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| CHANGE REQUEST |
| Meeting ID:\* | SDS 54.2 |
| Source:\* | Miguel Angel Reina Ortega, ETSI, MiguelAngel.ReinaOrtega@etsi.org  |
| Date:\* | 2022-06-02 |
| Reason for Change/s:\* | Resource identifier format conversion |
| CR against: Release\* | Rel-2 |
| CR against: WI\* | [x]  Active < WI-0077> [ ]  MNT maintenance / < Work Item number(optional)>Is this a mirror CR? Yes [x]  No [ ] mirror CR number: SDS-2022-0023R01-TS-0004\_resourceIdentifiers\_format\_conversion\_R3[ ]  STE Small Technical Enhancements / < Work Item number (optional)>Only ONE of the above shall be ticked |
| CR against: TS/TR\* | TS-0004 v2.31.0 |
| Clauses \* | 7.3.3.10 |
| Type of change: \* | [x]  Editorial change[ ]  Bug Fix or Correction[ ]  Change to existing feature or functionality[ ]  New feature or functionalityOnly ONE of the above shall be ticked |
| Other TS/TR(s) impacted | None |
| 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 [ ]  |
| Template Version: January 2019 (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 for the format conversion of resource identifiers contained in resource attributes as explained in <https://git.onem2m.org/issues/issues/-/issues/13>

## ----------------------- Start of Change 1--------------------------------------------

1.

#### Announce the resource or attribute

If CREATE Request that contains an *announceTo* attribute is received:

1. Compose the CREATE Request primitive as follows:
* The *link* attribute is set to the URI of the original resource.
* If *accessControlPolicyIDs* attribute of the original resource is not present, *accessControlPolicyIDs* attribute is set to the same value with the parent resource or from the local policy of the original resource.
* Attributes marked with MA in oneM2M TS-0001 [6]. Such attributes shall be included if present in the original resource and set to same value as in the original resource.
* Attributes marked with OA that are included in the *announcedAttribute* attribute. Such attributes shall be included if present in the original resource and set to same value as in the original resource.
* The *resourceType* attribute is set to the announced variant of the original resource (see the Table 6.3.4.2.1‑1).
* If an attribute that is to be announced has an identifier type (i.e. CSE-ID, AE-ID, resource identifier), the Hosting CSE shall convert the value of this attribute to an identifier format (see oneM2M TS-0001 [6] table 7.2-1) required by the announcement target CSE(s) where the CREATE Request will be sent to (step 1a or 1b).
1. Perform the following steps for each item (announcement target) in the *announceTo* attribute list:
2. If the announcement target is a CSE-ID, check if the CSE hosting the original resource has registered to the corresponding announcement target CSE, or is the registrar CSE for the announcement target and a <remoteCSE> resource for the Host CSE exists on the announcement target CSE:

- If yes, announce the original resource by sending a CREATE Request to the CSE specified in the *announceTo*, addressed to 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 and created a <remoteCSEAnnc> resource as a child of the <CSEBase>

If yes, announce the original resource by sending a CREATE Request to the CSE specified in the *announceTo*,addressed to the <remoteCSEAnnc> resource

If no, then the CSE hosting the original resource shall perform the following steps:

- Announce itself to the CSE specified in the *announceTo* attribute such that its <remoteCSEAnnc> resource is present at the announcement target CSE.

- Send a CREATE Request to the CSE specified in the *announceTo* of the request, addressed to the <remoteCSEAnnc> resource.

1. If the announcement target is not a CSE-ID, send a CREATE Request to the CSE represented by the URI in the *announceTo* of the request.
2. Wait for the Response primitive.
3. Add the URI of successfully-announced resource to the *announceTo* attribute of the resource.
4. Include the updated *announceTo* attribute in the ***Content*** parameter of the Response to the received CREATE Request.

