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| CHANGE REQUEST |
| Meeting ID:\* |  SDS #57 |
| Source:\* | Poornima Shandilya, C-DOT, poornima@cdot.inPrateek Varshney, C-DOT, prateekv@cdot.in  |
| Date:\* | 2022-11-24 |
| Reason for Change/s:\* | See the introduction |
| CR against: Release\* | Release 4 |
| 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 4\_16\_1 |
| Clauses \* | 10.1.4 |
| 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 to add a check for Update of *expirationTime* attribute of a <resource> in clause 10.1.4 UPDATE (U) to align it with below highlighted text of clause 10.1.2 CREATE (C).

### 10.1.2 CREATE (C)

**Originator** requests to create a resource by using the CREATE method. See clause 8.1.2 for the parameters to be included in the Request message.

**Hosting CSE:** If the request is allowed by the given privileges and service subscription limits of the Originator, the Receiver shall create the resource.



Figure 10.1.2-1: Procedure for CREATing a Resource

**Step 001:** The Originator shall send mandatory parameters and may send optional parameters in Request message for CREATE operation as specified in clause 8.1.2.

**Step 002:** The Receiver shall:

1. Check if the Originator has the appropriate privileges for performing the request. Privileges of the targeted resource are linked by the *accessControlPolicyIDs* attribute. Different handlings for a target resource which does not have the *accessControlPolicyIDs* attribute by the resource type definition(e.g. *schedule* resource type) or a target resource which has the definition but the attribute has no value and so on are defined in table 9.6.1.3.2-1 (common attributes description).
2. Check if the CREATE operation complies with service subscription limits defined within the Originator's service subscription profile resources (i.e. <*m2mServiceSubscriptionProfile*>, <*serviceSubscribedNode*>, <*serviceSubscribedAppRules*> and <*serviceSubscribedUserProfile*> resources). Further details for checking the service subscription limits of the Originator are defined in oneM2M TS-0004 [3].
3. Verify that the name for the created resource as suggested by the *resourceName* attribute in ***Content*** parameter, if provided by the Originator in the CREATE Request message, does not already exist among child resources of the target resource. If no child within the targeted resource exists with the same *resourceName* as suggested by the Originator, use that name for the resource to be created. If a child uses the resourceName already, the Receiver shall reject the request and return an error to the Originator. If the name was not suggested by the Originator, assign a name generated by the Receiver to the resource to be created.

NOTE: The name of a resource in general is not the same as its Resource ID. While a name of a resource only needs to be unique among the children of the same parent resource, the Resource ID needs to be unique in context of the Hosting CSE. When the name of the resource to be created is assigned by the Receiver, it may choose to use a name that is identical to the Unstructured-CSE-relative-Resource ID.

1. Assign a Resource-ID (see *resourceID* attribute in common attribute table 9.6.1.3.2-1) to the resource to be created.
2. Assign values for mandatory RO mode attributes of the resource and override values provided for other mandatory attributes, where needed, and where allowed by the resource type definition and if not provided by the Originator itself.
3. The Receiver shall assign a value to the following common attributes specified in clause 9.6.1.3:

a) *parentID*;

b) *creationTime*;

c) *expirationTime*: if not provided by the Originator, the Receiver shall assign the maximum value possible (within the restriction of the Receiver policies). If the value provided by the Originator cannot be supported, due to either policy or subscription restrictions, the Receiver will assign a new value;

d) *lastModifiedTime*: which is equals to the *creationTime*;

e) Any other RO (Read Only) attributes within the restriction of the Receiver policies.

1. The Receiver shall check whether a *creator* attribute is included in the ***Content*** parameter of the request. If included, the *creator* attribute shall not have a value in the ***Content*** parameter of the request. If the *creator* attribute is included in the request and the *creator* attribute is supported for the type of resource being created, then the Receiver shall include the *creator* attribute in the resource to be created. The Receiver shall assign a value equal to the value carried in the ***From*** request parameter. In the event that the originator provides a value for the *creator* attribute within the request, this request shall be deemed invalid.

 On the other hand if the *creator* attribute is not included in the ***Content*** parameter of the request, then the Receiver shall not include the *creator* attribute in the resource to be created.

1. The Receiver shall check whether the *accessControlPolicyID* attribute is supported for the type of created resource. If supported and an *accessControlPolicyID* attribute is included in the ***Content*** parameter of the request, then the Receiver shall assign the *accessControlPolicyID* attribute of the created resource with the value defined in the request. If an *accessControlPolicyID* attribute is not included in the ***Content*** parameter of the request, then the Receiver shall check whether the *defaultAccessControlPrivileges* attribute of the Originator's <*m2mServiceSubscriptionProfile*> resource is configured. If configured, the Receiver shall assign the *accessControlPolicyID* attribute of the created resource with the value defined in the *defaultAccessControlPrivileges* attribute. If the *defaultAccessControlPrivileges* attribute of the Originator's <*m2mServiceSubscriptionProfile*> resource is not configured, the Receiver shall not assign a value to the *accessControlPolicyID* attribute of the created resource and default access policies as defined in clause 9.6.1.3.2 shall apply.
2. On successful validation of the Create Request, the Receiver shall create the requested resource.
3. The Receiver shall check if the created child resource leads to changes in its parent resource's attribute(s), if so the parent resource's attribute(s) shall be updated.
4. The Receiver shall check if the created child resource references an Application Entity Resource ID, if so the Hosting CSE shall send a NOTIFY request to the IN-CSE, requesting to add the entry to the <AEContactList> resource.

