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| CHANGE REQUEST |
| Meeting ID:\* | ARC 38 |
| Source:\* | Bob Flynn, Convida Wireless, Flynn.Bob@ConvidaWireless.com  |
| Date:\* | 2018-11-13 |
| Reason for Change/s:\* | See the introduction  |
| CR against: Release\* | Release 3 |
| CR against: WI\* | [ ]  Active - WI- [x]  MNT maintenance / < Work Item number(optional)>Is this a mirror CR? Yes [ ]  No [x] 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 Version 3.13.0 |
| Clauses \* | 9.6.35 |
| 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/TR number>, <Version Number>, and <Description on which aspect should be reflected in this TS/TR> |
| 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

R01 – after discussion it was decided to keep the stateTag attribute but modify the definition to align with the concept that the stateTag should be incremented when content sharing data is modified. In the case of flexContainer, this is custom attributes.

Initial contribution

During development of <flexcontainer> test purposes, I noted that the stateTag attribute was present for this resource.

*stateTag* attribute of <flexContainer>

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *stateTag* | 1 | RO | See clause 9.6.1.3.This *stateTag* attribute value shall be incremented when a <*container*> or [*flexContainer*] child resource is created or deleted. This works same as the *stateTag* attribute update on a <container> resource at a <contentInstance> resource creation or deletion. | OA |

*stateTag* attribute of <contentInstance>

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *stateTag* | 1 | RO | See clause 9.6.1.3.The *stateTag* attribute of the parent resource should be incremented first and copied into this *stateTag* attribute when a new instance is added to the parent resource. | OA |

You will note that if we try to apply the same functional logic that applies to a <contentInstance>, then the <flexContainer> needs 2 *stateTag* attributes, 1 for children and 1 for parents.

I propose that this is not appropriate for a flexContainer and propose removing the attribute.

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

### 9.6.35 Resource Type *flexContainer*

The *<flexContainer>* resource type is a customizable container for data instances. It is a template for the definition of flexible specializations of data containers. Like a <*container*> resource, specializations of this *<flexContainer>* resource type are used to share information with other entities and potentially to track the data. While the <*container*> resources includes data to be made accessible to oneM2M entities inside <*contentInstance*> children, a specialization of the *<flexContainer>* resource includes associated content directly inside the <*flexContainer*> by means of one or more [*customAttribute*] attribute(s). The attribute name and attribute data type of [*customAttribute*] attributes are defined explicitly for each specialization of <*flexContainer>*, i.e. the specific set of attribute name and type are defined in a corresponding XSD-file.

Example usage of *<flexContainer>*: As a specialization of <*flexContainer*> that includes two [customAttribute] attributes, named "temperature"(xs:float type) and "humidity"(xs:positiveInteger type) can be specified in some TS. The actual data types of [customAttribute] will be described both in the specification document or XSD file which are referred by the value of *containerDefinition* attribute.

The *<flexContainer>* resource shall contain the child resource specified in table 9.6.35-1.

Table 9.6.35-1: Child resources of <*flexContainer*> resource

| **Child Resources of <*flexContainer*>** | **Child Resource Type** | **Multiplicity** | **Description** | ***<****flexContainer****Annc>* Child Resource Type** |
| --- | --- | --- | --- | --- |
| *[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 | <flexContainer> resource can include any of its specializations as child resource | *<flexContainer>**<flexContainerAnnc>* |
| *[variable]* | *<timeSeries>* | 0..n | See clause 9.6.36 | *<timeSeries>,**<timeSeriesAnnc>* |
| *[variable]* | *<transaction>* | 0..n | See clause 9.6.48 | *<transaction>* |

The *<flexContainer>* resource shall contain the attributes specified in table 9.6.35-2.

Table 9.6.35-2: Attributes of <*flexContainer*> resource

| **Attributes of *<flexContainer>*** | **Multiplicity** | **RW/****RO/****WO** | **Description** | ***<flexContainerAnnc>* 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 |
| *expirationTime* | 0..1 (note) | 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 |
| *creationTime* | 0..1(note) | RO | See clause 9.6.1.3. | NA |
| *lastModifiedTime* | 0..1(note) | RO | See clause 9.6.1.3. | NA |
| *stateTag* | 1 | RO | See clause 9.6.1.3.This *stateTag* attribute value shall be incremented when a custom attribute of the flexContainer is modified. | OA |
| *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 |
| *creator* | 0..1 | RO |  See clause 9.6.1.3. | NA |
| *containerDefinition* | 1 | WO | This contains an identifier reference (URI) to the <*flexContainer*> schema definition which shall be used by the CSE to validate the syntax of the <*flexContainer*> resource.This URI may refer to one of the oneM2M <*flexContainer*> definitions specified in the following documents:* Generic Interworking [6]]
* AllJoyn Interworking [7];
* Home Domain Information Model [8]

A list of oneM2M <*flexContainer*> definitions is also provided in clause 9.6.1.2.2 [3].Other URI for other *<flexContainer>* definitions may be specified. | MA |
| *ontologyRef* | 0..1 | RW | A reference (URI) of the ontology used to represent the information that is stored in the present *<flexContainer>* resource. | OA |
| *contentSize* | 1 | RO | Sum of the size in bytes of all of the custom attributes. | OA |
| *nodeLink* | 0..1 | RW | The resource identifier of a <node> resource that stores the node specific information of the NoDN on which the interworked service represented by this <flexContainer> resource resides. | OA |
| *[customAttribute]* | 0..n | RW | Specialization-specific attribute(s). Name and data type defined in each specialization of <*flexContainer>* resource. | OA |
| NOTE: When an instance of <*flexContainer*> is a child of a <*flexContainer*> resource, these attributes can be optional. Their presence is determined by the respective definition referred to by the *containerDefinition* attribute. |

### -----------------------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.?