If an UPDATE Request that adds a URI or CSE-ID into the *announceTo* attribute is received:

1. Compose the CREATE Request primitive as follows:
* The *link* attribute is set to the URI of the original resource.
* If the *accessControlPolicyIDs* of the original resource is not present, the *accessControlPolicyIDs* is set to the same value as the parent resource or is set using the local policy of the original resource.
* Attributes marked with MA in oneM2M TS-0001 [6]. Such attributes shall be included if present in the original resource and set to same value as in the original resource.
* Attributes marked with OA that are included in the *announcedAttribute* attribute. Such attributes shall be included if present in the original resource and set to same value as in the original resource.
* The *resourceType* attribute is set to the announced variant of the original resource (see Table 6.3.4.2.1‑1).
* If an attribute that is to be announced has an identifier type (i.e. CSE-ID, AE-ID, resource identifier), the Hosting CSE shall convert the value of this attribute to an identifier format (see oneM2M TS-0001 [6] table 7.2-1) required by the announcement target CSE(s) where the CREATE Request will be sent to (step 2a or 2b).
1. Perform the following steps for each new item (announcement target) that has been added to the *announceTo* attribute list:
2. If the announcement target is a CSE-ID, check if the CSE hosting the original resource has registered to the announcement target CSE, or is the registrar CSE for the announcement target and a <remoteCSE> resource for the Hosting CSE exists on the announcement target CSE:
* If yes, announce the original resource by sending a CREATE Request to the CSE specified in the *announceTo,* addressed to the <remoteCSE> of the CSE hosting the original resource.
* If no, check if the CSE hosting the original resource has been announced to the announcement target CSE and created a <remoteCSEAnnc> resource as a child of the <CSEBase>:

- If yes, announce the original resource by sending a CREATE Request to the CSE specified in the *announceTo*, addressed to the <remoteCSEAnnc> resource.

- If no, then check if the CSE hosting the original resource has been announced to the announcement target CSE and created a <remoteCSEAnnc> resource as a child of the <CSEBase>:

If yes, announce the original resource by sending a CREATE Request to the CSE specified in the *announceTo*, addressed to the <remoteCSEAnnc> resource.

If no, then the CSE hosting the original resource shall perform the following steps:

- Announce itself to the CSE specified in the *announceTo* attribute such that its <remoteCSEAnnc> resource is present at the announcement target CSE.

- Send a CREATE Request to the CSE specified in the *announceTo* of the request, addressed to the <remoteCSEAnnc> resource.

1. If the announcement target is not a CSE-ID, send a CREATE Request to the CSE represented by the URI in the *announceTo* of the request.
2. Wait for the Response to the CREATE that was sent in step a or b.
3. Add the URI of the successfully-announced resource to the *announceTo* attribute of the resource.
4. Include the updated *announceTo* attribute in the ***Content*** parameter in the Response to the received UPDATE Request.

If an UPDATE Request that adds the attribute name into the *announcedAttribute* attribute is received:

1. Compose the UPDATE Request. The UPDATE Request shall provide the attribute name for the attribute to be announced, and the initial value for the attribute in the ***Content*** parameter. The initial value shall be the same with the value from the original resource. If this attribute has an identifier type (i.e. CSE-ID, AE-ID, resource identifier), the Hosting CSE shall convert the value of this attribute to an identifier format (see oneM2M TS-0001 [6] table 7.2-1) required by the announcement target(s) where the UPDATE Request will be sent to (step 2). The attribute that will be announced shall be marked as OA.
2. Send UPDATE Requests to all announced resources listed in the *announceTo* attribute.
3. Wait for Response primitive.
4. Add the attribute name of the successfully announced attribute to the *announcedAttribute* attribute.
5. Include updated *announcedAttribute* attribute in the ***Content*** parameter in the Response to the received UPDATE Request.

If an attribute(s) specified as MA (see oneM2M TS-0001 [6]) or an attribute(s) included in the *announcedAttribute* attribute is updated:

1. Compose an UPDATE Request primitive by including the updated attribute(s) with its associated updated value. If an attribute has an identifier type (i.e. CSE-ID, AE-ID, resource identifier), the Hosting CSE shall convert the value of this attribute to an identifier format (see oneM2M TS-0001 [6] table 7.2-1) required by the announcement target(s) where the UPDATE Request will be sent to (step 2).
2. Send the UPDATE Request to all CSE(s) represented by the URI(s) in the *announceTo* attribute of the original resource.
3. Wait for the Response primitive(s).

-------------------------------------------------- End of Change 1---------------------------------------