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| CHANGE REQUEST |
| Meeting:\* | ARC#25 |
| Source:\* | C-DOT |
| Date:\* | 2016-09-14 |
| Contact:\* | Poornima (poornima@cdot.in), Sachin(sachin@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\* | 9.6.4 |
| Type of change: \* | [ ]  Editorial change[ ]  Bug Fix or Correction[ ]  Change to existing feature or functionality[x]  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 CSE registration, two <remoteCSE> resources are created, one at Originator and one at Receiver.

Below given text describe the possible scenarios where address of remotely created < remoteCSE> is required.

**Case 1 :** In order to update or delete or retrieve the created <remoteCSE> resource, it is required that the address of the created <remoteCSE> should be known to both (Originator and Receiver) as highlighted below.

But currently, it is not mentioned where to keep the address of created <remoteCSE> resource at the originator as well as receiver.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **10.1.4.2 Deregistration related DELETE procedure**10.1.4.2.0 OverviewThis clause describes the DELETE procedure for <remoteCSE> and <AE> resource type.10.1.4.2.1 CSE Deregistration procedureThe procedure for CSE Deregistration follows the procedure described in clause 10.1.4.1, but with some exceptions. Below is the detailed description on how to perform the CSE Deregistration and which part of the procedure deviates from the one described in clause 10.1.4.1.The Deregistration procedure accompanies the deletion of two resources (a <remoteCSE> on the Hosting CSE and a <remoteCSE> on the Originator CSE) rather than one resource. The Deregistration procedure can be initiated by either Registree CSE or Registrar CSE.Figure 10.1.4.2.1-1: Procedure for DELETING a <remoteCSE> Resource**Step 001:** See clause 10.1.4.1.**Step 002:** See clause 10.1.4.1.**Step 003:** See clause 10.1.4.1.**Step 004:** The Originator, upon receipt of the DELETE response, shall delete a <remoteCSE> resource locally under its <CSEBase> resource.**General Exceptions:**All exceptions from 10.1.4.1 are applicable; in addition the following exception may occur:1. If the Receiver rejects the DELETE request and responds with an error in the DELETE response, the Originator cannot perform the action described in the Step 004.

10.2.2.2 Retrieve *<remoteCSE>*This procedure shall be used for retrieving the representation of the *<remoteCSE>* resource with its attributes.Table 10.2.2.2-1: *<remoteCSE>* RETRIEVE

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| *<remoteCSE>* RETRIEVE |
| Associated Reference Point | Mca, Mcc and Mcc' |
| Information in Request message | All parameters defined in table 8.1.2-3 apply |
| Processing at Originator before sending Request | According to clause 10.1.2 |
| Processing at Receiver | According to clause 10.1.2 |
| Information in Response message | All parameters defined in table 8.1.3-1 apply with the specific details for:***Content*:** attributes of the *<remoteCSE>* resource as the Originator requested |
| Processing at Originator after receiving Response | According to clause 10.1.2 |
| Exceptions | According to clause 10.1.2 |

10.2.2.3 Update *<remoteCSE>*This procedure shall be used for updating the attributes and the actual data of an *<remoteCSE>* resource.Table 10.2.2.3-1: *<remoteCSE>* UPDATE

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| *<remoteCSE>* UPDATE |
| Associated Reference Point | Mcc and Mcc' |
| Information in Request message | All parameters defined in table 8.1.2-3 apply with the specific details for:***Content*:** attributes of the *<remoteCSE>* resource as defined in clause 9.6.4 which need be updated |
| Processing at Originator before sending Request | According to clause 10.1.3 |
| Processing at Receiver | According to clause 10.1.3If the *pointOfAccess* attribute is updated and there are any messages in the buffer for store-and-forward procedure, Receiver shall send all buffered messages |
| Information in Response message | According to clause 10.1.3 |
| Processing at Originator after receiving Response | According to clause 10.1.3 |
| Exceptions | According to clause 10.1.3 |

10.2.2.4 Delete *<remoteCSE>*This procedure shall be used for deleting the *<remoteCSE>* resource with all related information.Table 10.2.2.4-1: *<remoteCSE>* DELETE

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| *<remoteCSE>* DELETE |
| Associated Reference Point | Mca, Mcc and Mcc' |
| Information in Request message | All parameters defined in table 8.1.2-3 apply |
| Processing at Originator before sending Request | According to clause 10.1.4 |
| Processing at Receiver | According to clause 10.1.4If the IN-CSE is the receiver and it has created an entry in the DNS to allow access to the CSE across multiple M2M domains, then it shall delete the entry from the DNS |
| Information in Response message | According to clause 10.1.4 |
| Processing at Originator after receiving Response | According to clause 10.1.4 |
| Exceptions | According to clause 10.1.4 |

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**Case 2:** Also in Case of resource Announcement ,to check that the Hosting CSE of original resource is registered at the target CSE , if it is registered then the address of <remoteCSE> is required to create the announced resource .

