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| CHANGE REQUEST |
| Meeting:\* | ARC#28.1 |
| Source:\* | C-DOT  |
| Date:\* | 2017-03-28 |
| Contact:\* | Moode Giribabu Naik (moode@cdot.in) , Poornima (poornima@cdot.in) |
| Reason for Change/s:\* | See the introduction  |
| CR against: Release\* | Release 3 |
| CR against: WI\* | [ ]  Active <Work Item number> [x]  MNT maintenace / < Work Item number(optional)>[ ]  STE Small Technical Enhancements / < Work Item number (optional)>Only ONE of the above shall be ticked |
| CR against: TS/TR\* | TS-0001 v2\_12\_2 |
| Clauses/Sub Clauses\* | D.9 |
| 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 |
| 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] This CR is a mirror CR? YES [x]  if YES, please indicate the document number of the original CR: [ARC-2017-0161](http://member.onem2m.org/Application/documentApp/documentinfo/?documentId=21722&fromList=Y) : NO [ ]   |
| 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

This CR proposes changes in RW/WO/RO column of the attributes of specialized resource [deviceCapability].

Attributes *attached*, *capabilityActionStatus*, *currentState*, *enable*, *disable* in [deviceCapability] are modifiable and their value can be changed as given in TS-0006.

Table 7.8-1: Resource [capabilityInstance]

| Attribute Name of [capabilityInstance] | TR-181 Parameter |
| --- | --- |
| capabilityName | This attribute is fixed based on the value of the capabilityName attribute. |
| Attached | Returns “True” |
| capabilityActionStatus | * Status is defined as:
* Success if the SetParameterValues RPC indicates that the operation was successful.
* Failure if the response to the SetParameterValues RPCs indicates that the operation failed.
* In process if the SetParameterValues RPC is initiated but the response to the SetParameterValues RPC has not been received.
 |
| currentState | USB: Device.USB.Interface.{i}.EnableWi-Fi: Device.Wi-Fi.Radio.{i}.EnableHomePlug: Device.HomePlug.Interface.{i}.EnableMoCA: Device.MoCA.Interface.{i}.EnableUPA: Device.UPA.Interface.{i}.EnableSmartCardReader: Device.SmartCardReaders.SmartCardReader.{i}.Enable |
| enable | USB: Device.USB.Interface.{i}.EnableWi-Fi: Device.Wi-Fi.Radio.{i}.EnableHomePlug: Device.HomePlug.Interface.{i}.EnableMoCA: Device.MoCA.Interface.{i}.EnableUPA: Device.UPA.Interface.{i}.EnableSmartCardReader: Device.SmartCardReaders.SmartCardReader.{i}.Enable |
| disable | Same parameter is used to disable a capability as the enable attribute. |

It is mentioned in TS-0004, for [deviceCapability] resource, attribute *currentState* tells us whether the device capability is enabled (by setting currentState to true) or disabled (by setting *currentState* to false). And also in Request Optionality for UPDATE, the following attributes *attached*, *capabilityActionStatus*, *currentState*, *enable*, *disable* are given as “O” as highlighted below.

Table D.9.1‑2: Resource specific attributes of [deviceCapability]

|  |  |  |  |
| --- | --- | --- | --- |
| Attribute Name | Request Optionality  | Data Type | Default Value and Constraints |
| Create | Update |
| mgmtDefinition | M | NP | See clause 7.4.15 | 1008 (deviceCapability) |
| objectIDs | O | NP | See clause 7.4.15 |  |
| objectPaths | O | NP | See clause 7.4.15 |  |
| Description | O | O | See clause 7.4.15 |  |
| capabilityName | M | O | xs:string |  |
| Attached | M | O | xs:Boolean | 1. true: currently attached to the device2. false: currently detached to the device |
| capabilityActionStatus | M | O | m2m:actionStatus | The action (i.e. enable, disable) and the related status. See the Table 6.3.2.3 1 |
| currentState | M | O | xs:Boolean | * true: the device capability is enabled
* false: the device capability is disabled
 |
| Enable | O | O | xs:Boolean | the value of this attribute is always "true" |
| Disable | O | O | xs:Boolean | the value of this attribute is always "true" |

So, Originator should be able to update such attributes through update request. The CR proposes to change their type to “RW”.

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

# D.9 Resource deviceCapability

The *[deviceCapability]* resource represents each device's capability. The *[deviceCapability]* resource is a specialization of the *<mgmtObj>* resource.



Figure D.9-1: Structure of *[deviceCapability]* resource

The *[deviceCapability]* resource shall contain the child resources specified in table D.9-1.

Table D.9-1: Child resources of *[deviceCapability]* resource

| Child Resources of *[deviceCapability]* | Child Resource Type | Multiplicity | Description |
| --- | --- | --- | --- |
| *[variable]* | *<subscription>* | 0..n | See clause 9.6.8 where the type of this resource is described. |
| *[variable]* | *<semanticDescriptor>* | 0..n | See clause 9.6.30 |

The *[deviceCapability]* resource shall contain the attributes specified in table D.9-2.

Table D.9-2: Attributes of *[deviceCapability]* resource

| Attributes of *[deviceCapability]* | Multiplicity | RW/RO/WO | Description |
| --- | --- | --- | --- |
| *resourceType* | 1 | RO | See clause 9.6.1.3. |
| *resourceID* | 1 | RO | See clause 9.6.1.3. |
| *resourceName* | 1 | WO | See clause 9.6.1.3. |
| *parentID* | 1 | RO | See clause 9.6.1.3. |
| *expirationTime* | 1 | RW | See clause 9.6.1.3. |
| *accessControlPolicyIDs* | 0..1 (L) | RW | See clause 9.6.1.3. |
| *creationTime* | 1 | RO | See clause 9.6.1.3. |
| *lastModifiedTime* | 1 | RO | See clause 9.6.1.3. |
| *labels* | 0..1(L) | RW | See clause 9.6.1.3. |
| *mgmtDefinition* | 1 | WO | See clause 9.6.15. This attribute shall have the fixed value *"deviceCapability"*. |
| *objectIDs* | 0..1 (L) | RW | See clause 9.6.15. |
| *objectPaths* | 0..1 (L) | RW | See clause 9.6.15. |
| *description* | 0..1 | RW | See clause 9.6.15. |
| *capabilityName* | 1 | WO | The name of the capability. This attribute is a specialization of *[objectAttribute]* attribute. |
| *attached* | 1 | RW | Indicates whether the capability is attached to the device or not. This attribute is a specialization of *[objectAttribute]* attribute. |
| *capabilityActionStatus* | 1 | RW | Indicates the status of the Action (including a performed action and the corresponding final state). This attribute is a specialization of *[objectAttribute]* attribute. |
| *currentState* | 1 | RW | Indicates the current state of the capability (e.g. enabled or disabled). This attribute is a specialization of *[objectAttribute]* attribute. |
| *enable* | 0..1 | RW | The action that allows enabling the device capability. This attribute is a specialization of *[objectAttribute]* attribute. |
| *disable* | 0..1 | RW | The action that allows disabling the device capability. This attribute is a specialization of *[objectAttribute]* 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 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.?