



## ONEM2M TECHNICAL SPECIFICATION

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Document Name:	Test Suite Structure and Test Purposes
Date:	2017-April-19
Abstract:	<p>The Test Suite Structure and Test Purposes document for conformance testing consists of:</p> <ul style="list-style-type: none"><li>- Defining the test suite structure by grouping the test purposes according to different criteria;</li><li>- Specifying test purposes for conformance test. A test purpose is an informal description of the expected test behaviour.</li></ul>
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## About oneM2M

The purpose and goal of oneM2M is to develop technical specifications which address the need for a common M2M Service Layer that can be readily embedded within various hardware and software, and relied upon to connect the myriad of devices in the field with M2M application servers worldwide.

More information about oneM2M may be found at: <http://www.oneM2M.org>

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# 1 Scope

The present document specifies oneM2M test suite structure and test purposes that are designed to evaluate the conformity of oneM2M implementations to the oneM2M specifications. It also specifies

- Guidelines for description of test behaviours and definition of test purpose structure,
- Notations to define a test purpose for conformance testing, and
- Test configurations for conformance testing.

---

## 2 References

### 2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or nonspecific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

The following referenced documents are necessary for the application of the present document.

- [1] oneM2M TS-0001: "Functional Architecture".
- [2] oneM2M TS-0004: "Service Layer Core Protocol Specification".
- [3] oneM2M TS-0015: "Testing Framework".
- [4] oneM2M TS-0017: "Implementation Conformance Statements".
- [5] oneM2M TS-0031: "oneM2M Features".

### 2.2 Informative references

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] oneM2M Drafting Rules ([http://member.onem2m.org/Static\\_pages/Others/Rules\\_Pages/oneM2M-Drafting-Rules-V1\\_0.doc](http://member.onem2m.org/Static_pages/Others/Rules_Pages/oneM2M-Drafting-Rules-V1_0.doc))

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## 3 Definitions, symbols and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS-0015 Testing Framework and the following ones apply:

**valid <OPERATION> Request:** a oneM2M Request primitive that only contains all mandatory primitive parameters with correct values which are not required to be explicitly specified in the test purpose. If specific values need to be specified, parameters need to be explicitly indicated in the test purpose. Operation parameter is set to <OPERATION>.

**valid Response:** a oneM2M Response primitive that only contains all mandatory primitive parameters with correct values which are not required to be explicitly specified in the test purpose. If specific values need to be specified, parameters need to be explicitly indicated in the test purpose. Request Identifier parameter contains the Request Identifier value of the corresponding Request.

**valid <ATTRIBUTE\_NAME>:** a correct value for the <ATTRIBUTE\_NAME> attribute which is not required to be explicitly specified in the test purpose.

**Editor's Note:** This may contain additional information.

### 3.2 Abbreviations

For the purposes of the present document, abbreviations given in TS-0001[1] apply:

ADN	Application Dedicated Node
ADN-AE	AE which resides in the Application Dedicated Node
AE	Application Entity
ASN	Application Service Node
CSE	Common Service Entity
CSF	Common Service Function
IN	Infrastructure Node
IN-CSE	CSE which resides in the Infrastructure Node
IUT	Implementation Under Test
MN	Middle Node
SUT	System Under Test

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## 4 Conventions

The key words “Shall”, ”Shall not”, “May”, ”Need not”, “Should”, ”Should not” in this document are to be interpreted as described in the oneM2M Drafting Rules [i.1]

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## 5 Prerequisites and Test Configurations

### 5.1 Test Configurations

Test configurations are defined to test different entities such as CSE and AE etc.

Figure 1 and Figure 2 show CSE test configurations where CSE as a IUT can be tested against with TTCN-3 Test System, i.e. either AE (including ADN-AE) or CSE which is mapped to configuration CF01 and CF02, respectively.

Figure 3 shows AE test configuration (CF03) for ADN-AE testing scenario where ADN-AE is IUT and TTCN-3 Test System is acted by a CSE.

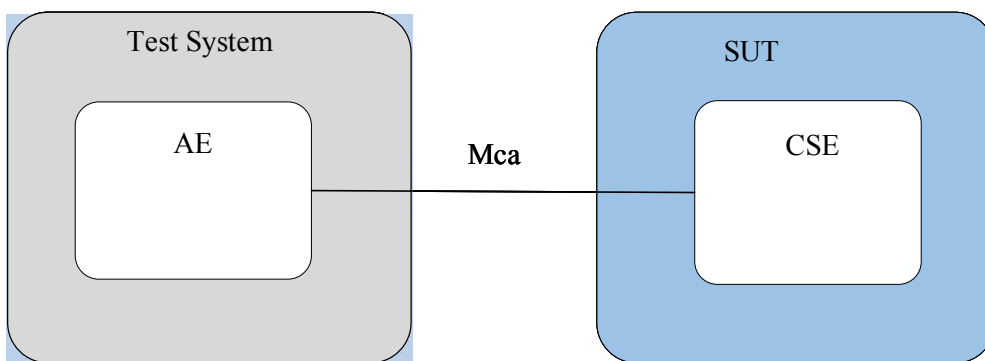


Figure 1. Test configuration 1 (CF01)

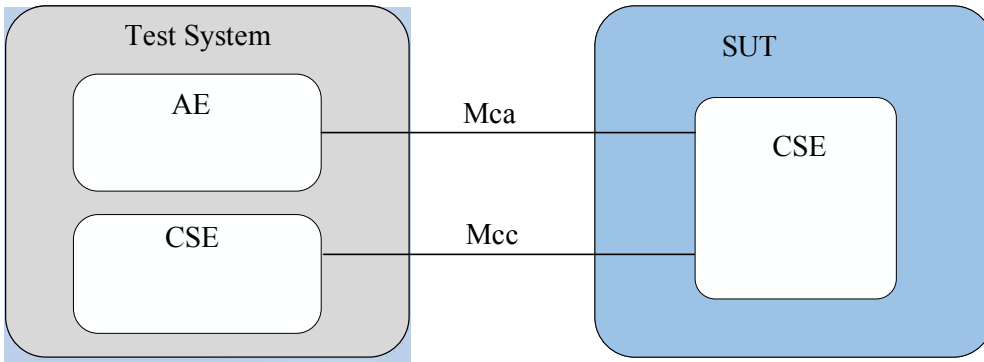


Figure 2. Test configuration 2 (CF02)

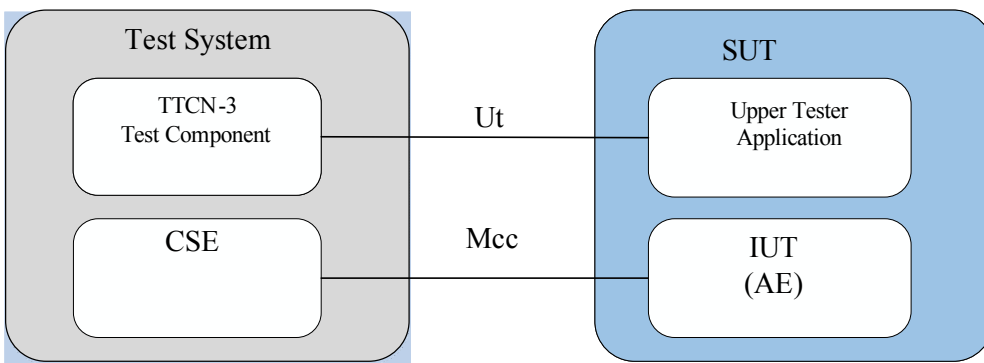


Figure 3. Test configuration 3 (CF03)

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## 6 Test Suite Structure (TSS)

### 6.1 Structure for oneM2M tests

### 6.2 Test groups

The test groups are organized in 2 levels. The first level defines the functional entity of oneM2M. The second level defines the common services functions which are represented in oneM2M functional architecture.

#### 6.2.1 Functional Entity Groups

The functional entity groups identify the types of entity which are specified in oneM2M functional architecture(TS-0001).

- AE
- CSE

#### 6.2.2 Common Services Functions Subgroups

The common services functions subgroups identify the general procedures in each common services functions specified in oneM2M functional architecture(TS-0001).

- Registration
- Data Management and Repository
- Subscription and Notification
- Group Management
- Discovery
- Location
- Device Management
- Communication Management and Delivery Handling
- Security

#### 6.2.3 oneM2M Resource Primitives specific Operations

A group of resource type specific procedures are defined in oneM2M functional architecture (TS-0001) and service layer core protocol (TS-0004). Those procedures can be potentially abstracted with requirements for generating test purposes for conformance testing purpose. Those resource type specific procedures are the complementary procedures to the general procedures defined in oneM2M Common Service Functions (CSF) and will use for subgroups of structures for oneM2M tests. A list of those procedures are including:

- Resource announcement
- **Editor's Note: more procedures will be added for future tests extension**

### 6.3 Test Suite Structure (TSS) for oneM2M

The Test Suite Structure (TSS) for oneM2M will be present as bellow:

- Group 1: General Capability (GEN)
  - Subgroup 1.1: Protocol Bindings
  - Subgroup 1.2: Serializations
- Group 2: AE(AE)
  - Subgroup 2.1: General Capability (GEN)
  - Subgroup 2.2: Registration(REG)
  - Subgroup 2.3: Data Management and Repository(DMR)
  - Subgroup 2.4: Subscription and Notification(SUB)
  - Subgroup 2.5: Group Management(GMG)

- Subgroup 2.6: Discovery(DIS)
- Subgroup 2.7: Location(LOC)
- Subgroup 2.8: Device Management(DMG)
- Subgroup 2.9: Communication Management and Delivery Handling(CMDH)
- Subgroup 2.10: Security(SEC)
- Group 3: CSE(CSE)
  - Subgroup 3.1: General Capability (GEN)
  - Subgroup 3.2: Registration(REG)
  - Subgroup 3.3: Data Management and Repository(DMR)
  - Subgroup 3.4: Subscription and Notification(SUB)
  - Subgroup 3.5: Group Management(GMG)
  - Subgroup 3.6: Discovery(DIS)
  - Subgroup 3.7: Location(LOC)
  - Subgroup 3.8: Device Management(DMG)
  - Subgroup 3.9: Communication Management and Delivery Handling(CMDH)
  - Subgroup 3.10: Security(SEC)
  - Subgroup 3.11: Resource Announcement (ANNC)

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## 7 Test Purposes (TP)

### 7.1 Introduction

#### 7.1.1 TP definition conventions

The TP definition is constructed according to Test Suite Structure & Test Purposes(TSS&TP) in Testing Framework(TS-0015).

#### 7.1.2 TP Identifier naming conventions

The identifier of the TP is constructed according to table 7.1.2.-1.

**Table 7.1.2.-1: TP naming convention for oneM2M**

TP/<root>/<gr>/<sgr>/<xx>/<nnn>		
<root> = root	oneM2M	oneM2M
<gr> = group	AE	Application Entity
	CSE	Common Services Entity
<sgr> = sub- group	REG	Registration
	DMR	Data Management and Repository
	SUB	Subscription and Notification
	GMG	Group Management
	DIS	Discovery
	LOC	Location
	DMG	Device Management
	CMDH	Communication Management and Delivery Handling
	SEC	Security
	ANNC	Resource Announcement
<xx> = type of testing	BV	Valid Behaviour tests
	BI	Invalid Behaviour tests
<nnn> = sequential number		001 to 999

### 7.1.3 Rules for the behaviour description

The description of the TP is built according to TS-0015 Testing Framework.

In addition, the following rules apply:

- Primitive parameters shall use their *Parameter name* as indicated in TS-0004 [ ] table 8.2.2-1
- Resource attributes shall use their *Attribute name* as indicated in TS-0004 [ ] tables 8.2.3 followed by “attribute”.
- When *Content* request parameter contains a resource representation, such representation shall contain all mandatory attributes and could contain some optional attributes. Only those attributes and/or child resources required by the test purpose will be explicitly indicated.
- When *Content* response parameter contains a resource representation, such representation shall contain attributes and/or child resources according to the Result Content parameter of the corresponding request. Only those attributes and/or child resources required by the test purpose will be explicitly indicated.

## 7.1.4 Source of TP definitions

## 7.1.5 ICS reference

Editor note: the table 7.1.5.-1 and 7.1.5.-2 are for examples and are here for being referenced in the Table 7.1.5.-3: mnemonics for PICS reference. Table 7.1.5.-1 and 7.1.5.-2 should be included in the ICS TS-0017.

**Table 7.1.5.-1: Node**

Item	Name of field	Reference	Status	Support
1	ASN (Application Service Node)	6.1	o.1	
2	ADN (Application Dedicated Node)	6.1	o.1	
3	IN (Infrastructure Node)	6.1	o.1	
4	MN (Middle Node)	6.1	o.1	

o.1: Exactly one item shall be supported

**Table 7.1.5.-2: Functional entity type**

Prerequisite: A.1				
Item	Name of field	Reference	Status	Support
1	AE	5.2.1	c.1	
2	CSE	5.2.1	c.2	

c.1: If A.1-1 or A.1-2 then m else o  
c.2: If A.1-2 x else m

**Table 7.1.5.-3: Mnemonics for PICS reference**

Mnemonic	PICS item
PICS_AE	A.2/1 [PICS document]
PICS_CSE	A.2/2 [PICS document]
PICS_ASN	A.1/1 [PICS document]
PICS_ADN	A.1/2 [PICS document]
PICS_IN	A.1/3 [PICS document]
PICS_MN	A.1/4 [PICS document]

## 7.2 Test Purposes for oneM2M Service Primitives

Editor's Note: Any yellow highlighted Test Purpose Identifier (TP-ID) is to indicate test purpose pointed by the TP-ID is linked to certain feature(s). Such yellow highlight mark is only a temporary solution to track test purposes that are not referenced by any feature. We will remove all those yellow highlight before publish the current document.