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| * If *announceTo* attribute contains a list of CSE-ID(s) ,
* Check if the parent resource of the original resource has been announced to the announcement target CSE(s).
* If yes , announce the original resource by sending a CREATE Request to the CSE(s) specified in the *announceTo* and that targets the announced parent resource.
* If no, check if the CSE hosting the original resource has registered and created a <remoteCSE> resource to the announcement target CSE(s).
	+ - If yes , announce the original resource by sending a CREATE Request to the CSE(s) specified in the *announceTo* and that targets the <remoteCSE> of the CSE hosting the original resource.
		- If no, then check if the CSE hosting the original resource has been announced to the announcement target CSE(s) and created a <remoteCSEAnnc> resource.
			* If yes, announce the original resource by sending a CREATE Request to the CSE(s) specified in the *announceTo* and that targets the <remoteCSEAnnc> resource
			* If no, then CSE hosting the original resource shall perform the following steps.
				+ Announce itself to the CSE(s) specified in the *announceTo* attribute such that its <remoteCSEAnnc> resource is present at the announcement target CSE(s).
				+ Send a CREATE Request to the CSE(s) specified in the *announceTo* of the request and that target the <remoteCSEAnnc> resource.
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### -----------------------------------Start of change 1-------------------------------------------

### 9.6.4 Resource Type *remoteCSE*

A *<remoteCSE>* resource shall represent a Registree CSE that is registered to the Registrar CSE. *<remoteCSE>* resources shall be located directly under the *<CSEBase>* resource of Registrar CSE.

Similarly *<remoteCSE>* resource shall also represent a Registrar CSE. *<remoteCSE>* resource shall be located directly under the *<CSEBase>* resource of Registree CSE.

For example, when CSE1 (Registree CSE) registers with CSE2 (Registrar CSE), there will be two *<remoteCSE>* resources created: one in CSE1: *<CSEBase1>/<remoteCSE2>* and one in CSE2: *<CSEBase2>/<remoteCSE1>.*

Note that the creation of the two resources does not imply mutual registration. The *<CSEBase1>/<remoteCSE2>* does not mean CSE2 registered with CSE1 in the example above.



Figure 9.6.4-1: Structure of *<remoteCSE>* resource

The *<remoteCSE>* resource shall contain the child resources specified in table 9.6.4-1. The *<remoteCSE>* resource may contain *<remoteCSEAnnc>* child resources.

Table 9.6.4-1: Child resources of *<remoteCSE>* resource

| Child Resources of *<remoteCSE>* | Child Resource Type | Multiplicity | Description | *<remoteCSEAnnc>* Child Resource Types |
| --- | --- | --- | --- | --- |
| *[variable]* | *<container>* | 0..n | See clause 9.6.6 | *<container>*  |
| *[variable]* | *<containerAnnc>* | 0..n | Announced variant of <*container>.* See clause 9.6.6 | *<containerAnnc>* |
| *[variable]* | *<flexContainer>* | 0..n | See clause 9.6.35 | *<flexContainer>* |
| *[variable]* | *<flexContaineAnnc>* | 0..n | Announced variant of <flexC*ontainer>.* See clause 9.6.35 | *<flexContainerAnnc>* |
| *[variable]* | *<group>* | 0..n | See clause 9.6.13 | *<group>* |
| *[variable]* | *<groupAnnc>* | 0..n | Announced variant of <*group>.* See clause 9.6.13 | *<groupAnnc>* |
| *[variable]* | *<accessControlPolicy>* | 0..n | See clause 9.6.2 | *<accessControlPolicy>* |
| *[variable]* | *<accessControlPolicyAnnc>* | 0..n | Announced variant of <*accessControlPolicy>.* See clause 9.6.2 | *<accessControlPolicyAnnc>* |
| *[variable]* | *<subscription>* | 0..n | See clause 9.6.8 | *<subscription>* |
| *[variable]* | *<pollingChannel>* | 0..1 | See clause 9.6.21. If *requestReachability* is FALSE, the CSE that created this *<remoteCSE>* resource should create a *<pollingChannel>* resource and perform long polling. The <*pollingChannel*> shall be utilized by the the parent resource. | *None* |
| *[variable]* | *<schedule>* | 0..1 | This resource defines the reachability schedule information of the node. See clause 9.6.9 for *<schedule>*. | *<scheduleAnnc>* |
| *[variable]* | *<nodeAnnc>* | 0..n | Announced variant of <*node>.* This announced resource is assoiated with a <node> resource that is hosted on a CSE which is represented by the parent <*remoteCSE*> or <*remoteCSEAnnc*> resource. See clause 9.6.18 for *<node>*. | *<nodeAnnc>* |
| *[variable]* | *<dynamicAuthorizationConsultation>* | 0..n | See clause 9.6.40 |  |
| *[variable]* | *<timeSeries>* | 0..n | See clause 9.6.36 | *<timeSeries>* |
| *[variable]* | *<timeSeriesAnnc>* | 0..n | Announced variant of <*timeSeries>.* See clause 9.6.36 | *<timeSeriesAnnc>* |
| *[variable]* | *<remoteCSEAnnc>* | 0..n | Announced variant of <*remoteCSE>* defined in the present clause 9.6.4. | *<remoteCSEAnnc>* |
| *[variable]* | *<AEAnnc>* | 0..n | Announced variant of <*AE>.* See clause 9.6.5 | <*AEAnnc>* |
| *[variable]* | *<locationPolicyAnnc>* | 0..n | Announced variant of <*locationPolicy>.* See clause 9.6.10 | <*locationPolicyAnnc>* |

