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| CHANGE REQUEST |
| Meeting:\* | ARC#25 |
| Source:\* | C-DOT |
| Date:\* | 2016-09-14 |
| Contact:\* | Poornima (poornima@cdot.in), Suman(ssheoran@cdot.in)  |
| Reason for Change/s:\* | See the introduction  |
| CR against: Release\* | Release 2 |
| CR against: WI\* | [ ]  Active <Work Item number> [ ]  MNT maintenace / < Work Item number(optional)>[x]  STE Small Technical Enhancements / < Work Item number (optional)>Only ONE of the above shall be ticked |
| CR against: TS/TR\* | TS-0001 v2.10.0 |
| Clauses/Sub Clauses\* | Section 9.6.5,7.1.17 |
| 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 |
| 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 [ ] This CR is a mirror CR? YES [ ]  if YES, please indicate the document number of the original CR: : NO [x]   |
| Template Version:27 May 2015 (Dot 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 separated “mirror CR” should be posted at the same time of this CR

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 sections need not show surrounding clauses as long as the proposed section number clearly shows where the new section 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

In TS-0001, Section 10.1.1.2.2, it is mentioned that if an Originator comes with an AE-ID-Stem then it is a case of re-registration as highlighted:

It is clearly mentioned in TS-0001 that AE-ID is assigned after registration.

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| **Case b) AE-ID-Stem starts with 'S' and AE includes an AE-ID-Stem (re-registration):****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 using its already assigned AE-ID-Stem:* **Step 005b:** 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. The following information shall be sent with that 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 UPDATE request for the *<AEAnnc>* resource shall be set to the SP-relative-CSE-ID or Absolute-CSE-ID followed by
* The link attribute of the *<AEAnnc>* resource shall be updated 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 updated with 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 no Security Association was used by the Registree AE, a value of 'None' shall be used for Credential-ID.
* **Step 006b:** Upon reception of the UPDATE *<AEAnnc>* request, the IN-CSE shall validate the request and verify whether the values suggested 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* attributeaccording to the applicable service subscription profile.
* **Step 007b:** When the validation and verification in **Step 006b** completed successfully, the IN-CSE shall update the *<AEAnnc>* resource.
* **Step 008b:** 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 in the *link* attributefor 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 10.1.1.1.

**Case c) AE-ID-Stem starts with 'C' and AE does not include an AE-ID-Stem (initial registration):****Condition:** In **Step 003** it was determined that the AE-ID-Stem value to be used for the Registree AE starts with an 'C' character but no specific AE-ID-Stem was provided with the CREATE request of the Registree AE. This case applies when the Registree AE is not supposed to use an M2M-SP-assigned AE-ID and wants to perform the initial registration:**Step 005c:** The Registrar CSE shall select an AE-ID-Stem starting with a 'C' character and use it for the Unstructured-CSE-relative-Resource-ID 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 10.1.1.1.**Case d) AE-ID-Stem starts with 'C' and AE includes an AE-ID-Stem (re-registration):****Condition:** In **Step 003** it was determined that the AE-ID-Stem value to be used for the Registree AE starts with an 'C' 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 not supposed to use an M2M-SP-assigned AE-ID and wants to perform a re-registration:* **Step 005d:** The Registrar CSE shall use the Unstructured-CSE-relative-Resource-ID equal to the AE-ID-Stem in the ***From*** parameter 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 10.1.1.1.
 |

While in TS-0003, section 8.3.2.1, it is assumed that AE-ID is configured at bootstrap instruction configuration(Enrolee's assigned AE-ID)

**TS-0003: (Please see text highlighted in yellow)**

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| **Bootstrap Instruction Configuration:** The Enrolee and M2M Enrolment Function are configured with the information needed for authorizing the remote provisioning:         The Enrolee is configured with (or otherwise obtains) the following arguments to initiate remote provisioning:         The Enrolment Target identity: Identifying the Enrolment Target for which the Enrolee is to be provisioned.         The Enrolee associates these arguments with the M2M Enrolment Function. The M2M Enrolment Function can be identified to the Enrolee using the Pre-Provisioned Symmetric Enrolee Key Identifier (KpmId) or the M2M Enrolment Function URI.Enrolment Expiry: Life Time to be applied for the key generated, i.e. Ke as mentioned in clause 10.7.         M2M Enrolment Function is configured with the following arguments to authorize the M2M Enrolment Function to remotely provision the Enrolee for an Enrolment Target:         The Enrolment Target Identity: Identifying the Enrolment Target for which the Enrolee is to be provisioned.         Enrolee's assigned CSE-ID or AE-ID (Enrolee-ID). The M2M Enrolment Function is to provide this entity identity for the Enrolee with the Km or Kpsa to the Enrolment Target, when requested by the Enrolment Target.         The M2M Enrolment Function associates these arguments with an Enrolee. The Enrolee can be identified to the M2M Enrolment Function using the Pre-Provisioned Symmetric Enrolee Key Identifier (KpmId).Enrolment Expiry: Life Time to be applied for the keys generated, i.e. Ke. The M2M Enrolment Function may provide this lifetime along with Km or Kpsa to the Enrolment Target. |

The CR proposes to remove this conflict by introducing a new attribute called AE-Sec-ID in TS-0001 for <AE> resource and referring AE-Sec-ID attribute in TS-0003 instead of AE-ID as AE-ID will come in existence only after creation of resource.

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

### 9.6.5 Resource Type *AE*

An *<AE>* resource shall represent information about an Application Entity registered to a CSE.