### 1. General Capability(GEN)

#### 1. GE/GEN/00001/00001

Support HTTP binding

#### 2. GE/GEN/00001/00002

Support CoAP binding



### 3. GE/GEN/00001/00003

Support MQTT binding

### 4. GE/GEN/00001/00004

Support WebSocket binding

### 5. GE/GEN/00002/00001

Support XML serialization

### 6. GE/GEN/00002/00002

Support JSON serialization

### 7. GE/GEN/00002/00003

Support CBOR serialization

## 2. Group AE (AE)

### 1. General Capability (GEN)

#### 1. AE/GEN/00001/00001

Support CSE-relative Unstructured resource identifier

#### 2. AE/GEN/00001/00002

Support SP-relative Unstructured resource identifier

#### 3. AE/GEN/00001/00003

Support Absolute Unstructured resource identifier

#### 4. AE/GEN/00001/00004

Support CSE-relative Structured resource identifier

#### 5. AE/GEN/00001/00005

Support SP-relative Structured resource identifier

#### 6. AE/GEN/00001/00006

Support Absolute Structured resource identifier

#### 7. AE/GEN/00002/00001

Support Create request targeting one resource

#### 8. AE/GEN/00002/00002

Support Retrieve request targeting one resource

#### 9. AE/GEN/00002/00003

Support Update request targeting one resource

#### 10. AE/GEN/00002/00004

Support Delete request targeting one resource

#### 11. AE/GEN/00002/00005

Support retrieve request targeting attribute(s)

12.AE/GEN/00002/00006

Support of requesting attributes by setting *Result Content*

13.AE/GEN/00002/00007

Support of requesting hierarchical address by setting *Result Content*

14.AE/GEN/00002/00008

Support of requesting hierarchical address and attributes by setting *Result Content*

15.AE/GEN/00002/00009

Support of requesting attributes and child resources by setting *Result Content*

16.AE/GEN/00002/00010

Support of requesting child resources by setting *Result Content*

17.AE/GEN/00002/00011

Support of requesting attributes and child resource references by setting *Result Content*

18.AE/GEN/00002/00012

Support of requesting child resource references by setting *Result Content*

19.AE/GEN/00002/00013

Support of requesting nothing by setting *Result Content*

## 2.Registration (REG)

### 1. AE/REG/00001/00001

The Retrieval of <CSEBase> resource

TP/oneM2M/AE/DMR/RET/BV/001

<b>TP Id</b>	TP/oneM2M/AE/DMR/RET/BV/001	
<b>Test objective</b>	Check that the IUT sends a RETRIEVE Request on the TARGET_RESOURCE_ADDRESS to CSE	
<b>Reference</b>	TS-0001 10.1.2, TS-0004 7.2.2.1	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE.	
<b>Initial conditions</b>	with { the IUT <b>being</b> registered <b>and</b> the IUT <b>being</b> switched on <b>and</b> the CSE <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type <b>RESOURCE_TYPE</b> <b>and</b> the IUT <b>having</b> privileges to perform RETRIEVE operation on resource TARGET_RESOURCE_ADDRESS }	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	when { the IUT <b>is triggered to send</b> a RETRIEVE Request on the TARGET_RESOURCE_ADDRESS }	NA

<pre> then {   the IUT <b>sends</b> a valid RETRIEVE Request <b>containing</b>   To <b>set to</b> TARGET_RESOURCE_ADDRESS and   From <b>set to</b> AE_ID } </pre>	IUT → CSE
---	-----------

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/AE/DMR/RET/BV/001_01	TS-0001 10.2.3.2	5 (CSEBase)
TP/oneM2M/AE/DMR/RET/BV/001_02	TS-0001 10.2.1.2	2 (AE)

TP/oneM2M/AE/DMR/RET/BV/001\_01

## 2. AE/REG/00002/00001

Create <AE> with mandatory attributes[2]

TP/oneM2M/AE/REG/BV/001

<b>TP Id</b>	TP/oneM2M/AE/REG/BV/001	
<b>Test objective</b>	Check that the IUT sends an AE initial registration request with no AE-ID-STEM provided when it is started	
<b>Reference</b>	TS-0001 10.1.1.2.2 - case C, 9.6.19	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE	
<b>Initial conditions</b>	<pre> with {   the IUT <b>never being</b> registered <b>and</b>   the IUT <b>being</b> switched off <b>and</b>   the IUT <b>having got</b> a valid APP-ID } </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when {   the IUT is <b>triggered to send</b> a CREATE Request on the   AE_RESOURCE_ADDRESS }  then {   the IUT <b>sends</b> a valid CREATE Request to CSE <b>containing</b>   Resource Type <b>set to</b> 2 (AE) <b>and</b>   To <b>set to</b> CSE_RESOURCE_ADDRESS <b>and</b>   From <b>set to</b> empty <b>and</b>   Content <b>containing</b>   AE resource representation } </pre>	<p>NA</p> <p>CSE ← IUT</p>

## 3. AE/REG/00002/00002

Create <AE> with *resourceName* attribute

## 4. AE/REG/00002/00003

Create <AE> with *expirationTime* attribute

5. AE/REG/00002/00004

Create <AE> with *labels*

6. AE/REG/00002/00005

Create <AE> with *applicationName*

7. AE/REG/00002/00006

Create <AE> with *pointOfAccess*

8. AE/REG/00002/00007

Create <AE> with *nodeLink*

9. AE/REG/00002/00008

Create <AE> with *contentSerialization*

10. AE/REG/00002/00009

Update <AE> with *expirationTime*

11. AE/REG/00002/00010

Update <AE> with *labels*

TP/oneM2M/AE/DMR/UPD/BV/001

<b>TP Id</b>	TP/oneM2M/AE/DMR/UPD/BV/001	
<b>Test objective</b>	Check that the IUT sends a UPDATE Request with the value of the attribute <i>ATTRIBUTE_NAME</i> of the <i>TARGET_RESOURCE_ADDRESS</i> resource	
<b>Reference</b>	TS-0001 10.1.3	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> registered <b>and</b> the CSE <b>having created</b> a resource <i>TARGET_RESOURCE_ADDRESS</i> of type <i>RESOURCE_TYPE</i> <b>containing</b> a RW attribute <i>ATTRIBUTE_NAME</i> <b>set to</b> <i>VALUE_1</i> <b>and</b> the IUT <b>having</b> privileges to perform UPDATE operation on resource <i>TARGET_RESOURCE_ADDRESS</i> <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>is triggered to send</b> a UPDATE Request on the <i>TARGET_RESOURCE_ADDRESS</i> containing <i>ATTRIBUTE_NAME</i> attribute <b>}</b>	NA
	<b>then {</b> the IUT <b>sends</b> a valid UPDATE Request <b>containing</b> To <b>set to</b> <i>TARGET_RESOURCE_ADDRESS</i> <b>and</b> From <b>set to</b> <i>AE_ID</i> <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> valid <i>ATTRIBUTE_NAME</i> attribute <b>set to</b> <i>VALUE_2</i> <b>}</b>	IUT → CSE

TP Id	Reference	RESOURCE_TYPE	ATTRIBUTE_NAME
TP/oneM2M/AE/DMR/UPD/BV/001_01	TS-0001 10.2.1.3	2 (AE)	labels

TP/oneM2M/AE/DMR/UPD/BV/001\_01

12.AE/REG/00002/00011

Update <AE> with *applicationName*

13.AE/REG/00002/00012

Update <AE> with *pointOfAccess*

14.AE/REG/00002/00013

Update <AE> with *nodeLink*

15.AE/REG/00002/00014

Update <AE> with *requestReachability*

16.AE/REG/00002/00015

Update <AE> with *contentSerialization*

17.AE/REG/00002/00016

Delete <AE>

TP/oneM2M/AE/REG/BV/002

<b>TP Id</b>	TP/oneM2M/AE/REG/BV/002	
<b>Test objective</b>	Check that the IUT sends AE deregistration request to CSE	
<b>Reference</b>	TS-0001 10.1.4.2.2	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" the IUT <b>having registered</b> to CSE <b>and</b> the IUT <b>having</b> privileges to perform DELETE operation on the resource AE to CSE <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>is triggered to send</b> a DELETE Request on the AE_RESOURCE_ADDRESS <b>}</b>	<b>NA</b>
	<b>then {</b> the IUT <b>sends</b> a valid DELETE Request <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	<b>CSE ←</b> <b>IUT</b>

18.AE/REG/00002/00017

Retrieve <AE>

TP/oneM2M/AE/DMR/RET/BV/001\_02

### 3.Data Management and Repository (DMR)

#### 1. AE/DMR/00001/00001

Create <container> with no attribute set

TP/oneM2M/AE/DMR/BV/001

<b>TP Id</b>	TP/oneM2M/AE/DMR/BV/001	
<b>Test objective</b>	Check that the IUT sends a Container creation request when it is triggered	
<b>Reference</b>	TS-0001 10.1.1.1 & 10.2.4.1, TS-0004 7.2.2.1 & 7.4.7.1	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE.	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> registered <b>and</b> the IUT <b>being</b> switched on <b>and</b> the IUT <b>having</b> privileges to perform CREATE operation on resource AE_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>is triggered to send</b> a container CREATE Request <b>}</b>	IUT ← CSE
	<b>then {</b> the IUT <b>sends</b> a valid Container CREATE Request to CSE <b>containing</b> Resource Type <b>set to</b> 3 (container) <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> container resource representation <b>}</b>	CSE ← IUT

#### 2. AE/DMR/00001/00002

Create <container> with *resourceName*

#### 3. AE/DMR/00001/00003

Create <container> with *expirationTime*

#### 4. AE/DMR/00001/00004

Create <container> with *labels*

#### 5. AE/DMR/00001/00005

Create <container> with *creator*

#### 6. AE/DMR/00001/00006

Create <container> with *maxNrOfInstances*

<b>TP Id</b>	TP/oneM2M/AE/DMR/BV/004	
<b>Test objective</b>	Check that the IUT sends a Container creation request with optional attribute ATTRIBUTE_NAME when it is triggered	
<b>Reference</b>	TS-0001 10.1.1.1 & 10.2.4.1, TS-0004 7.2.2.1 & 7.4.7.1	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE.	
<b>Initial conditions</b>	with { the IUT <b>being</b> registered <b>and</b> the IUT <b>having</b> privileges to perform CREATE operation on resource AE_RESOURCE_ADDRESS }	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	when { the IUT is triggered to send a container CREATE Request }	IUT ← CSE
	then { the IUT <b>sends</b> a valid CREATE Request to CSE <b>containing</b> Resource Type <b>set to</b> 3 (container) <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> valid ATTRIBUTE_NAME attribute }	CSE ← IUT

TP ID	ATTRIBUTE_NAME
TP/oneM2M/AE/DMR/BV/004_01	accessControlPolicyIDs
TP/oneM2M/AE/DMR/BV/004_02	maxNrOfInstances
TP/oneM2M/AE/DMR/BV/004_03	maxByteSize
TP/oneM2M/AE/DMR/BV/004_04	maxInstanceAge
TP/oneM2M/AE/DMR/BV/004_05	ontologyRef
TP/oneM2M/AE/DMR/BV/004_06	locationID

Editor's Note: Combination of optional attributes that are included in the Content of container creation request can be extended to generate more test cases based on this test case.

#### TP/oneM2M/AE/DMR/BV/004\_02

##### 7. AE/DMR/00001/00007

Create <container> with *maxByteSize*

#### TP/oneM2M/AE/DMR/BV/004\_03

##### 8. AE/DMR/00001/00008

Create <container> with *maxInstanceAge*

#### TP/oneM2M/AE/DMR/BV/004\_04

##### 9. AE/DMR/00001/00009

Update <container> with *expirationTime*

10.AE/DMR/00001/00010

Update <container> with *labels*

11.AE/DMR/00001/00011

Update <container> with *maxNrOfInstances*

12.AE/DMR/00001/00012

Update <container> with *maxByteSize*

13.AE/DMR/00001/00013

Update <container> with *maxInstanceAge*

14.AE/DMR/00001/00014

Delete <container>

15.AE/DMR/00001/00015

Retrieve <container>



16.AE/DMR/00002/00001

Create <contentInstance> with mandatory attributes[2]

TP/oneM2M/AE/DMR/BV/002

<b>TP Id</b>	TP/oneM2M/AE/DMR/BV/002	
<b>Test objective</b>	Check that the IUT sends a ContentInstance creation request when it is triggered	
<b>Reference</b>	TS-0001 10.1.1.1 & 10.2.4.1, TS-0004 7.2.2.1 & 7.4.8.2.1	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE.	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> registered <b>and</b> the IUT <b>having</b> created a container resource CONTAINER_RESOURCE_ADDRESS <b>and</b> the IUT <b>having</b> privileges to perform CREATE operation on resource CONTAINER_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>is triggered to send</b> a contentInstance CREATE Request <b>}</b>	IUT ← CSE
	<b>then {</b> the IUT <b>sends</b> a valid CREATE Request to CSE <b>containing</b> Resource Type <b>set to</b> 4 (contentInstance) <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> contentInstance resource representation <b>}</b>	CSE ← IUT

17.AE/DMR/00002/00002

Create <contentInstance> with *resourceName*

18.AE/DMR/00002/00003

Create <contentInstance> with *expirationTime*

19.AE/DMR/00002/00004

Create <contentInstance> with *labels*

20.AE/DMR/00002/00005

Create <contentInstance> with *creator*

21.AE/DMR/00002/00006

Create <contentInstance> with *contentInfo*

<b>TP Id</b>	TP/oneM2M/AE/DMR/BV/003	
<b>Test objective</b>	Check that the IUT sends a ContentInstance creation request with optional attribute ATTRIBUTE_NAME when it sensed updated data	
<b>Reference</b>	TS-0001 10.1.1.1 & 10.2.4.1, TS-0004 7.2.2.1 & 7.4.8.2.1	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> registered <b>and</b> the IUT <b>having</b> created a container resource CONTAINER_RESOURCE_ADDRESS through preconfiguration request <b>and</b> the IUT <b>having</b> privileges to perform CREATE operation on resource CONTAINER_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>is triggered to send</b> a contentInstance CREATE Request <b>}</b>	<b>NA</b>
	<b>then {</b> the IUT <b>sends</b> a valid CREATE Request to CSE <b>containing</b> Resource Type <b>set to</b> 4 (contentInstance) <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> Content <b>containing</b> SENSED_DATA_QUANTITY <b>and</b> valid <i>ATTRIBUTE_NAME</i> attribute <b>}</b>	<b>CSE ← IUT</b>

<b>TP ID</b>	<b>ATTRIBUTE_NAME</b>
TP/oneM2M/AE/DMR/BV/003_01	contentInfo
TP/oneM2M/AE/DMR/BV/003_02	ontologyRef

**TP/oneM2M/AE/DMR/BV/003\_01**

22.AE/DMR/00002/00007

Create <contentInstance> with *contentRef*

**TP/oneM2M/AE/DMR/BV/003\_01**

23.AE/DMR/00002/00008

Retrieve <contentInstance> resource targeting the <contentInstance> resource

24.AE/DMR/00002/00009

Retrieve oldest <contentInstance> resource targeting the <oldest> resource

<b>TP Id</b>	TP/oneM2M/AE/DMR/RET/BV/002	
<b>Test objective</b>	Check that the IUT sends a RETRIEVE Request of oldest virtual resource.	
<b>Reference</b>	TS-0001 10.2.23.1, TS-0004 7.4.29.2.3	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE	
<b>Initial conditions</b>	<pre> with {   the IUT <b>being</b> registered   and the IUT <b>being</b> switched on   and the CSE <b>having created</b> a container resource   and the CSE <b>having created</b> a contentInstance resource under container resource   and the IUT <b>having</b> privileges to perform RETRIEVE operation on contentInstance resource } </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when {   the IUT <b>is triggered to send</b> a RETRIEVE Request on the oldest virtual resource } </pre>	NA
	<pre> then {   the IUT <b>sends</b> a valid RETRIEVE Request <b>containing</b>   To <b>set to</b> CONTAINER_RESOURCE_ADDRESS/oldest <b>and</b>   From <b>set to</b> AE_ID } </pre>	IUT → CSE

25.AE/DMR/00002/00010

Retrieve latest <contentInstance> resource targeting the <latest> resource

<b>TP Id</b>	TP/oneM2M/AE/DMR/RET/BV/003	
<b>Test objective</b>	Check that the IUT sends a RETRIEVE Request of latest virtual resource.	
<b>Reference</b>	TS-0001 10.2.22.1, TS-0004 7.4.28.2.3	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE	
<b>Initial conditions</b>	<pre> with {   the IUT <b>being</b> registered   and the IUT <b>being</b> switched on   and the CSE <b>having created</b> a container resource   and the CSE <b>having created</b> a contentInstance resource under container resource   and the IUT <b>having</b> privileges to perform RETRIEVE operation on contentInstance resource } </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when {   the IUT <b>is triggered to send</b> a RETRIEVE Request on the latest virtual resource } </pre>	NA
	<pre> then {   the IUT <b>sends</b> a valid RETRIEVE Request <b>containing</b>   To <b>set to</b> CONTAINER_RESOURCE_ADDRESS/latest and   From <b>set to</b> AE_ID } </pre>	IUT → CSE

26.AE/DMR/00002/00011

Delete <contentInstance>

27.AE/DMR/00002/00012

Delete oldest <contentInstance> resource targeting the <oldest> resource

<b>TP Id</b>	TP/oneM2M/AE/DMR/DEL/BV/001	
<b>Test objective</b>	Check that the IUT sends a DELETE Request of oldest virtual resource.	
<b>Reference</b>	TS-0001 10.2.23.2, TS-0004 7.4.29.2.5	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> registered <b>and</b> the IUT <b>being</b> switched on <b>and</b> the CSE <b>having created</b> a container resource <b>and</b> the CSE <b>having created</b> a contentInstance resource under container resource <b>and</b> the IUT <b>having</b> privileges to perform DELETE operation on contentInstance resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>is triggered to send</b> a DELETE Request on the oldest virtual resource <b>}</b>	NA
	<b>then {</b> the IUT <b>sends</b> a valid DELETE Request <b>containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS/oldest <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT → CSE

