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| CHANGE REQUEST |
| Meeting ID:\* | ARC 37 |
| Source:\* | Max Zhang, BOE, zhangqiancto@boe.com.cnAlbert Zhao, BOE, zhaojunjie111@boe.com |
| Date:\* | 2018-mm-dd |
| Reason for Change/s:\* | See introduction |
| CR against: Release\* | Release 3 |
| CR against: WI\* | [ ]  Active <Work Item number> [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 3.12.0 |
| Clauses \* | 10.2.2.2 |
| Type of change: \* | [ ]  Editorial change[ ]  Bug Fix or Correction[x]  Change to existing feature or functionality[ ]  New feature or functionalityOnly ONE of the above shall be ticked |
| Impacted other TS/TR(s) | TS-0004 |
| 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 [x]  NO [ ]  |
| 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

Currently, in Clause 10.2.2, there are issues about re-registration to a new Registrar CSE (case e):

**Issue 1:**

In Step 005e:

*The receiver shall determine if an <AEAnnc> resource already exists on the IN-CSE that is associated with the Registree AE. If so, the Receiver shall send an UPDATE request for an <AEAnnc> resource to the IN-CSE in order to update the already existing <AEAnnc> resource on the IN-CSE that is associated with the Registree AE in case of re-registration. Otherwise, if there is no already existing <AEAnnc> resource associated with the Registree AE, the Receiver shall send a CREATE request for an <AEAnnc> resource to the IN-CSE in order to create an <AEAnnc> resource on the IN-CSE that is associated with the Registree AE.*

The underline text describes the situation that an <AEAnnc> resource already exists on the IN-CSE that is associated with the Registree AE in case of re-registration, the operation for the Receiver is to send an UPDATE request for an <AEAnnc> resource to the IN-CSE. This operation is conflict with the concept of Resource Announcement.

In Resource Announcement description:

*The original resource Hosting CSE shall first check if the parent resource of the original resource has a representation at the announcement target CSE. If that is the case, the announced resource shall be created as a child resource of that the parent resource. If that is not the case, the original Hosting CSE shall next check if it has announced itself to the announcement target CSE. If that is the case, the announced resource shall be created as a child resource of the original Hosting CSE's <remoteCSEAnnc> resource. Otherwise, the original Hosting CSE shall first announce itself by creating a <remoteCSEAnnc> resource as a child resource of the <CSEBase> resource of the announcement target CSE. Next, the announced resource shall be created as a child resource of the original Hosting CSE's <remoteCSEAnnc> resource.*

According to this processing at the Receiver when initiating resource announcement, the <AEAnnc> resource should be a child resource of the original Hosting CSE's <remoteCSEAnnc> resource or the representation of original Hosting CSE(<remoteCSE> ). So once the Registree AE changed its registration point, the <AEAnnc> resource should change the place too. Only sending an UPDATE request to the IN-CSE dose not make sence.







It is suggested that to keep the consistence of oneM2M , the the operation for the Receiver in the case of re-registration should be:

1. determine if an <AEAnnc> resource already exists on the IN-CSE that is associated with the Registree AE
2. if so, the Receiver shall firstly send an UPDATE request for an <AEAnnc> resource to the IN-CSE in order to update the already existing <AEAnnc> resource on the IN-CSE that is associated with the Registree AE(change the registrationStatus attribute of the existing <AEAnnc> resource), and secondly the Receiver shall send an CREATE request for an <AEAnnc> resource to the IN-CSE in order to create an <AEAnnc> resource on the IN-CSE that is associated with the Registree AE.
3. the IN-CSE validate the request
4. the IN-CSE change the registrationStatus attribute of the old <AEAnnc> resource (tied to the old registration point) to INACTIVE, then the IN-CSE shall create <AEAnnc> resource with an Unstructured-CSE-relative-Resource-ID equal to the value of the provided AE-ID-Stem, and shall transfer all child-resources under the old <AEAnnc> resource to the newly created or updated <AEAnnc> resource
5. The IN-CSE shall update all references to the SP-Relative-Resource-ID references (e.g. in Announce links, Notification targets, group Member ID, <accessControlPolicy> resource OriginatorID lists) tied to the prior AE registration point, so that these refer to the new AE registration point. The IN-CSE shall manage the change in AE registration point
6. Upon reception of a successful response from the IN-CSE, the Registrar CSE shall use the Unstructured-CSE-relative-Resource-ID equal to the AE-ID-Stem provided by the Registree AE for the <AE> resource to be created on the Registrar CSE and continue