Figure 9.6.5-1: Structure of *<AE>* resource

The *<AE>* resource shall contain the child resources specified in table 9.6.5-1.

Table 9.6.5-1: Child resources of *<AE>* resource

| Child Resources of *<AE>* | Child Resource Type | Multiplicity | Description | *<AEAnnc>* Child Resource Types |
| --- | --- | --- | --- | --- |
| *[variable]* | *<semanticDescriptor>* | 0..n | See clause 9.6.30 | *<semanticDescriptor>, <semanticDescriptorAnnc>* |
| *[variable]* | *<subscription>* | 0..n | See clause 9.6.8 | *<subscription>* |
| *[variable]* | *<container>* | 0..n | See clause 9.6.6 | *<container> <containerAnnc>* |
| *[variable]* | *<flexContainer>* | 0..n | See clause 9.6.35 | *<flexContainer>**<flexContainerAnnc>* |
| *[variable]* | *<group>* | 0..n | See clause 9.6.13 | *<group>**<groupAnnc>* |
| *[variable]* | *<accessControlPolicy>* | 0..n | See clause 9.6.2 | *<accessControlPolicy>**<accessControlPolicyAnnc>* |
| *[variable]* | *<schedule>* | 0..1 | See clause 9.6.9 | *<scheduleAnnc>* |
| *[variable]* | *<pollingChannel>* | 0..1 | See clause 9.6.21When the AE is request-unreachable, the AE should create this *<pollingChannel>* resource and perform long polling. The <*pollingChannel*> shall be utilized by the parent resource | *None* |
| *trafficPattern* | *<trafficPattern>* | 0..n | See clause 9.6.41 | *<trafficPatternAnnc>* |
| *[variable]* | *<dynamicAuthorizationConsultation>* | 0..n | See clause 9.6.40 | *None* |
| *[variable]* | *<timeSeries>* | 0..n | See clause 9.6.36 | *<timeSeries>**<timeSeriesAnnc>* |

The *<AE>* resource shall contain the attributes specified in table 9.6.5-2.

Table 9.6.5-2: Attributes of *<AE>* resource

| Attributes of *<AE>* | Multiplicity | RW/RO/WO | Description | *<AEAnnc>* Attributes |
| --- | --- | --- | --- | --- |
| *resourceType* | 1 | RO | See clause 9.6.1.3. | NA |
| *resourceID* | 1 | RO | See clause 9.6.1.3. Contains the AE-ID-Stem of the AE (see clause 7.2 on identifier formats and clause 10.1.1.2.2 for AE registration procedure). | NA |
| *resourceName* | 1 | WO | See clause 9.6.1.3. | NA |
| *parentID* | 1 | RO | See clause 9.6.1.3. | NA |
| *expirationTime* | 1 | RW | See clause 9.6.1.3. | MA |
| *accessControlPolicyIDs* | 0..1 (L) | RW | See clause 9.6.1.3. | MA |
| *creationTime* | 1 | RO | See clause 9.6.1.3. | NA |
| *lastModifiedTime* | 1 | RO | See clause 9.6.1.3. | NA |
| *labels* | 0..1 (L) | RW | See clause 9.6.1.3. | MA |
| *announceTo* | 0..1 (L) | RW | See clause 9.6.1.3. | NA |
| *announcedAttribute* | 0..1 (L) | RW | See clause 9.6.1.3. | NA |
| *dynamicAuthorizationConsultationIDs* | 0..1 (L) | RW | See clause 9.6.1.3. | OA |
| *appName* | 0..1 | RW | The name of the application, as declared by the application developer(e.g. "HeatingMonitoring").Several sibling resources may share the *appName*. | OA |
| *App-ID* | 1 | WO | The identifier of the Application (see clause 7.1.3). | OA |
| *AE-ID* | 1 | RO | The identifier of the Application Entity (see clause 7.1.2). | OA |
| *pointOfAccess* | 0..1 (L) | RW | The list of addresses for communicating with the registered Application Entity over Mca reference point via the transport services provided by Underlying Network (e.g. IP address, FQDN, URI). This attribute shall be accessible only by the AE and the Hosting CSE.If this information is not provided and the <pollingChannel> resource does exist, the AE should use *<pollingChannel>* resource. Then the Hosting CSE can forward a request to the AE without using the PoA. | OA |
| *ontologyRef* | 0..1 | RW | A URI of the ontology used to represent the information that is managed and understood by the AE. | OA |
| *requestReachability* | 1 | RW | If the AE that created this *<AE>* resource can receive a request, this attribute is set to "TRUE" otherwise "FALSE" | OA |
| *nodeLink* | 0..1 | RW | The *resource identifier* of a *<node>* resource that stores the node specific information of the node on which the AE represented by this *<AE>* resource resides. | OA |
| *contentSerialization* | 0..1 (L) | RW | The list of supported serializations of the ***Content*** primitive parameter for receiving a request from its registrar CSE. (e.g. XML, JSON). The list shall be ordered so that the most preferred format comes first. | OA |
| *e2eSecInfo* | 0..1 | RW | See clause 9.6.1.3. | MA |
| *AE-Sec-ID* | 1 | WO | The identifier of Application Entity at bootstrap (see clause 7.1.17) | OA |

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2.

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

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

### 7.1.17 AE Security Identifier (AE-Sec-ID)

An identifier for AE requiring at bootstrap.

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

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 only include a proposal to change only 3 tables. Includes any changes to references, definitions, and acronyms in the same deliverable?
* 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 sections need not show surrounding clauses as long as the proposed section number clearly shows where the new section 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.?