## 28.AE/DMR/00002/00013

Delete latest &lt;contentInstance&gt; resource targeting the &lt;latest&gt; resource

<b>TP Id</b>	TP/oneM2M/AE/DMR/DEL/BV/002	
<b>Test objective</b>	Check that the IUT sends a DELETE Request of latest virtual resource.	
<b>Reference</b>	TS-0001 10.2.22.2, TS-0004 7.4.28.2.5	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> registered <b>and</b> the IUT <b>being</b> switched on <b>and</b> the CSE <b>having created</b> a container resource <b>and</b> the CSE <b>having created</b> a contentInstance resource under container resource <b>and</b> the IUT <b>having</b> privileges to perform DELETE operation on contentInstance resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>is triggered to send</b> a DELETE Request on the latest virtual resource <b>}</b>	NA
	<b>then {</b> the IUT <b>sends</b> a valid DELETE Request <b>containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS/latest <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT → CSE

## 4.Subscription and Notification (SUB)

### 1. AE/SUB/00001/00001

Create <subscription> with mandatory attributes [2]

TP/oneM2M/AE/SUB/BV/001

<b>TP Id</b>	TP/oneM2M/AE/SUB/BV/001	
<b>Test objective</b>	Check that the IUT sends a subscription creation request	
<b>Reference</b>	TS-0001 10.1.1.1 & 10.2.4.1, TS-0004 7.2.2.1 & 7.4.9.2.1	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE.	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> registered <b>and</b> the IUT <b>being</b> switched off <b>and</b> the IUT <b>having</b> privileges to perform CREATE operation on resource AE_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>is triggered to send</b> a subscription CREATE Request <b>}</b>	<b>NA</b>
	<b>then {</b> the IUT <b>sends</b> a valid CREATE Request to CSE <b>containing</b> Resource Type <b>set to</b> 23 (subscription) <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> subscription resource representation <b>}</b>	CSE ← IUT

<b>TP Id</b>	TP/oneM2M/AE/SUB/BV/003	
<b>Test objective</b>	Check that the IUT sends a Notify Response to the hosting CSE when receiving a Notify request containing a single notification	
<b>Reference</b>	TS-0001 6.1.12, TS-0004 7.5.1.2	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>having been</b> registered <b>and</b> the IUT <b>having created</b> subscription resource under the CSE <b>and</b> the IUT <b>being</b> reachable through a URL ACCESSIBLE_URL <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a NOTIFY Request from hosting CSE <b>containing</b> Content <b>containing</b> notification message representation <b>}</b>	IUT ← CSE
	<b>then {</b> the IUT <b>sends</b> a valid NOTIFY Response to the hosting CSE <b>containing</b> Response Status Code <b>set to</b> RESPONSE_STATUS_CODE <b>}</b>	CSE ← IUT

## 2. AE/SUB/00001/00002

Create <subscription> with *labels* attribute

<b>TP Id</b>	TP/oneM2M/AE/SUB/BV/004	
<b>Test objective</b>	Check that the IUT sends a subscription creation request with optional attribute ATTRIBUTE_NAME when it is triggered	
<b>Reference</b>	TS-0001 10.1.1.1 & 10.2.11.2, TS-0004 7.2.2.1 & 7.4.9.2.1	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE.	
<b>Initial conditions</b>	with { the IUT <b>being</b> registered <b>and</b> the IUT <b>having</b> privileges to perform CREATE operation on resource AE_RESOURCE_ADDRESS }	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	when { the IUT is triggered to send a subscription CREATE Request }	IUT ← CSE
	then { the IUT <b>sends</b> a valid CREATE Request to CSE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 23 (subscription) <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> subscription resource <b>containing</b> notificationURI attribute <b>and</b> valid ATTRIBUTE_NAME attribute }	CSE ← IUT

TP ID	Reference	ATTRIBUTE_NAME
TP/oneM2M/AE/SUB/BV/004_01	TS-0001 9.6.8, TS-0004 7.4.9.1	accessControlPolicyIDs
TP/oneM2M/AE/SUB/BV/004_02	TS-0001 9.6.8, TS-0004 7.4.9.1	eventNotificationCriteria
TP/oneM2M/AE/SUB/BV/004_03	TS-0001 9.6.8, TS-0004 7.4.9.1	expirationCounter
TP/oneM2M/AE/SUB/BV/004_04	TS-0001 9.6.8, TS-0004 7.4.9.1	notificationForwardingURI
TP/oneM2M/AE/SUB/BV/004_05	TS-0001 9.6.8, TS-0004 7.4.9.1	notificationContentType
TP/oneM2M/AE/SUB/BV/004_06	TS-0001 9.6.8, TS-0004 7.4.9.1	notificationEventCat
TP/oneM2M/AE/SUB/BV/004_07	TS-0001 9.6.8, TS-0004 7.4.9.1	subscriberURI

Editor’s Note: Combination of optional attributes that are included in the Content of subscription creation request can be extended to generate more test cases based on this test case.

3. AE/SUB/00001/00003

Create <subscription> with *expirationTime* attribute

4. AE/SUB/00001/00004

Create <subscription> with *creator* attribute

5. AE/SUB/00001/00005

Create <subscription> with *subscriberURI* attribute

TP/oneM2M/AE/SUB/BV/004\_07



6. AE/SUB/00001/00006

Update <subscription> with *labels* attribute

7. AE/SUB/00001/00007

Update <subscription> with *expirationTime* attribute

8. AE/SUB/00001/00008

Update <subscription> with *creator* attribute

9. AE/SUB/00001/00009

Delete <Subscription>

10.AE/SUB/00001/00010

Retrieve <Subscription>

11.AE/SUB/00002/00001

Create <subscription> with *eventNotificationCriteria* attribute

TP/oneM2M/AE/SUB/BV/004\_02

12.AE/SUB/00002/00002

Create <subscription> with *expirationCounter* attribute

TP/oneM2M/AE/SUB/BV/004\_03

13.AE/SUB/00002/00003

Create <subscription> with *batchNotify* attribute

14.AE/SUB/00002/00004

Create <subscription> with *rateLimit* attribute

15.AE/SUB/00002/00005

Create <subscription> with *preSubscriptionNotify* attribute

16.AE/SUB/00002/00006

Create <subscription> with *pendingNotification* attribute

17.AE/SUB/00002/00007

Create <subscription> with *notificationStoragePriority* attribute

18.AE/SUB/00002/00008

Create <subscription> with *latestNotify* attribute

19.AE/SUB/00002/00009

Create <subscription> with *notificationContentType* attribute

TP/oneM2M/AE/SUB/BV/004\_05

20.AE/SUB/00002/00010

Create <subscription> with *notificationEventCat* attribute

TP/oneM2M/AE/SUB/BV/004\_06

21.AE/SUB/00002/00011

Update <subscription> with *eventNotificationCriteria* attribute

22.AE/SUB/00002/00012

Update <subscription> with *expirationCounter* attribute

23.AE/SUB/00002/00013

Update <subscription> with *batchNotify* attribute

24.AE/SUB/00002/00014

Update <subscription> with *rateLimit* attribute

25.AE/SUB/00002/00015

Update <subscription> with *pendingNotification* attribute

26.AE/SUB/00002/00016

Update <subscription> with *notificationStoragePriority* attribute

27.AE/SUB/00002/00017

Update <subscription> with *latestNotify* attribute

28.AE/SUB/00002/00018

Update <subscription> with *notificationContentType* attribute

29.AE/SUB/00002/00019

Update <subscription> with *notificationEventCat* attribute

30.AE/SUB/00003/00001

Create <subscription> with *notificationForwardingURI* attribute

TP/oneM2M/AE/SUB/BV/002

<b>TP Id</b>	TP/oneM2M/AE/SUB/BV/002	
<b>Test objective</b>	Check that the IUT sends a Notify Response to the hosting CSE when receiving a Notify request containing aggregated notifications	
<b>Reference</b>	TS-0001 6.2.12, TS-0004 7.5.1.2	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>having been</b> registered <b>and</b> the IUT <b>having created</b> subscription resource under the CSE <b>and</b> the IUT <b>being</b> reachable through a URL ACCESSIBLE_URL <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a NOTIFY Request from hosting CSE <b>containing</b> Content <b>containing</b> aggregatedNotification message representation <b>}</b>	IUT ← CSE
	<b>then {</b> the IUT <b>sends</b> a valid Response to the hosting CSE <b>containing</b> Response Status Code <b>set to</b> RESPONSE_STATUS_CODE <b>}</b>	CSE ← IUT

TP/oneM2M/AE/SUB/BV/003

<b>TP Id</b>	TP/oneM2M/AE/SUB/BV/003	
<b>Test objective</b>	Check that the IUT sends a Notify Response to the hosting CSE when receiving a Notify request containing a single notification	
<b>Reference</b>	TS-0001 6.1.12, TS-0004 7.5.1.2	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_AE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>having been</b> registered <b>and</b> the IUT <b>having created</b> subscription resource under the CSE <b>and</b> the IUT <b>being</b> reachable through a URL ACCESSIBLE_URL <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a NOTIFY Request from hosting CSE <b>containing</b> Content <b>containing</b> notification message representation <b>}</b>	IUT ← CSE
	<b>then {</b> the IUT <b>sends</b> a valid NOTIFY Response to the hosting CSE <b>containing</b> Response Status Code <b>set to</b> RESPONSE_STATUS_CODE <b>}</b>	CSE ← IUT

TP/oneM2M/AE/SUB/BV/004\_04

## 5. Group Management (GMG)

1. AE/GMG/00001/00001

Create <group> resource with mandatory attributes[2]

2. AE/GMG/00001/00002

Create <group> resource with *resourceName*

3. AE/GMG/00001/00003

Create <group> resource with *expirationTime*

4. AE/GMG/00001/00004

Create <group> resource with *labels*

5. AE/GMG/00001/00005

Create <group> resource with *creator*

6. AE/GMG/00001/00006

Create <group> resource with *memberType*

7. AE/GMG/00001/00007

Create <group> resource with *membersAccessControlPolicyIDs*

8. AE/GMG/00001/00008

Create <group> resource with *consistencyStrategy*

9. AE/GMG/00001/00009

Create <group> resource with *groupName*

10. AE/GMG/00001/00010

Update <group> resource with *expirationTime*

11. AE/GMG/00001/00011

Update <group> resource with *labels*

12. AE/GMG/00001/00012

Update <group> resource with *maxNrOfMembers*

13. AE/GMG/00001/00013

Update <group> resource with *memberIDs*

14. AE/GMG/00001/00014

Update <group> resource with *membersAccessControlPolicyIDs*

15. AE/GMG/00001/00015

Update <group> resource with *groupName*

16. AE/GMG/00001/00016

Delete <group> resource

17. AE/GMG/00001/00017

Retrieve <group> resource

18.AE/GMG/00002/00001

Request by addressing *fanOutPoint* of group resource

19.AE/GMG/00002/00002

Create <subscription> resource via group without aggregating notifications

20.AE/GMG/00002/00003

Create <subscription> resource via group and aggregate notifications

## 6.Discovery (DIS)

1. AE/DIS/00001/00001

Support discovery of resources without *filterCriteria*

2. AE/DIS/00001/00002

Support filter according to creation time (*createdBefore, createdAfter*)

3. AE/DIS/00001/00003

Support filter according to modified time (*modifiedSince, unmodifiedSinse*)

4. AE/DIS/00001/00004

Support filter according to state tag (*stateTagSmaller, stateTagBigger*)

5. AE/DIS/00001/00005

Support filter according to expiration time (*expireBefore, expireAfter*)

6. AE/DIS/00001/00006

Support filter according to labels (*labels*)

7. AE/DIS/00001/00007

Support filter according to resource type (*resourceType*)

8. AE/DIS/00001/00008

Support filter according to resource size (*sizeAbove, sizeBelow*)

9. AE/DIS/00001/00009

Support filter according to contentType (*contentType*)

10.AE/DIS/00001/00010

Support limit the number of resources in the response (*limit*)

11.AE/DIS/00001/00011

Support filter according to attributes (*attribute*)

12.AE/DIS/00001/00012

Support the logical operation between multiple criterias (*filterOperation*)

13.AE/DIS/00001/00013

Support limit the level of the discovery (*level*)

14.AE/DIS/00001/00014

Support indicating the offset when returning the discovered results (*offset*)

15.AE/DIS/00001/00015

Support content based discovery (*contentFilterSyntax, contentFilterQuery*)

## 7.Location (LOC)

**Editor's Note: Features for Location Management functionality will be added here later.**

## 8.Device Management (DMG)

1. AE/DMG/00001/00001

Create <node> resource with mandatory attributes[2]

2. AE/DMG/00001/00002

Create <node> resource with *resourceName*

3. AE/DMG/00001/00003

Create <node> resource with *expirationTime*

4. AE/DMG/00001/00004

Create <node> resource with *labels*

5. AE/DMG/00001/00005

Create <node> resource with *hostedCSELink*

6. AE/DMG/00001/00006

Update <node> resource with *expirationTime*

7. AE/DMG/00001/00007

Update <node> resource with *labels*

8. AE/DMG/00001/00008

Update <node> resource with *nodeID*

9. AE/DMG/00001/00009

Delete <node>

10.AE/DMG/00001/00010

Retrieve <node>

11.AE/DMG/00002/00001

Create <mgmtObj> with mandatory attributes[2]

12.AE/DMG/00002/00003

Create <mgmtObj> resource with *resourceName*

13.AE/DMG/00002/00004

Create <mgmtObj> resource with *expirationTime*

14.AE/DMG/00002/00005

Create <mgmtObj> resource with *labels*

15.AE/DMG/00002/00006

Create <mgmtObj> resource with *mgmtLink*

16.AE/DMG/00002/00007

Update <mgmtObj> resource with *description*

17.AE/DMG/00002/00008

Update <mgmtObj> resource with *mgmtLink*

18.AE/DMG/00002/00009

Update <mgmtObj> resource with *expirationTime*

19.AE/DMG/00002/00010

Update <mgmtObj> resource with *labels*

20.AE/DMG/00002/00011

Delete <mgmtObj>

21.AE/DMG/00002/00012

Retrieve <mgmtObj>

22.AE/DMG/00003/00001

Create [software] resource with mandatory [*objectAttribute*][2]

23.AE/DMG/00003/00002

Update [software] resource with *softwareName*

24.AE/DMG/00003/00003

Update [software] resource with *URL*

25.AE/DMG/00003/00004

Update [software] resource with *install*

26.AE/DMG/00003/00005

Update [software] resource with *uninstall*

27.AE/DMG/00003/00006

Update [software] resource with *activate*

28.AE/DMG/00003/00007

Update [software] resource with *deactive*

29.AE/DMG/00004/00001

Create [firmware] resource with mandatory [*objectAttribute*][2]