**Issue 2:**

In case of a car driving slowly, the registration point changed from MN-CSE3 to MN-CSE2. The sensor shall firstly de-register to MN-CSE3, and then register to MN-CSE2.



During the procedure of deleting the <AE> resource (de-registration), the corresponding <AEAnnc> resource would be set to INACTIVE according to current TS-0001.



During the procedure of re-registration to a new Registrar CSE, which comes an issue, there is an existing <AEAnnc> resource on the IN-CSE, but its status is “INACTIVE”.

So follow the current standard procedure(UPDATE the link attribute), the only result is getting an <AEAnnc> resource with the status of “INACTIVE”.



It is suggested that the description here could be more rigorous:

1. determine if an <AEAnnc> resource already exists on the IN-CSE that is associated with the Registree AE
2. if so, the Receiver shall check the status of the already existing <AEAnnc> resource, if the status is not “INACTIVE”, the Receiver shall firstly send an UPDATE request for an <AEAnnc> resource to the IN-CSE in order to update the already existing <AEAnnc> resource on the IN-CSE that is associated with the Registree AE(change the registrationStatus attribute of the existing <AEAnnc> resource), and secondly the Receiver shall send an CREATE request for an <AEAnnc> resource to the IN-CSE in order to create an <AEAnnc> resource on the IN-CSE that is associated with the Registree AE. Otherwise, if there is no already existing <AEAnnc> resource associated with the Registree AE or the status of the already existing <AEAnnc> resource on the IN-CSE is “INACTIVE”, the Receiver shall send a CREATE request for an <AEAnnc> resource to the IN-CSE in order to create an <AEAnnc> resource on the IN-CSE that is associated with the Registree AE.
3. the IN-CSE validate the request
4. the IN-CSE change the registrationStatus attribute of the old <AEAnnc> resource (tied to the old registration point) to INACTIVE, then the IN-CSE shall create <AEAnnc> resource with an Unstructured-CSE-relative-Resource-ID equal to the value of the provided AE-ID-Stem, and shall transfer all child-resources under the old <AEAnnc> resource to the newly created or updated <AEAnnc> resource
5. The IN-CSE shall update all references to the SP-Relative-Resource-ID references (e.g. in Announce links, Notification targets, group Member ID, <accessControlPolicy> resource OriginatorID lists) tied to the prior AE registration point, so that these refer to the new AE registration point. The IN-CSE shall manage the change in AE registration point
6. Upon reception of a successful response from the IN-CSE, the Registrar CSE shall use the Unstructured-CSE-relative-Resource-ID equal to the AE-ID-Stem provided by the Registree AE for the <AE> resource to be created on the Registrar CSE and continue

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

#### 10.2.2.2 Create *<AE>*

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**Case e) AE-ID-Stem starts with 'S' and AE includes an AE-ID-Stem (re-registration to a new Registrar CSE)**

**Condition:** In **Step 003** it was determined that the AE-ID-Stem value to be used for the Registree AE starts with an 'S' character and a specific AE-ID-Stem was provided with the CREATE request of the Registree AE. This case applies when the Registree AE is supposed to use an M2M-SP-assigned AE-ID and wants to perform a re-registration to a new Registrar CSE, using its already assigned AE-ID-Stem from a registration to a prior Registrar CSE:

* **Step 005e:** The receiver shall determine if an *<AEAnnc>* resource already exists on the IN-CSE that is associated with the Registree AE. If so, the Receiver shall check the status of the already existing <AEAnnc> resource, if the status is not “INACTIVE”, the Receiver shall send an UPDATE request for an *<AEAnnc>* resource to the IN-CSE in order to update the status of the already existing *<AEAnnc>* resource on the IN-CSE that is associated with the Registree AE in case of re-registration, then the Receiver shall send an CREATE request for an <AEAnnc> resource to the IN-CSE in order to create an <AEAnnc> resource on the IN-CSE that is associated with the Registree AE. Otherwise, if there is no already existing <*AEAnnc*> resource associated with the Registree AE or the status of the already existing <AEAnnc> resource on the IN-CSE is “INACTIVE”, the Receiver shall send a CREATE request for an *<AEAnnc>* resource to the IN-CSE in order to create an *<AEAnnc>* resource on the IN-CSE that is associated with the Registree AE. The following information shall be sent with that UPDATE or CREATE request:
* The ***To*** parameter shall contain the SP-relative-Resource-ID format of the Resource ID for the *<AEAnnc>* resource which shall be constructed from the CSE-ID of the IN-CSE and the AE-ID-Stem that the Registree AE provided.
* ***From*** parameter of the CREATE or UPDATE request for the *<AEAnnc>* resource shall be set to the SP-relative-CSE-ID or Absolute-CSE-ID followed by ‘/’ and the AE-ID-Stem value.
* The registrationStatus attribute of the *<AEAnnc>* resource shall be updated to appropriate value.
* The link attribute of the *<AEAnnc>* resource shall be set, to the SP-Relative-Resource-ID format of a - not yet existent - *<AE>* resource hosted on the Registrar CSE constructed with an Unstructured‑CSE-relative-Resource-ID that is equal to the AE-ID-Stem value used for the Registree AE.
* The labels attribute of the *<AEAnnc>* resource shall be set or updated to the concatenation of the string 'Credential-ID:' and the Credential-ID of the Security Association used by the Registree AE, replacing the existing entry starting with 'Credential-ID:' if present. If no Security Association was used by the Registree AE, a value of 'None' shall be used for Credential-ID.
* **Step 006e:** Upon reception of the CREATE or UPDATE *<AEAnnc>* request, the IN-CSE shall validate the request and verify whether the values suggested to be set or to be updated for the Credential-ID included in the labels attribute - if any - and the CSE-ID of the Registrar CSE included in the ***From*** parameter still match with any of the allowed combinations of *App‑ID* attribute and the AE-ID-Stem in the *link* attribute according to the applicable service subscription profile.
* **Step 007e:** When the validation and verification in **Step 006e** completed successfully, the IN-CSE shall create *<AEAnnc>* resource with an Unstructured-CSE-relative-Resource-ID equal to the value of the provided AE-ID-Stem or update the *<AEAnnc>* resource in line with the parameters provided in step 005e. The IN-CSE shall change the *registrationS*tatus attribute of the old <*AEAnnc*> resource (tied to the old registration point) to INACTIVE, and shall transfer all child-resources under the old <*AEAnnc*> resource to the newly created <*AEAnnc*> resource. The IN-CSE shall update all references to the SP-Relative-Resource-ID references (e.g. in Announce links, Notification targets, group Member ID, <accessControlPolicy> resource *OriginatorID* lists) tied to the prior AE registration point, so that these refer to the new AE registration point. The IN-CSE shall manage the change in AE registration point, as described in clause 10.2.xx1.1.
* **Step 008e:** Upon reception of a successful response from the IN-CSE, the Registrar CSE shall use the Unstructured-CSE-relative-Resource-ID equal to the AE-ID-Stem provided by the Registree AE for the *<AE>* resource to be created on the Registrar CSE and continue with action (4) of **Step 002** of the non-registration related CREATE procedure in clause 10.1.2.

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

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.?