**Step 003:** The Receiver shall respond with mandatory parameters and may send optional parameters in Response message for CREATE operation as specified in clause 8.1.3.

**General Exceptions:**

1. The Originator does not have the privileges to create a resource on the Receiver. The Receiver responds with an error.
2. The resource with the specified name (if provided) already exists at the Receiver. The Receiver responds with an error.

The provided information in ***Content*** is not accepted by the Receiver (e.g. missing mandatory parameter). The Receiver responds with an error.

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

### 10.1.4 UPDATE (U)

The UPDATE operation shall be used for updating the information stored for any of the attributes at a target resource. Especially important is the *expirationTime*, since a failure in refreshing this attribute may result in the deletion of the resource. The Originator CSE or AE can request to update, create or delete specific attribute(s) at the target resource by including the name of such attribute(s) and its values in the ***Content*** parameter of the request message.

**Originator** requests update any of the attributes at the target resource by using UPDATE Request message. The Originator shall send new (proposed) values for the attribute(s) that need to be updated. The UPDATE operation allows to modify or create previously non-existing attributes of the resource type (defined in clause 9.6) that are indicated as "RW" (Read Write) for the specific resource type definition.

The **Originator** requests to delete attributes at the target resource by using UPDATE Request message. The Originator shall send the name of the attributes to be deleted (defined in clause 9.6) for the specific resource type with their value set to NULL, in the Request message.

See clause 8.1.2 for the information to be included in the Request message.

The **Receiver** verifies the existence of the addressed resource, the validity of the attributes provided, the privileges to modify them and the service subscription limits of the Originator. After successful verification, the Receiver shall update the attributes provided and shall return a Response message to the Originator with the operation results as specified in clause 8.1.3.

If the attributes provided do not exist, after verifying the existence of the addressed resource, the Receiver validates the attributes provided and the privileges to create them. On successful validation, the Receiver shall create the attributes provided with their associated values and shall return a Response message to the Originator with the operation results as specified in clause 8.1.3.

If the attributes provided have their value set to NULL, after verifying the existence of the addressed resource, the Receiver validates the attributes provided and the Update privileges of the Originator. On successful validation, the Receiver shall delete such attributes and shall return a Response message to the Originator with the operation results as specified in clause 8.1.3.



Figure 10.1.4-1: Procedure for UPDATing a Resource

**Step 001:** The Originator shall send mandatory parameters and may send optional parameters in Request message for UPDATE operation as specified in clause 8.1.2.

**Step 002:** The Receiver shall verify the existence (including ***Filter Criteria*** checking, if it is given) of the requested resource and if the Originator has the appropriate privilege to update the resource. This privilege checking follows the rules defined in table 9.6.1.3.2-1 (common attributes description). The Receiver shall check whether *expirationTime* attribute is present in the **Content** parameter of the request and if the value provided by the Originator cannot be supported, due to either policy or subscription restrictions, the Receiver shall assign a new value. The Receiver shall also perform an additional check whether a *custodian* attribute is included in the ***Content*** parameter of the request. If included, the Receiver shall check if the resource has a *custodian* attribute already configured. If the *custodian* attribute is configured in the resource, the Receiver shall check if it is configured with the identifier of the Originator and therefore permitted to update the *custodian* attribute. Otherwise, if the *custodian* attribute is not configured in the resource, then the Receiver shall check if the Originator is the Originator that originally created the targeted resource and therefore is permitted to update the *custodian* attribute. On successful verification, the Receiver shall update the resource as requested. If the attributes provided do not exist, the Receiver shall verification if the Originator has appropriate privileges to create the attributes at the target resource. The Receiver shall also verify if the UPDATE operation complies with service subscription limits defined within the Originator's service subscription profile resources (i.e. <*m2mServiceSubscriptionProfile*>, <*serviceSubscribedNode*>, <*serviceSubscribedAppRules*> and <*serviceSubscribedUserProfile*> resources). Further details for checking the service subscription limits of the Originator are defined in oneM2M TS-0004 [3]. On successful verification, the Receiver shall create the attributes with their associated values at the resource as requested. If the attributes provided have their value set to NULL, the Receiver shall verify if the Originator has Update privilege to delete the attributes at the target resource. On successful verification, the Receiver shall delete such attributes. The Receiver shall check if the updated target resource is a child of a parent resource having a stateTag attribute and increment the stateTag if present. The Receiver shall check if the update causes a change to a reference to an Application Entity Resource ID. If so the Hosting CSE shall send a NOTIFY request to the IN-CSE, requesting to update the entry to the <AEContactList> resource.

**Step 003:** The Receiver shall respond with mandatory parameters and may send optional parameters in Response message for UPDATE operation as specified in clause 8.1.3.

**General Exceptions:**

1. The targeted resource in ***To*** parameter does not exist. The Receiver responds with an error.
2. The Originator does not have the privilege to Update the resource including create non-existing attributes or delete existing attributes on the Receiver. The Receiver responds with an error.
3. The provided information in the ***Content*** is not accepted by the Receiver. The Receiver responds with an error.

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