30.AE/DMG/00004/00002

Update [firmware] resource with *version*

31.AE/DMG/00004/00003

Update [firmware] resource with *firmwareName*

32.AE/DMG/00004/00004

Update [firmware] resource with *URL*

33.AE/DMG/00004/00005

Update [firmware] resource with *update*

34.AE/DMG/00004/00006

Update [firmware] resource with *updateStatus*

35.AE/DMG/00005/00001

Create [deviceInfo] resource with mandatory *[objectAttribute][2]*

36.AE/DMG/00005/00002

Update [deviceInfo] resource with *deviceLabel* attribute

37.AE/DMG/00005/00003

Update [deviceInfo] resource with *manufacture* attribute

38.AE/DMG/00005/00004

Update [deviceInfo] resource with *model* attribute

39.AE/DMG/00005/00005

Update [deviceInfo] resource with *deviceType* attribute

40.AE/DMG/00005/00006

Update [deviceInfo] resource with *fwVersion* attribute

41.AE/DMG/00005/00007

Update [deviceInfo] resource with *swVersion* attribute

42.AE/DMG/00005/00008

Update [deviceInfo] resource with *hwVersion* attribute

43.AE/DMG/00006/00001

Create [deviceCapability] resource with mandatory *[objectAttribute][2]*

44.AE/DMG/00006/00002

Create [deviceCapability] resource with *enable*

45.AE/DMG/00006/00003

Create [deviceCapability] resource with *disable*

46.AE/DMG/00006/00004

Update [deviceCapability] resource with *capabilityName*

47.AE/DMG/00006/00005

Update [deviceCapability] resource with *attached*

48.AE/DMG/00006/00006

Update [deviceCapability] resource with *capabilityActionStatus*



49.AE/DMG/00006/00007

Update [deviceCapability] resource with *currentState*

50.AE/DMG/00006/00008

Update [deviceCapability] resource with *enable*

51.AE/DMG/00006/00009

Update [deviceCapability] resource with *disable*

52.AE/DMG/00007/00001

Create [reboot] resource with *reboot* attribute

53.AE/DMG/00007/00002

Create [reboot] resource with *factoryReset* attribute

54.AE/DMG/00007/00003

Update [reboot] resource with *reboot* attribute

55.AE/DMG/00007/00004

Update [reboot] resource with *factoryReset* attribute

56.AE/DMG/00008/00001

Create [memory] resource with mandatory *[objectAttribute][2]*

57.AE/DMG/00008/00002

Update [memory] resource with *memAvailable* attribute

58.AE/DMG/00008/00003

Update [memory] resource with *memTotal* attribute

59.AE/DMG/00009/00001

Create [battery] resource with mandatory *[objectAttribute][2]*

60.AE/DMG/00009/00002

Update [battery] resource with *batteryLevel* attribute

61.AE/DMG/00009/00003

Update [battery] resource with *batteryStatus* attribute

62.AE/DMG/00010/00001

Create [eventLog] resource with mandatory *[objectAttribute][2]*

63.AE/DMG/00010/00002

Create [eventLog] resource with *logStart* attribute

64.AE/DMG/00010/00003

Create [eventLog] resource with *logStop* attribute

65.AE/DMG/00010/00004

Update [eventLog] resource with *logTypeId* attribute

66.AE/DMG/00010/00005

Update [eventLog] resource with *logData* attribute

67.AE/DMG/00010/00006

Update [eventLog] resource with *logStatus* attribute

68.AE/DMG/00010/00007

Update [eventLog] resource with *logStart* attribute

69.AE/DMG/00010/00008

Update [eventLog] resource with *logStop* attribute

70.AE/DMG/00011/00001

Create [areaNwkInfo] resource with mandatory [*objectAttribute*][2]

71.AE/DMG/00011/00002

Update [areaNwkInfo] resource with *areaNwkType*

72.AE/DMG/00011/00003

Update [areaNwkInfo] resource with *listOfDevices*

73.AE/DMG/00012/00001

Create [areaNwkDeviceInfo] resource with mandatory [*objectAttribute*][2]

74.AE/DMG/00012/00002

Create [areaNwkDeviceInfo] resource with *sleepInterval*

75.AE/DMG/00012/00003

Create [areaNwkDeviceInfo] resource with *sleepDuration*

76.AE/DMG/00012/00004

Create [areaNwkDeviceInfo] resource with *devStatus*

77.AE/DMG/00012/00005

Update [areaNwkDeviceInfo] resource with *devID*

78.AE/DMG/00012/00006

Update [areaNwkDeviceInfo] resource with *devType*

79.AE/DMG/00012/00007

Update [areaNwkDeviceInfo] resource with *areaNwkId*

80.AE/DMG/00012/00008

Update [areaNwkDeviceInfo] resource with *sleepInterval*

81.AE/DMG/00012/00009

Update [areaNwkDeviceInfo] resource with *sleepDuration*

82.AE/DMG/00012/00010

Update [areaNwkDeviceInfo] resource with *devStatus*

83.AE/DMG/00012/00011

Update [areaNwkDeviceInfo] resource with *listOfNeighbors*

## 9. Communication Management and Delivery Handling (CMDH)

Editor's Note: Features for CMDH functionality will be added here later.

## 10. Security (SEC)

### 1. AE/SEC/00001/00001

Create <accessControlPolicy> resource with mandatory attributes[2]

### 2. AE/SEC/00001/00002

Create <accessControlPolicy> resource with *resourceName*

### 3. AE/SEC/00001/00003

Create <accessControlPolicy> resource with *expirationTime*

### 4. AE/SEC/00001/00004

Create <accessControlPolicy> resource with *labels*

### 5. AE/SEC/00001/00005

Update <accessControlPolicy> resource with *expirationTime*

### 6. AE/SEC/00001/00006

Update <accessControlPolicy> resource with *labels*

### 7. AE/SEC/00001/00007

Update <accessControlPolicy> resource with *privileges*

### 8. AE/SEC/00001/00008

Update <accessControlPolicy> resource with *selfPrivileges*

### 9. AE/SEC/00001/00009

Delete <accessControlPolicy> resource

### 10. AE/SEC/00001/00010

Retrieve <accessControlPolicy> resource

### 3.Group CSE (CE)

#### 1. General Capability (GEN)

##### 1. CE/GEN/00001/00001

Support Unstructured resource identifier

##### 2. CE/GEN/00001/00002

Support Structured resource identifier

##### 3. CE/GEN/00002/00001

Support blocking request

##### 4. CE/GEN/00002/00002

Support of request with *Result Content*

#### RETRIEVE OPERATION

TP/oneM2M/CSE/DMR/BV/001

<b>TP Id</b>	TP/oneM2M/CSE/DMR/BV/001	
<b>Test objective</b>	Check that the IUT rejects a RETRIEVE Request target to TARGET_RESOURCE_ADDRESS resource when the Result Content set to RESULT_CONTENT	
<b>Reference</b>	TS-0001 8.1.2 & TS-0004 7.3.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_IDENTIFIER <b>and</b> Result Content <b>set to</b> RESULT_CONTENT <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4000 (BAD_REQUEST) <b>and</b> <b>no</b> Content <b>}</b>	IUT → AE

TP ID	Reference	RESULT_CONTENT
TP/oneM2M/CSE/DMR/BV/001_01	TS-0004 6.3.4.2.7	0 (Nothing)
TP/oneM2M/CSE/DMR/BV/001_02		2 (hierarchical address)
TP/oneM2M/CSE/DMR/BV/001_03		3 (attributes and hierarchichal address)

<b>TP Id</b>	TP/oneM2M/CSE/DMR/BV/002	
<b>Test objective</b>	Check that the IUT returns successfully only attributes of TARGET_RESOURCE_ADDRESS resource when the Result Content is set to 1 (attributes)	
<b>Reference</b>	TS-0001 8.1.2 & TS-0004 6.3.3.2.7	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE <b>containing</b> a child resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Result Content <b>set to</b> 1 (attributes) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> attributes <b>and</b> <b>no</b> hierarchichal address <b>and</b> <b>no</b> child resources <b>and</b> <b>no</b> child resource references <b>}</b>	IUT → AE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/BV/002_01	3 (container)
TP/oneM2M/CSE/DMR/BV/002_02	9 (group)
TP/oneM2M/CSE/DMR/BV/002_03	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/BV/002_04	18 (schedule)
TP/oneM2M/CSE/DMR/BV/002_05	15 (pollingChannel)
TP/oneM2M/CSE/DMR/BV/002_06	23 (subscription)

<b>TP Id</b>	TP/oneM2M/CSE/DMR/BV/003	
<b>Test objective</b>	Check that the IUT returns successfully only attributes and child resources of TARGET_RESOURCE_ADDRESS resource when the Result Content is set to 4 (attributes and child resources)	
<b>Reference</b>	TS-0001 8.1.2 & TS-0004 6.3.3.2.7	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type <b>RESOURCE_TYPE</b> <b>containing</b> a child resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_IDENTIFIER <b>and</b> Result Content <b>set to</b> 4 (attributes and child resources) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> attributes <b>and</b> no hierarchichal address <b>and</b> child resources <b>and</b> no child resource references <b>}</b>	IUT → AE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/BV/003_01	3 (container)
TP/oneM2M/CSE/DMR/BV/003_02	9 (group)
TP/oneM2M/CSE/DMR/BV/003_03	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/BV/003_04	18 (schedule)
TP/oneM2M/CSE/DMR/BV/003_05	15 (pollingChannel)
TP/oneM2M/CSE/DMR/BV/003_06	23 (subscription)

<b>TP Id</b>	TP/oneM2M/CSE/DMR/BV/004	
<b>Test objective</b>	Check that the IUT returns successfully only attributes and child resource references of TARGET_RESOURCE_ADDRESS resource when the Result Content is set to 5 (attributes and child resource references)	
<b>Reference</b>	TS-0001 8.1.2 & TS-0004 6.3.3.2.7	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE <b>containing</b> a child resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_IDENTIFIER <b>and</b> Result Content <b>set to</b> 5 (attributes and child resource references) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> attributes <b>and</b> <b>no</b> hierarchichal address <b>and</b> <b>no</b> child resources <b>and</b> child resource references <b>}</b>	IUT → AE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/BV/004_01	3 (container)
TP/oneM2M/CSE/DMR/BV/004_02	9 (group)
TP/oneM2M/CSE/DMR/BV/004_03	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/BV/004_04	18 (schedule)
TP/oneM2M/CSE/DMR/BV/004_05	15 (pollingChannel)
TP/oneM2M/CSE/DMR/BV/004_06	23 (subscription)

<b>TP Id</b>	TP/oneM2M/CSE/DMR/BV/005	
<b>Test objective</b>	Check that the IUT returns successfully only child resource references of TARGET_RESOURCE_ADDRESS resource when Result Content is set to 6 (child resource references)	
<b>Reference</b>	TS-0001 8.1.2 & TS-0004 6.3.3.2.7	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type <b>RESOURCE_TYPE</b> <b>containing</b> a child resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_IDENTIFIER <b>and</b> Result Content <b>set to</b> 6 (child resource references) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> <b>no</b> attributes <b>and</b> <b>no</b> hierarchichal address <b>and</b> <b>no</b> child resources <b>and</b> child resource references <b>}</b>	IUT → AE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/BV/005_01	3 (container)
TP/oneM2M/CSE/DMR/BV/005_02	9 (group)
TP/oneM2M/CSE/DMR/BV/005_03	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/BV/005_04	18 (schedule)
TP/oneM2M/CSE/DMR/BV/005_05	15 (pollingChannel)
TP/oneM2M/CSE/DMR/BV/005_06	23 (subscription)



<b>TP Id</b>	TP/oneM2M/CSE/DMR/BV/006	
<b>Test objective</b>	Check that the IUT returns successfully only child resources of TARGET_RESOURCE_ADDRESS resource when Result Content is set to 8 (child resources)	
<b>Reference</b>	TS-0001 8.1.2 & TS-0004 6.3.3.2.7	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE <b>containing</b> a child resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_IDENTIFIER <b>and</b> Result Content <b>set to</b> 8 (child resources) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> CHILD_RESOURCE_TYPE resource representation <b>}</b>	IUT → AE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/BV/006_01	3 (container)
TP/oneM2M/CSE/DMR/BV/006_02	9 (group)
TP/oneM2M/CSE/DMR/BV/006_03	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/BV/006_04	18 (schedule)
TP/oneM2M/CSE/DMR/BV/006_05	15 (pollingChannel)
TP/oneM2M/CSE/DMR/BV/006_06	23 (subscription)

CREATE OPERATION

TP/oneM2M/CSE/DMR/CRE/BV/012

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/012
<b>Test objective</b>	Check that the IUT returns successfully after a CREATE request an empty content of created resource when the ResultContent set to 0 (Nothing)
<b>Reference</b>	TS-0001 8.1.2, 8.1.3 & 10.1.1.1, TS-0004 6.3.4.2.7
<b>Config Id</b>	CF01
<b>PICS Selection</b>	PICS_CSE

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource AE_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Resource Type <b>set to</b> RESOURCE_TYPE <b>and</b> Result Content set to 0 (nothing) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> <b>no</b> Content <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/CRE/BV/012_01	TS-0001 10.2.4.1	3 (container)
TP/oneM2M/CSE/DMR/CRE/BV/012_02	TS-0001 10.2.7.2	9 (group)
TP/oneM2M/CSE/DMR/CRE/BV/012_03	TS-0001 10.2.21.1	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/CRE/BV/012_04		18 (schedule)
TP/oneM2M/CSE/DMR/CRE/BV/012_05	TS-0001 10.2.13.2	15 (pollingChannel)
TP/oneM2M/CSE/DMR/CRE/BV/012_06	TS-0001 10.2.11.2	23 (subscription)

TP/oneM2M/CSE/DMR/CRE/BV/013

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/013	
<b>Test objective</b>	Check that the IUT returns successfully after a CREATE request only hierarchichal address of the created resource when the Result Content is set to 2 (hierarchichal address)	
<b>Reference</b>	TS-0001 8.1.2, 8.1.3 &10.1.1.1, TS-0004 6.3.4.2.7	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource AE_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Resource Type <b>set to</b> RESOURCE_TYPE <b>and</b> Result Content <b>set to</b> 2 (hierarchichal address) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> Hierarchical address of the RESOURCE_TYPE resource <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/CRE/BV/013_01	TS-0001 10.2.4.1	3 (container)
TP/oneM2M/CSE/DMR/CRE/BV/013_02	TS-0001 10.2.7.2	9 (group)
TP/oneM2M/CSE/DMR/CRE/BV/013_03	TS-0001 10.2.21.1	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/CRE/BV/013_04		18 (schedule)
TP/oneM2M/CSE/DMR/CRE/BV/013_05	TS-0001 10.2.13.2	15 (pollingChannel)
TP/oneM2M/CSE/DMR/CRE/BV/013_06	TS-0001 10.2.11.2	23 (subscription)

TP/oneM2M/CSE/DMR/CRE/BV/014

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/014	
<b>Test objective</b>	Check that the IUT returns successfully after a CREATE request only attributes and hierarchichal address of the created resource when Result Content is set 3 (attributes and hierarchichal address)	
<b>Reference</b>	TS-0001 8.1.2, 8.1.3 &10.1.1.1, TS-0004 6.3.4.2.7	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource AE_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Resource Type <b>set to</b> RESOURCE_TYPE <b>and</b> Result Content <b>set to</b> 3 (attributes and hierarchichal address) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> Hierarchical address of the RESOURCE_TYPE resource <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/CRE/BV/014_01	TS-0001 10.2.4.1	3 (container)
TP/oneM2M/CSE/DMR/CRE/BV/014_02	TS-0001 10.2.7.2	9 (group)
TP/oneM2M/CSE/DMR/CRE/BV/014_03	TS-0001 10.2.21.1	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/CRE/BV/014_04		18 (schedule)
TP/oneM2M/CSE/DMR/CRE/BV/014_05	TS-0001 10.2.13.2	15 (pollingChannel)
TP/oneM2M/CSE/DMR/CRE/BV/014_06	TS-0001 10.2.11.2	23 (subscription)

TP/oneM2M/CSE/DMR/CRE/BV/018

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/018	
<b>Test objective</b>	Check that the IUT rejects a CREATE request when the ResultContent is set to <i>RESULT_CONTENT</i>	
<b>Reference</b>	TS-0001 8.1.2 & TS-0004 7.3.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource AE_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_IDENTIFIER <b>and</b> Result Content <b>set to</b> RESULT_CONTENT <b>}</b>	IUT ← AE

<pre> then {   the IUT <b>sends</b> a valid Response <b>containing</b>   Response Status Code <b>set to</b> 4000 (BAD_REQUEST) } </pre>	IUT → AE
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TP ID	Reference	RESULT_CONTENT
TP/oneM2M/CSE/DMR/CRE/BV/018_01	TS-0004 6.3.4.2.7	4 (attributes and child resources)
TP/oneM2M/CSE/DMR/CRE/BV/018_02		5 (attributes and child resources references)
TP/oneM2M/CSE/DMR/CRE/BV/018_03		6 (child resources references)
TP/oneM2M/CSE/DMR/CRE/BV/018_04		8 (child resources)