The <remoteCSE> resource shall contain the attributes specified in table 9.6.4-2.

Table 9.6.4-2: Attributes of *<remoteCSE>* resource

| Attributes of *<remoteCSE>* | Multiplicity | RW/RO/WO | Description | *<remoteCSEAnnc>* Attributes |
| --- | --- | --- | --- | --- |
| *resourceType* | 1 | RO | See clause 9.6.1.3. | NA |
| *resourceID* | 1 | RO | See clause 9.6.1.3. | NA |
| *resourceName* | 1 | WO | See clause 9.6.1.3. | NA |
| *parentID* | 1 | RO | See clause 9.6.1.3. | NA |
| *creationTime* | 1 | RO | See clause 9.6.1.3. | NA |
| *lastModifiedTime* | 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 |
| *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 |
| *cseType* | 0..1 | WO | Indicates the type of CSE represented by the created resource.* Mandatory for an IN-CSE, hence multiplicity (1).
* Its presence is subject to SP configuration in case of an ASN-CSE or a MN-CSE.
 | OA |
| *pointOfAccess* | 0..1 (L) | RW | For request-reachable remote CSE it represents the list of physical addresses to be used to connect to it (e.g. IP address, FQDN). If this information is not provided and <pollingChannel> resource does exis, the CSE should use *<pollingChannel>* resource. Then the Hosting CSE can forward a request to the CSE without using the PoA. | OA |
| *CSEBase* | 1 | WO | The address of the <*CSEBase>* resource represented by this *<remoteCSE>* resource. | OA |
| *CSE-ID* | 1 | WO | The CSE identifier of the remote CSE represented by this <*remoteCSE*> resource in SP-relative CSE-ID format (clause 7.2). | OA |
| *M2M-Ext-ID* | 0..1 | RW | Supported when Registrar is IN-CSE.See clause 7.1.8 where this attribute is described. This attribute is used only for the case of dynamic association of M2M-Ext-ID and CSE-ID. | NA |
| *Trigger-Recipient-ID* | 0..1 | RW | Supported when Registrar is IN-CSE. See clause 7.1.10 where this attribute is described. This attribute is used only for the case of dynamic association of M2M‑Ext-ID and CSE-ID. | NA |
| *requestReachability* | 1 | RW | If the CSE that created this *<remoteCSE>* resource can receive a request from other AE/CSE(s), this attribute is set to "TRUE" otherwise "FALSE" (see note) | OA |
| *nodeLink* | 0..1 | RW | The *resource identifier* of a *<node>* resource that stores the node specific information of the node on which the CSE represented by this *<remoteCSE>* resource resides. | OA |
| *e2eSecInfo* | 0..1 | RW | See clause 9.6.1.3. | MA |
| *triggerReferenceNumber* | 0..1 | RW | This is to identify device trigger procedure request. This attribute is used only for device trigger and assigned by the IN-CSE.  | NA |
| *selfRemoteCSEResourceID* | 0..1 | RO | This is the resource id of <remoteCSE> resource created for its own CSE. | NA |
| NOTE: Even if this attribute is set to "FALSE", it does not mean it AE/CSE is always unreachable by all entities. E.g. the requesting AE/CSE is behind the same NAT, so it can communicate within the same NAT. |

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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 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.?