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| CHANGE REQUEST |
| Meeting ID:\* |  SDS #56 |
|   | Andreas Kraft, DT, A.Kraft@telekom.de Andreas Neubacher, DT, Andreas.Neubacher@magenta.at Miguel Angel Reina Ortega, ETSI, MiguelAngel.ReinaOrtega@etsi.org |
| Date:\* | 2022-07-20 |
| Reason for Change/s:\* | TS-0001 Clarification of Notification Recording Procedure |
| CR against: Release\* | Release 5 |
| CR against: WI\* | [ ]  Active WI-xxxx[x]  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-0001, V4.16.0 |
| Clauses \* | 10.2.10.27 |
| Type of change: \* | [ ]  Editorial change[x]  Bug Fix or Correction[ ]  Change to existing feature or functionality[ ]  New feature or functionalityOnly ONE of the above shall be ticked |
| Impacted other TS/TR(s) |  |
| Post Freeze checking:\* | This CR contains only essential changes and corrections? YES [x]  NO [ ] This CR may break backwards compatibility with the last approved version of the TS? YES [ ]  NO [x]  |
| Template Version: January 2017 (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.

In case of a correction, and the change apply to previous releases, a separate “mirror CR” should be posted at the same time of 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. Includes any changes to references, definitions, and acronyms in the same deliverable.

Follow the drafting rules.

All pictures must be editable.

Check spelling and grammar to the extent practicable.

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 new clause is proposed to be 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 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

This CR proposes a clarification and change for TS-0001, clause 10.2.10.27 “Notification Recording Procedure”.

Clause 10.2.10.27 specifies the procedures for a CSE how to record notification statistics for <subscription> and <crossResourceSubscription> resources. The second bullet point in particular specifies the steps how to count the notification requests.

However, the procedure doesn’t specify which type of notifications shall be recorded. The recording of these statistics is useful for an application or a management system for notifications that are sent because of the events that happen to the monitored resources, not to the <subscription> or the <crossResourceSubscription> resources themselves. The resource lifecycle-related notifications for verification notification requests (which are optional for a CSE anyway) and the deletion notification request (which, if counted, cannot be retrieved anymore because the hosting resource was deleted) shall not be counted.

Also, in TS-0004 7.4.8.2.1 (<subscription> CREATE procedure), Recv-6.5, 4) says:

1. If the *notificationStatsEnable* attribute is set to true, the Hosting CSE shall start recording notification statistics in the *notificationStatsInfo* attribute once the <subscription> resource is created.

This implies that the verification notification request(s) were already processed.

Following up from this, it is also not clear what the actual recorded entity is. From the description in this and other procedures one can interpret to record the procedural events (e.g. “update of parent” or “creation of child resource”), or as the sending and receiving of a single notification request. As soon as there is more than one notification target configured as a receiver this difference becomes noticeable, because for a single procedural event several notification requests are created and sent. The problem now becomes that a statistics consumer needs to keep of track of changes in the number of notification targets over time because without that knowledge it is impossible to calculate the real number of procedural events.

This CR therefore proposes the clarifications and changes in Change 1, clause 10.2.10.27, second bullet point.

### \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Start of Change 1 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 10.2.10.27 Notification Recording Procedure

For each <*subscription*> and *<crossResourceSubsription>* resource, the Hosting CSE shall use the following procedure to record notification statistics.

* If the *notificationStatsEnable* attribute of a <*subscription*> or *<crossResourceSubsription>* resource is set to TRUE, either upon the successful creation or update of the <*subscription*> or *<crossResourceSubsription>* resource, the Hosting CSE shall clear any statistics that were stored previously in the *notificationStatsInfo* attribute and begin collecting notification statistics for each NOTIFY request the Hosting CSE generates and sends to each notification target defined by the *notificationURI* attribute.
* While the *notificationStatsEnable* attribute is set to TRUE, the Hosting CSE shall collect and store the following types of statistics within the *notificationStatsInfo* attribute for each notification target defined by the *notificationURI* attribute. Verification notifications and deletion notifications shall not be counted in the following elements:
	+ Total number of NOTIFY requests sent to a notification target
	+ Total number of NOTIFY responses received from a notification target
	+ Total number of notifications generated by a <*subscription*> or *<crossResourceSubsription>* resource due to events indicated in the *notificationEventType* attribute
* When the *notificationStatsEnable* attribute of a <*subscription*> or *<crossResourceSubsription>* resource is set to FALSE, the Hosting CSE shall stop collecting notification statistics for the <*subscription*> or *<crossResourceSubsription>* resource. The Hosting CSE shall maintain the current value of the *notificationStatsInfo* attribute until a subsequent update of the *notificationStatsEnable* attribute to a value of TRUE.

### \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of Change 1 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*