## 5. CE/GEN/00002/00003

Support attribute addressing for Retrieve

### RETRIEVE OPERATION

TP/oneM2M/CSE/DMR/RET/BV/004

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BV/004	
<b>Test objective</b>	Check that the IUT returns successfully the ATTRIBUTE of TARGET_RESOURCE_ADDRESS resource ("To" option)	
<b>Reference</b>	TS-0001 10.1.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre> with {   the IUT <b>being</b> in the "initial state"   <b>and</b> the IUT <b>having registered</b> the AE   <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type   RESOURCE_TYPE under the AE resource   <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource   TARGET_RESOURCE_ADDRESS } </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when {   the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b>   To <b>set to</b> TARGET_ATTRIBUTE_ADDRESS <b>and</b>   From <b>set to</b> AE_ID } </pre>	IUT ← AE
	<pre> then {   the IUT <b>sends</b> a valid Response <b>containing</b>   Response Status Code <b>set to</b> 2000 (OK) <b>and</b>   Content <b>containing</b>   attributeList <b>containing</b>   valid ATTRIBUTE attribute } </pre>	IUT → AE
<p>Notes: TARGET_ATTRIBUTE_ADDRESS is represented as TARGET_RESOURCE_ADDRESS#ATTRIBUTE where '#' is present between TARGET_RESOURCE_ADDRESS and ATTRIBUTE.  ATTRIBUTE indicates common attribute for all RESOURCE_TYPE resources listed in the table below.</p>		

TP Id	Reference	RESOURCE_TYPE
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TP/oneM2M/CSE/DMR/RET/BV/004_01	TS-0001 10.2.4.2	3 (container)
TP/oneM2M/CSE/DMR/RET/BV/004_02	TS-0001 10.2.7.3	9 (group)
TP/oneM2M/CSE/DMR/RET/BV/004_03	TS-0001 10.2.21.2	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/RET/BV/004_04		18 (schedule)
TP/oneM2M/CSE/DMR/RET/BV/004_05	TS-0001 10.2.13.3	15 (pollingChannel)
TP/oneM2M/CSE/DMR/RET/BV/004_06	TS-0001 10.2.11.3	23 (subscription)

TP/oneM2M/CSE/DMR/RET/BV/005

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BV/005	
<b>Test objective</b>	Check that the IUT returns successfully the ATTRIBUTE of TARGET_RESOURCE_ADDRESS resource ("Content" option)	
<b>Reference</b>	TS-0001 10.1.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE under the AE resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> attributeList element <b>containing</b> ATTRIBUTE name <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> valid ATTRIBUTE attribute <b>}</b>	IUT → AE
Notes: ATTRIBUTE indicates common attribute for all RESOURCE_TYPE resources listed in the table below		

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/RET/BV/005_01	TS-0001 10.2.4.2	3 (container)
TP/oneM2M/CSE/DMR/RET/BV/005_02	TS-0001 10.2.7.3	9 (group)
TP/oneM2M/CSE/DMR/RET/BV/005_03	TS-0001 10.2.21.2	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/RET/BV/005_04		18 (schedule)
TP/oneM2M/CSE/DMR/RET/BV/005_05	TS-0001 10.2.13.3	15 (pollingChannel)
TP/oneM2M/CSE/DMR/RET/BV/005_06	TS-0001 10.2.11.3	23 (subscription)

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BV/006	
<b>Test objective</b>	Check that the IUT returns successfully multiple attributes of TARGET_RESOURCE_ADDRESS resource	
<b>Reference</b>	TS-0001 10.1.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE under the AE resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> attributeList element <b>containing</b> attribute <b>containing</b> ATTRIBUTE_1 name <b>and</b> ATTRIBUTE_2 name <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> valid ATTRIBUTE_1 attribute <b>and</b> valid ATTRIBUTE_2 attribute <b>}</b>	IUT → AE
Notes: ATTRIBUTE_1 indicates common attribute for all RESOURCE_TYPE resources listed in the table below ATTRIBUTE_2 indicates common attribute for all RESOURCE_TYPE resources listed in the table below		

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/RET/BV/006_01	TS-0001 10.2.4.2	3 (container)
TP/oneM2M/CSE/DMR/RET/BV/006_02	TS-0001 10.2.7.3	9 (group)
TP/oneM2M/CSE/DMR/RET/BV/006_03	TS-0001 10.2.21.2	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/RET/BV/006_04		18 (schedule)
TP/oneM2M/CSE/DMR/RET/BV/006_05	TS-0001 10.2.13.3	15 (pollingChannel)
TP/oneM2M/CSE/DMR/RET/BV/006_06	TS-0001 10.2.11.3	23 (subscription)

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BO/007
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<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to retrieve a non-existing attribute of the TARGET_RESOURCE_ADDRESS resource ("single" attribute case)	
<b>Reference</b>	TS-0001 10.1.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE under the AE resource <b>containing</b> no attribute ATTRIBUTE <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> attributeList element <b>containing</b> ATTRIBUTE name <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4004 (NOT_FOUND) <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE	ATTRIBUTE
TP/oneM2M/CSE/DMR/RET/BO/007_01	TS-0001 10.2.4.2	3 (container)	labels
TP/oneM2M/CSE/DMR/RET/BO/007_02	TS-0001 10.2.7.3	9 (group)	labels
TP/oneM2M/CSE/DMR/RET/BO/007_03	TS-0001 10.2.21.2	1 (accessControlPolicy)	labels
TP/oneM2M/CSE/DMR/RET/BO/007_04		18 (schedule)	labels
TP/oneM2M/CSE/DMR/RET/BO/007_05	TS-0001 10.2.13.3	15 (pollingChallenge)	labels
TP/oneM2M/CSE/DMR/RET/BO/007_06	TS-0001 10.2.11.3	23 (subscription)	labels

Editor Note: A common ATTRIBUTE has been chosen for all types of resource. A note could replace ATTRIBUTE column.



<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BO/008	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to retrieve a non-existing attributes of the TARGET_RESOURCE_ADDRESS resource ("multiple" attributes case)	
<b>Reference</b>	TS-0001 10.1.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE under the AE resource <b>containing</b> <b>no</b> ATTRIBUTE_1 attribute <b>and</b> <b>no</b> ATTRIBUTE_2 attribute <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> attributeList element <b>containing</b> ATTRIBUTE_1 name <b>and</b> ATTRIBUTE_2 name <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4004 (NOT_FOUND) <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE	ATTRIBUTE_1	ATTRIBUTE_2
TP/oneM2M/CSE/DMR/RET/BO/008_01	TS-0001 10.2.4.2	3 (container)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/008_02	TS-0001 10.2.7.3	9 (group)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/008_03	TS-0001 10.2.21.2	1 (accessControlPolicy)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/008_04		18 (schedule)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/008_05	TS-0001 10.2.13.3	15 (pollingChallenge)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/008_06	TS-0001 10.2.11.3	23 (subscription)	labels	announceTo

Editor Note: The references to the TS-0001 for the operations (CREATE, RETRIEVE) procedures of the resource type <schedule> have not been found. To check whether these procedures are missing or they have been added in newer versions (TS-0001 v1.12.0 as basis)

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BV/015	
<b>Test objective</b>	Check that the IUT returns successfully the ATTRIBUTE of TARGET_RESOURCE_ADDRESS resource ("To" option) under CSEBase	
<b>Reference</b>	TS-0001 10.1.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE under the CSEBase resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_ATTRIBUTE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> valid ATTRIBUTE attribute <b>}</b>	IUT → AE
Notes: TARGET_ATTRIBUTE_ADDRESS is represented as TARGET_RESOURCE_ADDRESS # ATTRIBUTE ATTRIBUTE indicates common attribute for all RESOURCE_TYPE resources listed in the table below		

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/RET/BV/015_01	TS-0001 10.2.21.2	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/RET/BV/015_02	TS-0001 10.2.1.2	2 (AE)
TP/oneM2M/CSE/DMR/RET/BV/015_03	TS-0001 10.2.4.2	3 (container)
TP/oneM2M/CSE/DMR/RET/BV/015_04	TS-0001 10.2.5.3	6 (delivery)
TP/oneM2M/CSE/DMR/RET/BV/015_05	TS-0001 10.2.7.3	9 (group)
TP/oneM2M/CSE/DMR/RET/BV/015_06	TS-0001 10.2.10.1.2	10 (locationPolicy)
TP/oneM2M/CSE/DMR/RET/BV/015_07	TS-0001 10.2.8.3	12 (mgmtCmd)
TP/oneM2M/CSE/DMR/RET/BV/015_08	TS-0001 10.2.14.2	14 (node)
TP/oneM2M/CSE/DMR/RET/BV/015_09	TS-0001 10.2.2.2	16 (remoteCSE)
TP/oneM2M/CSE/DMR/RET/BV/015_10	TS-0001 10.2.20.2	17 (request)
TP/oneM2M/CSE/DMR/RET/BV/015_11		18 (schedule)
TP/oneM2M/CSE/DMR/RET/BV/015_12	TS-0001 10.2.15.11	21 (statsCollect)
TP/oneM2M/CSE/DMR/RET/BV/015_13	TS-0001 10.2.15.3	22 (statsConfig)
TP/oneM2M/CSE/DMR/RET/BV/015_14	TS-0001 10.2.11.3	23 (subscription)

Editor's Note: Update the reference of schedule resource to TS-0001 9.6.9

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BV/016	
<b>Test objective</b>	Check that the IUT returns successfully the ATTRIBUTE of TARGET_RESOURCE_ADDRESS resource ("Content" option) under CSEBase	
<b>Reference</b>	TS-0001 10.1.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE under the CSEBase resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> attributeList element <b>containing</b> ATTRIBUTE name <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> valid ATTRIBUTE attribute <b>}</b>	IUT → AE
Notes: ATTRIBUTE indicates common attribute for all RESOURCE_TYPE resources listed in the table below		

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/RET/BV/016_01	TS-0001 10.2.21.2	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/RET/BV/016_02	TS-0001 10.2.1.2	2 (AE)
TP/oneM2M/CSE/DMR/RET/BV/016_03	TS-0001 10.2.4.2	3 (container)
TP/oneM2M/CSE/DMR/RET/BV/016_04	TS-0001 10.2.5.3	6 (delivery)
TP/oneM2M/CSE/DMR/RET/BV/016_05	TS-0001 10.2.7.3	9 (group)
TP/oneM2M/CSE/DMR/RET/BV/016_06	TS-0001 10.2.10.1.2	10 (locationPolicy)
TP/oneM2M/CSE/DMR/RET/BV/016_07	TS-0001 10.2.8.3	12 (mgmtCmd)
TP/oneM2M/CSE/DMR/RET/BV/016_08	TS-0001 10.2.14.2	14 (node)
TP/oneM2M/CSE/DMR/RET/BV/016_09	TS-0001 10.2.2.2	16 (remoteCSE)
TP/oneM2M/CSE/DMR/RET/BV/016_10	TS-0001 10.2.20.2	17 (request)
TP/oneM2M/CSE/DMR/RET/BV/016_11		18 (schedule)
TP/oneM2M/CSE/DMR/RET/BV/016_12	TS-0001 10.2.15.11	21 (statsCollect)
TP/oneM2M/CSE/DMR/RET/BV/016_13	TS-0001 10.2.15.3	22 (statsConfig)
TP/oneM2M/CSE/DMR/RET/BV/016_14	TS-0001 10.2.11.3	23 (subscription)

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BV/017	
<b>Test objective</b>	Check that the IUT returns successfully multiple attributes of TARGET_RESOURCE_ADDRESS resource under CSEBase	
<b>Reference</b>	TS-0001 10.1.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE under the CSEBase resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> attributeList element <b>containing</b> ATTRIBUTE_1 name <b>and</b> ATTRIBUTE_2 name <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> valid ATTRIBUTE_1 attribute <b>and</b> valid ATTRIBUTE_2 attribute <b>}</b>	IUT → AE
Notes: ATTRIBUTE_1 indicates common attribute for all RESOURCE_TYPE resources listed in the table below ATTRIBUTE_2 indicates common attribute for all RESOURCE_TYPE resources listed in the table below		

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/RET/BV/017_01	TS-0001 10.2.21.2	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/RET/BV/017_02	TS-0001 10.2.1.2	2 (AE)
TP/oneM2M/CSE/DMR/RET/BV/017_03	TS-0001 10.2.4.2	3 (container)
TP/oneM2M/CSE/DMR/RET/BV/017_04	TS-0001 10.2.5.3	6 (delivery)
TP/oneM2M/CSE/DMR/RET/BV/017_05	TS-0001 10.2.7.3	9 (group)
TP/oneM2M/CSE/DMR/RET/BV/017_06	TS-0001 10.2.10.1.2	10 (locationPolicy)
TP/oneM2M/CSE/DMR/RET/BV/017_07	TS-0001 10.2.8.3	12 (mgmtCmd)
TP/oneM2M/CSE/DMR/RET/BV/017_08	TS-0001 10.2.14.2	14 (node)
TP/oneM2M/CSE/DMR/RET/BV/017_09	TS-0001 10.2.2.2	16 (remoteCSE)
TP/oneM2M/CSE/DMR/RET/BV/017_10	TS-0001 10.2.20.2	17 (request)
TP/oneM2M/CSE/DMR/RET/BV/017_11		18 (schedule)

TP/oneM2M/CSE/DMR/RET/BV/017_12	TS-0001 10.2.15.11	21 (statsCollect)
TP/oneM2M/CSE/DMR/RET/BV/017_13	TS-0001 10.2.15.3	22 (statsConfig)
TP/oneM2M/CSE/DMR/RET/BV/017_14	TS-0001 10.2.11.3	23 (subscription)

TP/oneM2M/CSE/DMR/RET/BO/018

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BO/018	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to retrieve a non-existing attribute of the TARGET_RESOURCE_ADDRESS resource ("single" attribute case) under CSEBase	
<b>Reference</b>	TS-0001 10.1.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type <b>RESOURCE_TYPE</b> under the CSEBase resource <b>containing</b> <b>no</b> attribute <b>ATTRIBUTE</b> <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> attributeList element <b>containing</b> <b>ATTRIBUTE</b> name <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4004 (NOT_FOUND) <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE	ATTRIBUTE
TP/oneM2M/CSE/DMR/RET/BO/018_01	TS-0001 10.2.21.2	1 (accessControlPolicy)	labels
TP/oneM2M/CSE/DMR/RET/BO/018_02	TS-0001 10.2.1.2	2 (AE)	labels
TP/oneM2M/CSE/DMR/RET/BO/018_03	TS-0001 10.2.4.2	3 (container)	labels
TP/oneM2M/CSE/DMR/RET/BO/018_04	TS-0001 10.2.5.3	6 (delivery)	labels
TP/oneM2M/CSE/DMR/RET/BO/018_05	TS-0001 10.2.7.3	9 (group)	labels
TP/oneM2M/CSE/DMR/RET/BO/018_06	TS-0001 10.2.10.1.2	10 (locationPolicy)	labels
TP/oneM2M/CSE/DMR/RET/BO/018_07	TS-0001 10.2.8.3	12 (mgmtCmd)	labels
TP/oneM2M/CSE/DMR/RET/BO/018_08	TS-0001 10.2.14.2	14 (node)	labels
TP/oneM2M/CSE/DMR/RET/BO/018_09	TS-0001 10.2.2.2	16 (remoteCSE)	labels
TP/oneM2M/CSE/DMR/RET/BO/018_10	TS-0001 10.2.20.2	17 (request)	labels
TP/oneM2M/CSE/DMR/RET/BO/018_11		18 (schedule)	labels

