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| CHANGE REQUEST |
| Meeting ID:\* | ARC 32 |
| Source:\* | Dale Seed, Convida Wireless, Seed.Dale@ConvidaWireless.comCatalina Mladin, Convida Wireless, Mladin.Catalina@ConvidaWireless.com |
| Date:\* | 2017-10-30 |
| Reason for Change/s:\* | Add M2M-Ext-ID attribute to <node> resource  |
| CR against: Release\* | Release 3 |
| CR against: WI\* | [x]  Active - WI-0058 - 3GPP & Cellular IoT Interworking [ ]  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 3.8.0 |
| Clauses \* | Section 9.6.18 |
| 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) | <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

This contribution proposes to add the M2M-Ext-ID attribute to <node> resource. This attribute is used to identify the device in the underlying network which hosts the AE or MN-CSE. Since the <node> resource represents a Field Node or a device which can host multiple AEs or a CSE, it is useful to have the M2M-Ext-ID attribute under the <node> resource.

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

### 9.6.18 Resource Type *node*

The *<node>* resource represents specific information that provides properties of an M2M Node that can be utilized by other oneM2M operations. The *<node>* resource has specialization of the *<mgmtObj>* as its child resources. These resources represent the Node's context information (e.g. memory and battery), network topology, device information, device capability etc. The specialized *<mgmtObj>* resources are used to perform management of the Node.

This node specific information stored in these resources such as *[memory]* and *[battery]* can be obtained either by the existing device management technologies (OMA DM [i.3], BBF TR-069 [i.2]) or any other way (e.g. JNI [i.18]).

For the case when the *<node>* resource belongs to an ADN, please see figure 9.6.18-1 in conjunction with the description of *nodeLink* attribute in the *<AE>* resource (clause 9.6.5).



Figure 9.6.18-1: Relationship between IN/MN and ADN



Figure 9.6.18-2: Structure of *<node>* resource

The *<node>* resource shall contain the child resources specified in table 9.6.18-1.

Table 9.6.18-1: Child resources of *<node>* resource

| Child Resources of *<node>* | Child Resource Type | Multiplicity | Description | *<nodeAnnc>* Child Resource Type |
| --- | --- | --- | --- | --- |
| *[variable]* | *<semanticDescriptor>* | 0..n | See clause 9.6.30 | *<semanticDescriptor>, <semanticDescriptorAnnc>* |
| *[variable]* | *<mgmtObj>* as defined in the specialization [*memory]* | 0..1 | This resource provides the memory (typically RAM) information of the node. (E.g. the amount of total volatile memory), See clause D.4. | *<mgmtObjAnnc>* |
| *[variable]* | *<mgmtObj>* as defined in the specialization [*battery]* | 0..n | The resource provides the power information of the node. (E.g. remaining battery charge). See clause D.7. | *<mgmtObjAnnc>* |
| *[variable]* | *<mgmtObj>* as defined in the specialization [*areaNwkInfo]* | 0..n | This resource describes the list of Nodes attached behind the MN node and its physical or underlying relation among the nodes in the M2M Area Network. This attribute is defined in case the Node is MN. See clause D.5. | *<mgmtObjAnnc>* |
| *[variable]* | *<mgmtObj>* as defined in the specialization [*areaNwkDeviceInfo]* | 0..n | This resource describes the information about the Node in the M2M Area Network. See clause D.6. | *<mgmtObjAnnc>* |
| *[variable]* | *<mgmtObj>* as defined in the specialization [*firmware]* | *0..n* | This resource describes the information about the firmware of the Node include name, version etc. See clause D.2. | *<mgmtObjAnnc>* |
| *[variable]* | *<mgmtObj>* as defined in the specialization [*software]* | 0..n | This resource describes the information about the software of the Node. See clause D.3. | *<mgmtObjAnnc>* |
| *[variable]* | *<mgmtObj>* as defined in the specialization [*deviceInfo]* | 0..n | The resource contains information about the identity, manufacturer and model number of the device. See clause D.8. | *<mgmtObjAnnc>* |
| *[variable]* | *<mgmtObj>* as defined in the specialization [*deviceCapability]* | 0..n | The resource contains information about the capability supported by the Node. See clause D.9. | *<mgmtObjAnnc>* |
| *[variable]* | *<mgmtObj>* as defined in the specialization [*reboot]* | 0..1 | The resource is the place to reboot or reset the Node. See clause D.10. | *<mgmtObjAnnc>* |
| *[variable]* | *<mgmtObj>* as defined in the specialization [*eventLog]* | 0..1 | The resource contains the information about the log of events of the Node. See clause D.11. | *<mgmtObjAnnc>* |
| *[variable]* | *<mgmtObj>* as defined in the specialization *[cmdhPolicy]* | 0..n | The resource(s) contain(s) information about CMDH policies that are applicable to the CMDH processing on the CSE hosted on the node represented by this *<node>* resource and identified by the *hostedCSELink* attribute of this *<node>* resource. See clause D.12. | NA |
| *[variable]* | *<mgmtObj>* as defined in the specialization *[activeCmdhPolicy]* | 0..1 | This resource defines which of the present *[cmdhPolicy]* resource(s) shall be active for the CMDH processing on the CSE hosted on the node represented by this *<node>* resource and identified by the *hostedCSELink* attribute of this *<node>* resource. See clause D.12. | NA |
| *[variable]* | *<subscription>* | 0..n | See clause 9.6.8. |  *<subscription>* |
| *[variable]* | *<schedule>* | 0..n | See clause 9.6.9. |  *<scheduleAnnc>* |
| *[variable]* | *<transaction>* | 0..n | See clause 9.6.48 | *<transaction>* |

The *<node>* resource shall contain the attributes specified in table 9.6.18-2.

Table 9.6.18-2: Attributes of *<node>* resource

| Attributes of *<node>* | Multiplicity | RW/RO/WO | Description | *<nodeAnnc>* 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* | 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 |
| *nodeID* | 1 | RW | The M2M-Node-ID of the node which is represented by this *<node>* resource. | MA |
| *hostedCSELink* | 0..1 | RW | This attribute allows to find the <CSEBase> or <remoteCSE> resource representing the CSE that is residing on the node that is represented by this <*node*> resource. The attribute contains the resource ID of a resource where all of the following applies:* The resource is a *<CSEBase>* resource or a *<remoteCSE>* resource.
* The resource represents the CSE which resides on the specific node that is represented by the current *<node>* resource.

In case the node that is represented by this <node> resource does not contain a CSE, this attribute must not be present. | OA |
| *hostedAELinks* | 0..1(L) | RW | This attribute allows to find the AEs hosted by this <*node*> resource. The attribute contains a list of resource identifiers of *<AE>* resources representing the ADN-AEs residing on the specific node that is represented by the current *<node>* resource.In case the node that is represented by this <node> resource does not contain an AE, this attribute must not be present. | OA |
| *mgmtClientAddress* | 0..1 | RW | Represents the physical address of management client of the node which is represented by this <node> resource.This attribute is absent if management server is able to acquire the physical address of the management client. | OA |
| *roamingStatus* | 0..1 | RO | Indicates if the M2M Node is currently roaming from the perspective of the underlying network. The allowed values are “Yes” or “No”.  | OA |
| *networkID* | 0..1 | RO | Configured with the identity of the underlying network which the M2M Node is currently attached to.  | OA |
| *M2M-Ext-ID* | 0..1 | RW | The M2M External Identifier of the node (e.g. ADN, ASN, MN). | OA |

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