TS-0004V3.11.2 |
| Clauses \* | 7.5.1.2.19 |
| Type of change: \* | Editorial change  Bug Fix or Correction  Change to existing feature or functionality  New feature or functionality  Only ONE of the above shall be ticked |
| Other TS/TR(s) impacted | None |
| Post Freeze checking:\* | This CR contains only essential changes and corrections? YES  NO  This CR may break backwards compatibility with the last approved version of the TS? YES  NO |
| Template Version: January 2019 (do not modify) | |

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GUIDELINES for Change Requests:

Provide an informative introduction containing the problem(s) being solved, and a summary list of proposals.

Each CR should contain changes related to only one particular issue/problem.

If this is a correction, and the change applies to previous releases, a separate “mirror CR” should be posted at the same time as this CR

Mirror CR: applies only when the text, including clause numbering are exactly the same.

Companion CR: applies when the change means the same but the baselines differ in some way (e.g. clause number).

Follow the principle of completeness, where all changes related to the issue or problem within a deliverable are simultaneously proposed to be made e.g. a change impacting 5 tables should not only include a proposal to change only 3 tables. Include any changes to references, definitions, and abbreviations in the same deliverable.

Follow the drafting rules.

All pictures must be editable.

Check spelling and grammar.

Use change bars for modifications.

The change should include the current and surrounding clauses to clearly show where a change is located and to provide technical context of the proposed change. Additions of complete clauses need not show surrounding clauses as long as the proposed clause number clearly shows where the proposed new clause is located.

Multiple changes in a single CR shall be clearly separated by horizontal lines with embedded text such as, start of change 1, end of change 1, start of new clause, end of new clause.

When subsequent changes are made to the content of a CR, then the accepted version should not show changes over changes. The accepted version of the CR should only show changes relative to the baseline approved text.

## Introduction

### Per PRO-2018-0269R01, Bob to follow-up and consider the time out scenario in TS-0004 clause 7.5.1.2.19

Change 1 shows the content agree at SDS 39.

A timeout scenario is possible because a primitive is blocked from execution until a “notificationURI” responds to a NOTIFY request. I will consider a response that never arrives or a response that arrives after the “timeout” event.

PRO-2018-0247-Redirection\_Error\_Response\_R3 definess error codes and procedures for this very case. This was noted at TP 38 when it should have been left “draft”.

It is resubmitteded in this contribution below.

This contribution defines the response status code for redirection response class as mentioned in oneM2M-TS-0004-V3.7.0 Table 6.6.3.4‑1.

When a primitive received by a transit CSE or a host CSE that has a blocking action, such as the “blocking Update” subscription *notificationEventType* used for IPEs, an error that results from the endpoint not responding properly should be differentiated from an error in the transit/host CSE.

For example, if an IPE represents a NoDN, when accessing the NoDN a primitive is sent to the CSE -> IPE -> NoDN. If the CSE cannot send a message to the IPE, TARGET\_NOT\_REACHABLE, is appropriate and indicates that the first hop from the receiver CSE was not reachable. However, if the IPE responds with an error that indicates that the NoDN was not reachable, then a different RSC is justified. This allows us to better identify the source of the error.

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

### 6.6.2 RSC framework overview

The RSCs are categorized as one of 6 classes:

Table 6.6.2‑1: Definition of Response Status Code class

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| --- | --- | --- |
| **Status Class** | **Code Class** | **Interpretation** |
| Informational | 1xxx | The request is successfully received, but the request is still in progress. |
| Success | 2xxx | The request is successfully received, understood, and accepted. |
| Redirection | 3xxx | Redirected request scenarios such as blocking subscription. |
| Originator Error | 4xxx | The request was malformed by the Originator and, is rejected. |
| Receiver Error | 5xxx | The requested operation cannot be performed due to an error condition at the Receiver CSE. |
| Network Service Error | 6xxx | The requested operation cannot be performed due to an error condition at the Network Service Entity. |

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

### -----------------------Start of change 2-------------------------------------------

* + - 1. Redirection response class

Table 6.6.3.4‑1 specifies the RSCs for redirected requests.

**Table 6.6.3.4‑1: RSCs for redirection response class**

|  |  |
| --- | --- |
| **Numeric Code** | **Description** |
| 3000 | INTERNAL\_SERVER\_ERROR |
| 3008 | REQUEST\_TIMEOUT |
| 3103 | TARGET\_NOT\_REACHABLE |

### -----------------------End of change 2---------------------------------------------

### -----------------------Start of change 3-------------------------------------------

* + - 1. Redirected Request Failure Handling

Whenever oneM2M AE triggers the update operation on resources which have blocking subscription, the Receiver CSE redirects the request to the “***notificationURI****”.*

If the response is received from the “***notificationURI****”*, but the notification receiver could not connect to the Non-oneM2M Device Nodes (NoDNs), the Receiver CSE returns an error response with ***Response status code*** indicating redirection error “TARGET\_NOT\_REACHABLE ” to the originator as defined in Table 6.6.3.4-1

If the response is received from the “***notificationURI****”*, but update operation failed at Non-oneM2M Device Nodes (NoDNs), the Receiver CSE returns an error response with ***Response status code*** indicating redirection error “INTERNAL\_SERVER\_ERROR” to the originator as defined in Table 6.6.3.4-1

If the response is not received, the Receiver CSE returns an error response with ***Response status code*** indicating redirection error “REQUEST\_TIMEOUT” to the originator as defined in Table 6.6.3.4-1

### -----------------------End of change 3---------------------------------------------

CHECK LIST

* Does this Change Request include an informative introduction containing the problem(s) being solved, and a summary list of proposals.?
* Does this CR contain changes related to only one particular issue/problem?
* Have any mirror CRs been posted?
* Does this Change Request make **all** the changes necessary to address the issue or problem? E.g. A change impacting 5 tables should not include a proposal to change only 3 tables?Does this Change Request follow the drafting rules?
* Are all pictures editable?
* Have you checked the spelling and grammar?
* Have you used change bars for all modifications?
* Does the change include the current and surrounding clauses to clearly show where a change is located and to provide technical context of the proposed change? (Additions of complete clauses need not show surrounding clauses as long as the proposed clause number clearly shows where the new clause is proposed to be located.)
* Are multiple changes in this CR clearly separated by horizontal lines with embedded text such as, start of change 1, end of change 1, start of new clause, end of new clause.?