TP/oneM2M/CSE/DMR/RET/BO/018_12	TS-0001 10.2.15.11	21 (statsCollect)	labels
TP/oneM2M/CSE/DMR/RET/BO/018_13	TS-0001 10.2.15.3	22 (statsConfig)	labels
TP/oneM2M/CSE/DMR/RET/BO/018_14	TS-0001 10.2.11.3	23 (subscription)	labels

TP/oneM2M/CSE/DMR/RET/BO/019

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BO/019		
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to retrieve a non-existing attribute of the TARGET_RESOURCE_ADDRESS resource ("multiple" attributes case) under CSEBase		
<b>Reference</b>	TS-0001 10.1.2		
<b>Config Id</b>	CF01		
<b>PICS Selection</b>	PICS_CSE		
<b>Initial conditions</b>	<p>with {  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE under the &lt;CSEBase&gt; resource <b>containing</b>  no ATTRIBUTE_1 attribute <b>and</b>  no ATTRIBUTE_2 attribute  <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS  }</p>		
<b>Expected behaviour</b>	<b>Test events</b>		<b>Direction</b>
	<p>when {  the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  From <b>set to</b> AE_ID <b>and</b>  Content <b>containing</b>  attributeList element <b>containing</b>  ATTRIBUTE_1 name  <b>and</b> ATTRIBUTE_2 name  }</p>		IUT ← AE
	<p>then {  the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> 4004 (NOT_FOUND)  }</p>		IUT → AE

TP Id	Reference	RESOURCE_TYPE	ATTRIBUTE_1	ATTRIBUTE_2
TP/oneM2M/CSE/DMR/RET/BO/019_01	TS-0001 10.2.21.2	1 (accessControlPolicy)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/019_02	TS-0001 10.2.1.2	2 (AE)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/019_03	TS-0001 10.2.4.2	3 (container)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/019_04	TS-0001 10.2.5.3	6 (delivery)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/019_05	TS-0001 10.2.7.3	9 (group)	labels	announceTo

TP/oneM2M/CSE/DMR/RET/BO/019_06	TS-0001 10.2.10.1.2	10 (locationPolicy)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/019_07	TS-0001 10.2.8.3	12 (mgmtCmd)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/019_08	TS-0001 10.2.14.2	14 (node)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/019_09	TS-0001 10.2.2.2	16 (remoteCSE)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/019_10	TS-0001 10.2.20.2	17 (request)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/019_11		18 (schedule)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/019_12	TS-0001 10.2.15.11	21 (statsCollect)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/019_13	TS-0001 10.2.15.3	22 (statsConfig)	labels	announceTo
TP/oneM2M/CSE/DMR/RET/BO/019_14	TS-0001 10.2.11.3	23 (subscription)	labels	announceTo

## UPDATE OPERATION

TP/oneM2M/CSE/DMR/UPD/BV/001

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BV/001	
<b>Test objective</b>	Check that the IUT updates successfully the value of the attribute <i>ATTRIBUTE_NAME</i> of the <i>TARGET_RESOURCE_ADDRESS</i> resource	
<b>Reference</b>	TS-0001 10.1.3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a resource <i>TARGET_RESOURCE_ADDRESS</i> of type <i>RESOURCE_TYPE</i> <b>containing</b>  a RW <i>ATTRIBUTE_NAME</i> attribute <b>set to</b> <i>VALUE_1</i>  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource <i>TARGET_RESOURCE_ADDRESS</i>  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> <i>TARGET_RESOURCE_ADDRESS</i> <b>and</b>  From <b>set to</b> <i>AE_ID</i> <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  valid <i>ATTRIBUTE_NAME</i> attribute <b>set to</b> <i>VALUE_2</i>  <b>}</b></p>	IUT ← AE

<pre> then {   the IUT <b>updates</b> the TARGET_RESOURCE_ADDRESS resource   <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b>   Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b>   Content <b>containing</b>   RESOURCE_TYPE resource <b>containing</b>   valid ATTRIBUTE_NAME attribute <b>set to</b> VALUE_2 } </pre>	IUT → AE
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TP Id	Reference	RESOURCE_TYPE	ATTRIBUTE_NAME
TP/oneM2M/CSE/DMR/UPD/BV/001_01	TS-0001 10.2.4.3	3 (container)	labels
TP/oneM2M/CSE/DMR/UPD/BV/001_02	TS-0001 10.2.7.4	9 (group)	labels
TP/oneM2M/CSE/DMR/UPD/BV/001_03	TS-0001 10.2.21.3	1 (accessControlPolicy)	labels
TP/oneM2M/CSE/DMR/UPD/BV/001_04		18 (schedule)	labels
TP/oneM2M/CSE/DMR/UPD/BV/001_05	TS-0001 10.2.13.4	15 (pollingChannel)	labels
TP/oneM2M/CSE/DMR/UPD/BV/001_06	TS-0001 10.2.11.4	23 (subscription)	labels

TP/oneM2M/CSE/DMR/UPD/BV/002

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BV/002	
<b>Test objective</b>	Check that the IUT adds successfully the attribute <i>ATTRIBUTE_NAME</i> to the TARGET_RESOURCE_ADDRESS resource	
<b>Reference</b>	TS-0001 10.1.3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre> with {   the IUT <b>being</b> in the "initial state"   <b>and</b> the IUT <b>having registered</b> the AE   <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type   RESOURCE_TYPE <b>containing</b>   no optional RW ATTRIBUTE_NAME attribute   <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource   TARGET_RESOURCE_ADDRESS } </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when {   the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>   To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>   From <b>set to</b> AE_ID <b>and</b>   Content <b>containing</b>   RESOURCE_TYPE resource <b>containing</b>   valid ATTRIBUTE_NAME attribute <b>set to</b> VALUE_1 } </pre>	IUT ← AE
	<pre> then {   the IUT <b>updates</b> the TARGET_RESOURCE_ADDRESS resource   <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b>   Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b>   Content <b>containing</b>   RESOURCE_TYPE resource <b>containing</b>   valid ATTRIBUTE_NAME attribute <b>set to</b> VALUE_1 } </pre>	IUT → AE



TP Id	Reference	RESOURCE_TYPE	ATTRIBUTE_NAME
TP/oneM2M/CSE/DMR/UPD/BV/002_01	TS-0001 10.2.4.3	3 (container)	labels
TP/oneM2M/CSE/DMR/UPD/BV/002_02	TS-0001 10.2.7.4	9 (group)	labels
TP/oneM2M/CSE/DMR/UPD/BV/002_03	TS-0001 10.2.21.3	1 (accessControlPolicy)	labels
TP/oneM2M/CSE/DMR/UPD/BV/002_04		18 (schedule)	labels
TP/oneM2M/CSE/DMR/UPD/BV/002_05	TS-0001 10.2.13.4	15 (pollingChannel)	labels
TP/oneM2M/CSE/DMR/UPD/BV/002_06	TS-0001 10.2.11.4	23 (subscription)	labels

TP/oneM2M/CSE/DMR/UPD/BV/003

TP Id	TP/oneM2M/CSE/DMR/UPD/BV/003		
<b>Test objective</b>	Check that the IUT deletes successfully the attribute <i>ATTRIBUTE_NAME</i> from the <i>TARGET_RESOURCE_ADDRESS</i> resource		
<b>Reference</b>	TS-0001 10.1.3		
<b>Config Id</b>	CF01		
<b>PICS Selection</b>	PICS_CSE		
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a resource <i>TARGET_RESOURCE_ADDRESS</i> of type <i>RESOURCE_TYPE</i> containing  an optional RW <i>ATTRIBUTE_NAME</i> attribute  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource <i>TARGET_RESOURCE_ADDRESS</i>  <b>}</b></p>		
<b>Expected behaviour</b>	<b>Test events</b>		<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request from AE containing  To <b>set to</b> <i>TARGET_RESOURCE_ADDRESS</i> <b>and</b>  From <b>set to</b> AE_ID <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  valid <i>ATTRIBUTE_NAME</i> attribute <b>set to</b> NULL  <b>}</b></p>		IUT ← AE
<p><b>then {</b>  the IUT <b>updates</b> the <i>TARGET_RESOURCE_ADDRESS</i> resource  <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  valid <i>ATTRIBUTE_NAME</i> attribute <b>set to</b> NULL  <b>}</b></p>		IUT → AE	

TP Id	Reference	RESOURCE_TYPE	ATTRIBUTE_NAME
TP/oneM2M/CSE/DMR/UPD/BV/003_01	TS-0001 10.2.4.3	3 (container)	labels
TP/oneM2M/CSE/DMR/UPD/BV/003_02	TS-0001 10.2.7.4	9 (group)	labels
TP/oneM2M/CSE/DMR/UPD/BV/003_03	TS-0001 10.2.21.3	1 (accessControlPolicy)	labels
TP/oneM2M/CSE/DMR/UPD/BV/003_04		18 (schedule)	labels
TP/oneM2M/CSE/DMR/UPD/BV/003_05	TS-0001 10.2.13.4	15 (pollingChannel)	labels
TP/oneM2M/CSE/DMR/UPD/BV/003_06	TS-0001 10.2.11.4	23 (subscription)	labels

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BV/004	
<b>Test objective</b>	Check that the IUT updates the value of the attribute <i>ATTRIBUTE_NAME_1</i> , and creates the <i>ATTRIBUTE_NAME_2</i> and deletes the <i>ATTRIBUTE_NAME_3</i> of the <i>TARGET_RESOURCE_ADDRESS</i> resource	
<b>Reference</b>	TS-0001 10.1.3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a resource <i>TARGET_RESOURCE_ADDRESS</i> of type <i>RESOURCE_TYPE</i> <b>containing</b>  a RW <i>ATTRIBUTE_NAME_1</i> attribute <b>set to</b> <i>VALUE_1</i> <b>and</b>  <b>no</b> optional RW <i>ATTRIBUTE_NAME_2</i> attribute <b>and</b>  an optional RW <i>ATTRIBUTE_NAME_3</i> attribute  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource <i>TARGET_RESOURCE_ADDRESS</i>  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> <i>TARGET_RESOURCE_ADDRESS</i> <b>and</b>  From <b>set to</b> <i>AE_ID</i> <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  valid <i>ATTRIBUTE_NAME_1</i> attribute <b>set to</b> <i>VALUE_2</i> <b>and</b>  valid <i>ATTRIBUTE_NAME_2</i> attribute <b>set to</b> <i>VALUE_3</i> <b>and</b>  valid <i>ATTRIBUTE_NAME_3</i> attribute <b>set to</b> NULL  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  the IUT <b>updates</b> the <i>TARGET_RESOURCE_ADDRESS</i> resource  <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  valid <i>ATTRIBUTE_NAME_1</i> attribute <b>set to</b> <i>VALUE_2</i> <b>and</b>  valid <i>ATTRIBUTE_NAME_2</i> attribute <b>set to</b> <i>VALUE_3</i> <b>and</b>  valid <i>ATTRIBUTE_NAME_3</i> attribute <b>set to</b> NULL  <b>}</b></p>	IUT → AE

TP Id	Reference	RESOURCE_T YPE	ATTRIBUTE_N AME_1	ATTRIBUTE_N AME_2	ATTRIBUTE_N AME_3
TP/oneM2M/CSE/DMR/ UPD/BV/004_01	TS-0001 10.2.4.3	3 (container)	expirationTime	maxNrOfInstan ces	labels
TP/oneM2M/CSE/DMR/ UPD/BV/004_02	TS-0001 10.2.7.4	9 (group)	expirationTime	groupName	labels
TP/oneM2M/CSE/DMR/ UPD/BV/004_03	TS-0001 10.2.21.3	1 (accessControl Policy)	privileges	announceTo-	labels-
TP/oneM2M/CSE/DMR/ UPD/BV/004_04		18 (schedule)	scheduleEleme nt	announceTo-	labels
TP/oneM2M/CSE/DMR/ UPD/BV/004_05	TS-0001 10.2.13.4	15 (pollingChanne l)	labels-	accessControl PolicyIDs	labels
TP/oneM2M/CSE/DMR/ UPD/BV/004_06	TS-0001 10.2.11.4	23 (subscription)	expirationTime	labels	expirationCoun ter

TP/oneM2M/CSE/DMR/UPD/BI/005

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BI/005	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to update an attribute of a TARGET_RESOURCE_ADDRESS resource which does not exist	
<b>Reference</b>	TS-0001 10.1.3 – item 15)	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>not having created</b> a resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> valid ATTRIBUTE_NAME attribute <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4004 (NOT_FOUND) <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE	ATTRIBUTE_NAME
TP/oneM2M/CSE/DMR/UPD/BO/005_01	TS-0001 10.2.4.3	3 (container)	expirationCounter
TP/oneM2M/CSE/DMR/UPD/BO/005_02	TS-0001 10.2.7.4	9 (group)	expirationCounter
TP/oneM2M/CSE/DMR/UPD/BO/005_03	TS-0001 10.2.21.3	1 (accessControlPolicy)	expirationCounter
TP/oneM2M/CSE/DMR/UPD/BO/005_04		18 (schedule)	expirationCounterlabels
TP/oneM2M/CSE/DMR/UPD/BO/005_05	TS-0001 10.2.13.4	15 (pollingChannel)	expirationCounter
TP/oneM2M/CSE/DMR/UPD/BO/005_06	TS-0001 10.2.11.4	23 (subscription)	labelsmaxNrOfInstance

Note: Attribute name *expirationCounterlabels*, *labelsmaxNrOfInstance* are used as invalid attribute name to test IUT.

TP/oneM2M/CSE/DMR/UPD/BO/006

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BO/006	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to update the attribute ATTRIBUTE_NAME of a TARGET_RESOURCE_ADDRESS resource without having privileges for the UPDATE operation	
<b>Reference</b>	TS-0001 10.1.3 – 16)	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type <b>RESOURCE_TYPE containing</b> a RW <b>ATTRIBUTE_NAME</b> attribute <b>set to</b> VALUE_1 <b>and</b> the AE <b>having no</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> <b>RESOURCE_TYPE</b> resource <b>containing</b> valid <b>ATTRIBUTE_NAME set to</b> VALUE_2 <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not update</b> the TARGET_RESOURCE_ADDRESS resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4103 (ACCESS_DENIED) <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE	ATTRIBUTE_NAME
TP/oneM2M/CSE/DMR/UPD/BO/006_01	TS-0001 10.2.4.3	3 (container)	labels
TP/oneM2M/CSE/DMR/UPD/BO/006_02	TS-0001 10.2.7.4	9 (group)	labels
TP/oneM2M/CSE/DMR/UPD/BO/006_03	TS-0001 10.2.21.3	1 (accessControlPolicy)	labels
TP/oneM2M/CSE/DMR/UPD/BO/006_04		18 (schedule)	labels
TP/oneM2M/CSE/DMR/UPD/BO/006_05	TS-0001 10.2.13.4	15 (pollingChannel)	labels
TP/oneM2M/CSE/DMR/UPD/BO/006_06	TS-0001 10.2.11.4	23 (subscription)	labels

TP/oneM2M/CSE/DMR/UPD/BO/007

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BO/007	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to update a non-RW attribute <b>ATTRIBUTE_NAME</b> of a <b>TARGET_RESOURCE_ADDRESS</b> resource	
<b>Reference</b>	TS-0001 10.1.3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type <b>RESOURCE_TYPE containing</b> a non-RW <b>ATTRIBUTE_NAME</b> attribute <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request from AE containing To <b>set to</b> TARGET_RESOURCE_ADDRESS and From <b>set to</b> AE_ID and Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> valid ATTRIBUTE_NAME attribute <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not update</b> the TARGET_RESOURCE_ADDRESS resource <b>and</b> the IUT <b>sends</b> a Response <b>containing</b> Response Status Code <b>set to</b> 4000 (BAD_REQUEST) <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE	ATTRIBUTE_NAME
TP/oneM2M/CSE/DMR/UPD/BO/007_01	TS-0001 10.2.4.3	3 (container)	creationTime
TP/oneM2M/CSE/DMR/UPD/BO/007_02	TS-0001 10.2.7.4	9 (group)	creationTime
TP/oneM2M/CSE/DMR/UPD/BO/007_03	TS-0001 10.2.21.3	1 (accessControlPolicy)	creationTime
TP/oneM2M/CSE/DMR/UPD/BO/007_04		18 (schedule)	creationTime
TP/oneM2M/CSE/DMR/UPD/BO/007_05	TS-0001 10.2.13.4	15 (pollingChannel)	creationTime
TP/oneM2M/CSE/DMR/UPD/BO/007_06	TS-0001 10.2.11.4	23 (subscription)	creationTime

TP/oneM2M/CSE/DMR/UPD/BO/008

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BO/008	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to delete a mandatory RW attribute ATTRIBUTE_NAME of a TARGET_RESOURCE_ADDRESS resource	
<b>Reference</b>	TS-0001 10.1.3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE <b>containing</b> a mandatory RW ATTRIBUTE_NAME attribute <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request from AE containing To <b>set to</b> TARGET_RESOURCE_ADDRESS and From <b>set to</b> AE_ID and Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> valid ATTRIBUTE_NAME attribute <b>set to</b> NULL <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not update</b> the TARGET_RESOURCE_ADDRESS resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4000 (BAD_REQUEST) <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE	ATTRIBUTE_NAME
TP/oneM2M/CSE/DMR/UPD/BO/008_01	TS-0001 10.2.4.3	3 (container)	expirationTime
TP/oneM2M/CSE/DMR/UPD/BO/008_02	TS-0001 10.2.7.4	9 (group)	expirationTime
TP/oneM2M/CSE/DMR/UPD/BO/008_03	TS-0001 10.2.21.3	1 (accessControlPolicy)	expirationTime
TP/oneM2M/CSE/DMR/UPD/BO/008_04		18 (schedule)	expirationTime
TP/oneM2M/CSE/DMR/UPD/BO/008_05	TS-0001 10.2.13.4	15 (pollingChannel)	expirationTime
TP/oneM2M/CSE/DMR/UPD/BO/008_06	TS-0001 10.2.11.4	23 (subscription)	expirationTime

TP/oneM2M/CSE/DMR/UPD/BO/009

TP Id	TP/oneM2M/CSE/DMR/UPD/BO/009		
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to update a RW attribute <i>ATTRIBUTE_NAME</i> of the <i>TARGET_RESOURCE_ADDRESS</i> resource with an <i>UNACCEPTABLE_VALUE</i>		
<b>Reference</b>	TS-0001 10.1.3 – item 17)		
<b>Config Id</b>	CF01		
<b>PICS Selection</b>	PICS_CSE		
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a resource <i>TARGET_RESOURCE_ADDRESS</i> of type <i>RESOURCE_TYPE</i> <b>containing</b>  a valid RW <i>ATTRIBUTE_NAME</i> attribute  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource <i>TARGET_RESOURCE_ADDRESS</i>  <b>}</b></p>		
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>	
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request <b>from AE containing</b>  To <b>set to</b> <i>TARGET_RESOURCE_ADDRESS</i> <b>and</b>  From <b>set to</b> <i>AE_ID</i> <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  valid <i>ATTRIBUTE_NAME</i> attribute <b>set to</b>  <i>UNACCEPTABLE_VALUE</i>  <b>}</b></p>	IUT ← AE	
	<p><b>then {</b>  the IUT <b>does not update</b> the <i>TARGET_RESOURCE_ADDRESS</i> resource  <b>and</b> the IUT <b>sends</b> a Response <b>containing</b>  Response Status Code <b>set to</b> 4102 (CONTENTS_UNACCEPTABLE)  <b>}</b></p>	IUT → AE	

TP Id	Reference	RESOURCE_TYPE	ATTRIBUTE_NAME
TP/oneM2M/CSE/DMR/UPD/BO/009_01	TS-0001 10.2.4.3	3 (container)	labels
TP/oneM2M/CSE/DMR/UPD/BO/009_02	TS-0001 10.2.7.4	9 (group)	labels

TP/oneM2M/CSE/DMR/UPD/BO/009_03	TS-0001 10.2.21.3	1 (accessControlPolicy)	labels
TP/oneM2M/CSE/DMR/UPD/BO/009_04		18 (schedule)	labels
TP/oneM2M/CSE/DMR/UPD/BO/009_05	TS-0001 10.2.13.4	15 (pollingChannel)	labels
TP/oneM2M/CSE/DMR/UPD/BO/009_06	TS-0001 10.2.11.4	23 (subscription)	labels

## 2. Registration (REG)

### 1. CE/REG/00001/00001

Support <CSEBase> resource with attributes multiplicity equals 1.

#### CREATE OPERATION

TP/oneM2M/CSE/REG/CRE/BI/001

<b>TP Id</b>	TP/oneM2M/CSE/REG/UPD/BI/001	
<b>Test objective</b>	Check that the IUT rejects the create request of <CSEBase> resource.	
<b>Reference</b>	TS-0001 10.2.3.2, TS-0001 9.6.3, TS-0004 7.4.3.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> CSEBASE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4005 (OPERATION_NOT_ALLOWED) <b>}</b>	IUT → AE

#### RETRIEVE OPERATION

TP/oneM2M/CSE/REG/RET/BV/001

<b>TP Id</b>	TP/oneM2M/CSE/REG/RET/BV/001
<b>Test objective</b>	Check that the IUT accepts an retrieval request of <CSEBase> resource with attributes multiplicity equals to 1.
<b>Reference</b>	TS-0001 10.2.3.2, TS-0001 9.6.3, TS-0004 7.4.3.2.2
<b>Config Id</b>	CF01
<b>PICS Selection</b>	PICS_CSE



<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the CSEBase resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> CSEBASE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> CSEBase resource representation <b>}</b>	IUT → AE

TP/oneM2M/CSE/REG/RET/BV/005

<b>TP Id</b>	TP/oneM2M/CSE/REG/RET/BV/005	
<b>Test objective</b>	Check that if the IUT is IN-CSE, it accepts an retrieval request of <CSEBase> resource and returns the cseType attribute. cseType Attribute is mandatory for IN-CSE	
<b>Reference</b>	TS-0001 10.2.3.2, TS-0001 9.6.3, TS-0004 7.4.3.2.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_IN_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the CSEBase resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> CSEBASE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> CSEBase resource <b>containing</b> cseType attribute set to 1 (IN_CSE) <b>}</b>	IUT → AE

UPDATE OPERATION

TP/oneM2M/CSE/REG/UPD/BI/001

<b>TP Id</b>	TP/oneM2M/CSE/REG/UPD/BI/001	
<b>Test objective</b>	Check that the IUT rejects the update request of <CSEBase> resource.	
<b>Reference</b>	TS-0001 10.2.3.2, TS-0001 9.6.3, TS-0004 7.4.3.2.3	
<b>Config Id</b>	CF01	

<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	with { the IUT <b>being</b> in the "initial state" and the IUT <b>having registered</b> the AE }	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	when { the IUT <b>receives</b> a valid UPDATE Request <b>from AE containing</b> To <b>set to</b> CSEBASE_RESOURCE_ADDRESS and From <b>set to</b> AE_ID and Content <b>containing</b> CONTENT }	IUT ← AE
	then { the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4005 (OPERATION_NOT_ALLOWED) }	IUT → AE

## DELETE OPERATION

TP/oneM2M/CSE/REG/DEL/BI/001

<b>TP Id</b>	TP/oneM2M/CSE/REG/DEL/BI/001	
<b>Test objective</b>	Check that the IUT rejects the delete request of <CSEBase> resource.	
<b>Reference</b>	TS-0001 10.2.3.2, TS-0001 9.6.3, TS-0004 7.4.3.2.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	with { the IUT <b>being</b> in the "initial state" and the IUT <b>having registered</b> the AE }	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	when { the IUT <b>receives</b> a valid DELETE Request <b>from AE containing</b> To <b>set to</b> CSEBASE_RESOURCE_ADDRESS and From <b>set to</b> AE_ID }	IUT ← AE
	then { the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4005 (OPERATION_NOT_ALLOWED) }	IUT → AE

## 2. CE/REG/00001/00002

Support the *cseType* attribute of <CSEBase> resource

## RETRIEVE OPERATION

TP/oneM2M/CSE/REG/RET/BV/002

<b>TP Id</b>	TP/oneM2M/CSE/REG/RET/BV/002	
<b>Test objective</b>	Check that the IUT accepts an retrieval request of <CSEBase> resource with the optional <i>ATTRIBUTE</i> .	
<b>Reference</b>	TS-0001 10.2.3.2, TS-0001 9.6.3, TS-0004 7.4.3.2.2	

<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the CSEBase resource <b>and</b> the IUT <b>having</b> a CSEBase resource <b>containing</b> the valid <i>ATTRIBUTE</i> attribute <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> CSEBASE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> CSEBase resource <b>containing</b> valid <i>ATTRIBUTE</i> attribute <b>}</b>	IUT → AE

TP Id	Reference	ATTRIBUTE
TP/oneM2M/CSE/REG/RET/BV/002_01	TS-0001 9.6.3	cseType
TP/oneM2M/CSE/REG/RET/BV/002_02	TS-0001 9.6.3	nodeLink

TP/oneM2M/CSE/REG/RET/BV/002\_01

### 3. CE/REG/00001/00003

Support the *nodeLink* attribute of <CSEBase> resource. This is dependent on the feature set for <node> resource.

TP/oneM2M/CSE/REG/RET/BV/002\_02

### 4. CE/REG/00002/00001

Support <AE> resource with attributes multiplicity equals 1[1]

## RETRIEVE OPERATION

TP/oneM2M/CSE/REG/RET/BV/003

<b>TP Id</b>	TP/oneM2M/CSE/REG/RET/BV/003
<b>Test objective</b>	Check that the IUT accepts an retrieval request of <AE> resource with attributes multiplicity equals to 1.
<b>Reference</b>	TS-0001 10.2.1.2, TS-0001 9.6.5, TS-0004 7.4.5.2.2
<b>Config Id</b>	CF01
<b>PICS Selection</b>	PICS_CSE

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the AE resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> AE resource representation <b>}</b>	IUT → AE

TP/oneM2M/CSE/DMR/RET/BV/013\_02

TP/oneM2M/CSE/DMR/RET/BV/013

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BV/013	
<b>Test objective</b>	Check that the IUT returns successfully the TARGET_RESOURCE_ADDRESS resource under CSEBase	
<b>Reference</b>	TS-0001 10.1.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE under the CSEBase resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource representation <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/RET/BV/013_01	TS-0001 10.2.21.2	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/RET/BV/013_02	TS-0001 10.2.1.2	2 (AE)
TP/oneM2M/CSE/DMR/RET/BV/013_03	TS-0001 10.2.4.2	3 (container)

TP/oneM2M/CSE/DMR/RET/BV/013_04	TS-0001 10.2.5.3	6 (delivery)
TP/oneM2M/CSE/DMR/RET/BV/013_05	TS-0001 10.2.7.3	9 (group)
TP/oneM2M/CSE/DMR/RET/BV/013_06	TS-0001 10.2.10.1.2	10 (locationPolicy)
TP/oneM2M/CSE/DMR/RET/BV/013_07	TS-0001 10.2.8.3	12 (mgmtCmd)
TP/oneM2M/CSE/DMR/RET/BV/013_08	TS-0001 10.2.14.2	14 (node)
TP/oneM2M/CSE/DMR/RET/BV/013_09	TS-0001 10.2.2.2	16 (remoteCSE)
TP/oneM2M/CSE/DMR/RET/BV/013_10	TS-0001 10.2.20.2	17 (request)
TP/oneM2M/CSE/DMR/RET/BV/013_11		18 (schedule)
TP/oneM2M/CSE/DMR/RET/BV/013_12	TS-0001 10.2.15.11	21 (statsCollect)
TP/oneM2M/CSE/DMR/RET/BV/013_13	TS-0001 10.2.15.3	22 (statsConfig)
TP/oneM2M/CSE/DMR/RET/BV/013_14	TS-0001 10.2.11.3	23 (subscription)

#### UPDATE OPERATION

TP/oneM2M/CSE/DMR/UPD/BV/018\_05

TP/oneM2M/CSE/DMR/UPD/BV/018\_06

TP/oneM2M/CSE/DMR/UPD/BV/017

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BV/017	
<b>Test objective</b>	Check that the IUT updates successfully the value of the optional attribute <i>OPTIONAL_ATTRIBUTE</i> of the <i>RESOURCE_TYPE</i> resource under CSEBase	
<b>Reference</b>	TS-0001 10.1.3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE, PICS_IN_PROFILE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource <i>TARGET_RESOURCE_ADDRESS</i> of type <i>RESOURCE_TYPE</i> under the CSEBase resource <b>containing</b> <b>no</b> <i>OPTIONAL_ATTRIBUTE</i> attribute <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource <i>TARGET_RESOURCE_ADDRESS</i> <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from AE containing</b> To <b>set to</b> <i>TARGET_RESOURCE_ADDRESS</i> <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> <i>OPTIONAL_ATTRIBUTE</i> attribute <b>set to</b> VALUE <b>}</b>	IUT ← AE

<pre> then {   the IUT <b>updates</b> the <i>RESOURCE_TYPE</i> resource   and the IUT <b>sends</b> a valid Response <b>containing</b>   Response Status Code <b>set to</b> 2004 (UPDATED) and   Content <b>containing</b>   <i>RESOURCE_TYPE</i> resource <b>containing</b>   <i>OPTIONAL_ATTRIBUTE</i> attribute <b>set to</b> VALUE } </pre>	IUT → AE
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TP Id	Reference	OPTIONAL_ATTRIBUTE	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/UPD/BV/017_01	TS-0001 9.6.4-2	labels	remoteCSE
TP/oneM2M/CSE/DMR/UPD/BV/017_02	TS-0001 9.6.4-2	pointOfAccess	remoteCSE
TP/oneM2M/CSE/DMR/UPD/BV/017_03	TS-0001 9.6.4-2	nodeLink	remoteCSE
TP/oneM2M/CSE/DMR/UPD/BV/017_04	TS-0001 9.6.18-2	labels	node
TP/oneM2M/CSE/DMR/UPD/BV/017_05	TS-0001 9.6.18-2	accessControlPolicyIDs	node
TP/oneM2M/CSE/DMR/UPD/BV/017_06	TS-0001 9.6.18-2	hostedCSELink	node
TP/oneM2M/CSE/DMR/UPD/BV/017_07	TS-0001 9.6.5-2	labels	AE
TP/oneM2M/CSE/DMR/UPD/BV/017_08	TS-0001 9.6.5-2	accessControlPolicyIDs	AE
TP/oneM2M/CSE/DMR/UPD/BV/017_09	TS-0001 9.6.5-2	AppName	AE
TP/oneM2M/CSE/DMR/UPD/BV/017_10	TS-0001 9.6.5-2	pointOfAccess	AE
TP/oneM2M/CSE/DMR/UPD/BV/017_11	TS-0001 9.6.5-2	ontologyRef	AE
TP/oneM2M/CSE/DMR/UPD/BV/017_12	TS-0001 9.6.6-2	labels	container
TP/oneM2M/CSE/DMR/UPD/BV/017_13	TS-0001 9.6.6-2	accessControlPolicyIDs	container
TP/oneM2M/CSE/DMR/UPD/BV/017_14	TS-0001 9.6.6-2	maxNrOfInstances	container
TP/oneM2M/CSE/DMR/UPD/BV/017_15	TS-0001 9.6.6-2	maxByteSize	container
TP/oneM2M/CSE/DMR/UPD/BV/017_16	TS-0001 9.6.6-2	maxInstanceAge	container
TP/oneM2M/CSE/DMR/UPD/BV/017_17	TS-0001 9.6.6-2	ontologyRef	container
TP/oneM2M/CSE/DMR/UPD/BV/017_18	TS-0001 9.6.6-2	locationID	container
TP/oneM2M/CSE/DMR/UPD/BV/017_19	TS-0001 9.6.2-2	labels	accessControlPolicy
TP/oneM2M/CSE/DMR/UPD/BV/017_20	TS-0001 9.6.8-2	accessControlPolicyIDs	subscription
TP/oneM2M/CSE/DMR/UPD/BV/017_21	TS-0001 9.6.8-2	labels	subscription
TP/oneM2M/CSE/DMR/UPD/BV/017_22	TS-0001 9.6.8-2	eventNotificationCriteria	subscription
TP/oneM2M/CSE/DMR/UPD/BV/017_23	TS-0001 9.6.8-2	expirationCounter	subscription
TP/oneM2M/CSE/DMR/UPD/BV/017_24	TS-0001 9.6.8-2	groupID	subscription
TP/oneM2M/CSE/DMR/UPD/BV/017_25	TS-0001 9.6.8-2	notificationForwardingURI	subscription
TP/oneM2M/CSE/DMR/UPD/BV/017_26	TS-0001 9.6.8-2	batchNotify	subscription
TP/oneM2M/CSE/DMR/UPD/BV/017_27	TS-0001 9.6.8-2	rateLimit	subscription
TP/oneM2M/CSE/DMR/UPD/BV/017_28	TS-0001 9.6.8-2	pendingNotification	subscription
TP/oneM2M/CSE/DMR/UPD/BV/017_29	TS-0001 9.6.8-2	notificationStoragePriority	subscription
TP/oneM2M/CSE/DMR/UPD/BV/017_30	TS-0001 9.6.8-2	latestNotify	subscription

TP Id	Reference	OPTIONAL_ATTRIBUTE	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/UPD/BV/017_31	TS-0001 9.6.8-2	pendingNotification	subscription
TP/oneM2M/CSE/DMR/UPD/BV/017_32	TS-0001 9.6.8-2	notificationEventCat	Subscription
TP/oneM2M/CSE/DMR/UPD/BV/017_33	TS-0001 9.6.13-2	labels	group
TP/oneM2M/CSE/DMR/UPD/BV/017_34	TS-0001 9.6.13-2	accessControlPolicyIDs	group
TP/oneM2M/CSE/DMR/UPD/BV/017_35	TS-0001 9.6.13-2	membersAccessControlPolicyIDs	group
TP/oneM2M/CSE/DMR/UPD/BV/017_36	TS-0001 9.6.13-2	groupName	group

TP/oneM2M/CSE/DMR/UPD/BV/018

TP Id	TP/oneM2M/CSE/DMR/UPD/BV/018		
<b>Test objective</b>	Check that the IUT updates successfully the value of the optional attribute <i>MANDATORY_ATTRIBUTE</i> of the <i>RESOURCE_TYPE</i> resource under CSEBase		
<b>Reference</b>	TS-0001 10.1.3		
<b>Config Id</b>	CF01		
<b>PICS Selection</b>	PICS_CSE, PICS_IN_PROFILE		
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a resource <i>TARGET_RESOURCE_ADDRESS</i> of type <i>RESOURCE_TYPE</i> under the CSEBase resource  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource <i>TARGET_RESOURCE_ADDRESS</i>  <b>}</b></p>		
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>	
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> <i>TARGET_RESOURCE_ADDRESS</i> <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  <i>MANDATORY_ATTRIBUTE</i> attribute <b>set to</b> VALUE  <b>}</b></p>	IUT ← AE	
	<p><b>then {</b>  the IUT <b>updates</b> the <i>RESOURCE_TYPE</i> resource  <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  <i>MANDATORY_ATTRIBUTE</i> attribute <b>set to</b> VALUE  <b>}</b></p>	IUT → AE	

TP Id	Reference	MANDATORY_ATTRIBUTE	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/UPD/BV/018_01	TS-0001 9.6.4-2	expirationTime	remoteCSE
TP/oneM2M/CSE/DMR/UPD/BV/018_02	TS-0001 9.6.4-2	requestReachability	remoteCSE
TP/oneM2M/CSE/DMR/UPD/BV/018_03	TS-0001 9.6.18-2	expirationTime	node
TP/oneM2M/CSE/DMR/UPD/BV/018_04	TS-0001 9.6.18-2	nodeID	node

TP Id	Reference	MANDATORY_ATTRIBUTE	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/UPD/BV/018_05	TS-0001 9.6.5-2	expirationTime	AE
TP/oneM2M/CSE/DMR/UPD/BV/018_06	TS-0001 9.6.5-2	requestReachability	AE
TP/oneM2M/CSE/DMR/UPD/BV/018_07	TS-0001 9.6.6-2	expirationTime	container
TP/oneM2M/CSE/DMR/UPD/BV/018_08	TS-0001 9.6.2-2	expirationTime	accessControlPolicy
TP/oneM2M/CSE/DMR/UPD/BV/018_09	TS-0001 9.6.2-2	privileges	accessControlPolicy
TP/oneM2M/CSE/DMR/UPD/BV/018_10	TS-0001 9.6.2-2	selfPrivileges	accessControlPolicy
TP/oneM2M/CSE/DMR/UPD/BV/018_11	TS-0001 9.6.8-2	expirationTime	subscription
TP/oneM2M/CSE/DMR/UPD/BV/018_12	TS-0001 9.6.8-2	notificationURI	subscription
TP/oneM2M/CSE/DMR/UPD/BV/018_13	TS-0001 9.6.8-2	notificationContentType	subscription
TP/oneM2M/CSE/DMR/UPD/BV/018_14	TS-0001 9.6.13-2	expirationTime	group
TP/oneM2M/CSE/DMR/UPD/BV/018_15	TS-0001 9.6.13-2	maxNrOfMembers	group
TP/oneM2M/CSE/DMR/UPD/BV/018_16	TS-0001 9.6.13-2	memberIDs	group

## CREATE OPERATION

TP/oneM2M/CSE/DMR/CRE/BV/002

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/002	
<b>Test objective</b>	Check that the IUT accepts the creation of a <i>RESOURCE_TYPE</i> resource with a non-existing resource name provided by AE	
<b>Reference</b>	TS-0001 10.1.1.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p>with {  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS  <b>and</b> the AE <b>containing</b>  no child resource <b>containing</b>  resourceName attribute <b>set to</b> NAME  }</p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p>when {  the IUT <b>receives</b> a valid CREATE Request from AE <b>containing</b>  To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b>  Resource Type <b>set to</b> RESOURCE_TYPE <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Content <b>containing</b>  RESOURCE_TYPE resource <b>containing</b>  resourceName attribute <b>set to</b> NAME  }</p>	IUT ← AE
	<p>then {  the IUT <b>creates</b> the RESOURCE_TYPE resource  <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> 2001 (CREATED)  }</p>	IUT → AE



TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/CRE/BV/002_01	TS-0001 10.2.4.1	3 (container)
TP/oneM2M/CSE/DMR/CRE/BV/002_02	TS-0001 10.2.7.2	9 (group)
TP/oneM2M/CSE/DMR/CRE/BV/002_03	TS-0001 10.2.21.1	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/CRE/BV/002_04		18 (schedule)
TP/oneM2M/CSE/DMR/CRE/BV/002_05	TS-0001 10.2.13.2	15 (pollingChannel)
TP/oneM2M/CSE/SUB/BV/001	TS-0001 10.2.11.2	23 (subscription)

TP/oneM2M/CSE/REG/BV/007

TP Id	TP/oneM2M/CSE/REG/BV/007	
<b>Test objective</b>	Check that the IUT rejects registration of already registered AE (C-AE-ID-STEM provided by AE)	
<b>Reference</b>	TS-0001 10.1.1.2.2 – step 4, 9.6.19	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>with</b> a AE-ID resource <b>set to</b> C-AE-ID-STEM <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> Resource Type <b>set to</b> 2 (AE) <b>and</b> To <b>set to</b> TARGE_CSE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> C-AE-ID-STEM <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the AE resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4105 (CONFLICT) <b>}</b>	IUT → AE

TP/oneM2M/CSE/REG/CRE/BI/010

TP Id	TP/oneM2M/CSE/REG/CRE/BI/010	
<b>Test objective</b>	Check that the IUT rejects an create request of <AE> resource that doesn't include the <i>MANDATORY_ATTRIBUTE</i> .	
<b>Reference</b>	TS-0001 10.1.1.2.2, TS-0004 7.4.5.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> preconfigured AE_ID_stem <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to CSEBASE_RESOURCE_ADDRESS and</b> From <b>set to AE_ID and</b> Resource Type <b>set to 2(AE) and</b> Content <b>containing</b> AE resource <b>containing</b> no <b>MANDATORY_ATTRIBUTE</b> attribute <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to 4000 (BAD Request)</b> <b>}</b>	IUT → AE

TP Id	Reference	ATTRIBUTE
TP/oneM2M/CSE/REG/CRE/BI /010_01	TS-0001 9.6.5	App-ID
TP/oneM2M/CSE/REG/CRE/BI /010_02	TS-0001 9.6.5	requestReachability

## DELETE OPERATION

TP/oneM2M/CSE/REG/BV/006

<b>TP Id</b>	TP/oneM2M/CSE/REG/BV/006	
<b>Test objective</b>	Check that the IUT accepts an AE deregistration.	
<b>Reference</b>	TS-0001 10.1.4.2.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform DELETE operation on the resource AE <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid DELETE Request <b>from AE containing</b> To <b>set to AE_RESOURCE_ADDRESS and</b> From <b>set to AE_ID</b> <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>deletes</b> the AE_RESOURCE_ADDRESS resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to 2002 (DELETED)</b> <b>}</b>	IUT → AE

## 5. CE/REG/00002/00002

Editor's Note: AE registration without pre-assigned AE-ID in the registration request. Possible cases are:

- The request includes AE-ID Stem as 'C'.
- The request includes AE-ID Stem as 'S'.
- The request does not include AE-ID Stem

<b>TP Id</b>	TP/oneM2M/CSE/REG/BV/001	
<b>Test objective</b>	Check that the IUT accepts an AE registration (allowed App-ID, C-AE-ID-STEM not provided by AE)	
<b>Reference</b>	TS-0001 10.1.1.2.2 - case C, 9.6.19	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>              the IUT <b>being</b> in the "initial state"              <b>and</b> the IUT <b>having</b> a CSEBase resource <b>containing</b>                  a ServiceSubscribedProfile resource <b>containing</b>                  a serviceSubscribedNode resource <b>containing</b>                      ruleLinks attribute <b>pointing to</b>                          a serviceSubscribedAppRule resource <b>containing</b>                              applicableCredIDs attribute <b>set to None and</b>                              allowedApp-IDs attribute <b>indicating APP-ID and</b>                              allowedAEs attribute <b>indicating C-AE-ID-STEM</b>              <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>              the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b>                  Resource Type <b>set to 2 (AE) and</b>                  From <b>set to empty and</b>                  Content <b>containing</b>                      AE resource <b>containing</b>                          App-ID attribute <b>set to APP-ID</b>              <b>}</b></p>	IUT ← AE
	<p><b>then {</b>              the IUT <b>creates</b> the AE resource              <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b>                  Response Status Code <b>set to 2001 (CREATED)</b>              <b>}</b></p>	IUT → AE

TP/oneM2M/CSE/REG/BV/002

<b>TP Id</b>	TP/oneM2M/CSE/REG/BV/002	
<b>Test objective</b>	Check that the IUT accepts an AE re-registration (allowed App-ID, C-AE-ID-STEM provided by AE)	
<b>Reference</b>	TS-0001 10.1.1.2.2 - case d, 9.6.19	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a CSEBase resource <b>containing</b> a ServiceSubscribedProfile resource <b>containing</b> a serviceSubscribedNode resource <b>containing</b> ruleLinks attribute <b>pointing to</b> a serviceSubscribedAppRule resource <b>containing</b> applicableCredIDs attribute <b>set to None and</b> allowedApp-IDs attribute <b>indicating APP-ID and</b> allowedAEs attribute <b>indicating C-AE-ID-STEM</b> <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> Resource Type <b>set to 2 (AE) and</b> From <b>set to C-AE-ID-STEM and</b> Content <b>containing</b> AE resource <b>containing</b> App-ID attribute <b>set to APP-ID</b> <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>creates</b> the AE resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to 2001 (CREATED)</b> <b>}</b>	IUT → AE

TP/oneM2M/CSE/REG/BV/005

<b>TP Id</b>	TP/oneM2M/CSE/REG/BV/005	
<b>Test objective</b>	Check that the IUT accepts an AE registration (allowed App-ID, S-AE-ID-STEM not provided by AE)	
<b>Reference</b>	TS-0001 10.1.1.2.2 - case a, 9.6.19	
<b>Config Id</b>	CF02	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a CSEBase resource <b>containing</b> a ServiceSubscribedProfile resource <b>containing</b> a serviceSubscribedNode resource <b>containing</b> ruleLinks attribute <b>pointing to</b> a serviceSubscribedAppRule resource <b>containing</b> applicableCredIDs attribute <b>set to None and</b> allowedApp-IDs attribute <b>indicating APP-ID and</b> allowedAEs attribute <b>indicating a value</b> starting with 'S' and containing wildcard <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

behaviour	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> Resource Type <b>set to 2 (AE) and</b> From <b>set to empty and</b> Content <b>containing</b> AE resource <b>containing</b> App-ID attribute <b>set to APP-ID</b> <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid CREATE Request <b>to the IN-CSE containing</b> Resource Type <b>set to 10002 (AEAnnc) and</b> From <b>set to '/S' and</b> Content <b>containing</b> AEAnnc resource <b>containing</b> App-ID attribute <b>set to APP-ID and</b> nodeLink attribute <b>set to ??? and</b> labels <b>indicating</b> 'Credential-ID:None' <b>}</b>	IUT → IN-CSE

Editor's Note: Double check the value of attribute nodeLink!!

TP/oneM2M/CSE/REG/BV/008

<b>TP Id</b>	TP/oneM2M/CSE/REG/BV/008	
<b>Test objective</b>	Check that the IUT accepts an AE re-registration (allowed M2M-SP-assigned AE-ID, S-AE-ID-STEM provided by AE), transfer request to the IN-CSE	
<b>Reference</b>	TS-0001 10.1.1.2.2 – case b, step 5, 9.6.19	
<b>Config Id</b>	CF02	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a CSEBase resource <b>containing</b> a ServiceSubscribedProfile resource <b>containing</b> a serviceSubscribedNode resource <b>containing</b> ruleLinks attribute <b>pointing to</b> a serviceSubscribedAppRule resource <b>containing</b> applicableCredIDs attribute <b>set to None and</b> allowedApp-IDs attribute <b>indicating</b> APP-ID <b>and</b> allowedAEs attribute <b>indicating</b> a value starting with 'S' and containing wildcard <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> Resource Type <b>set to 2 (AE) and</b> From <b>set to S-AE-ID-STEM and</b> Content <b>containing</b> AE resource <b>containing</b> App-ID attribute <b>set to APP-ID</b> <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid UPDATE Request <b>to the IN-CSE containing</b> Resource Type <b>set to 10002 (AEAnnc) and</b> To <b>set to IN_CSE_RESOURCE_ADDRESS and</b> From <b>set to '/S' and</b> Content <b>containing</b> AEAnnc resource <b>containing</b> App-ID attribute <b>set to APP-ID and</b> nodeLink attribute <b>set to</b> AE_UNSTRUCTURED_SP_RELATIVE_ADDRESS <b>and</b> labels <b>indicating</b> 'Credential-ID:None' <b>}</b>	IUT → IN-CSE

Note: AE\_UNSTRUCTURED\_SP\_RELATIVE\_ADDRESS = /CSE\_ID/ S-AE-ID-STEM

Editor's Note: TS-0001 defines the nodeLink attribute in AE resource is set to the *resourceID* of a <node> resource that stores the node specific information where this AE resides. If this is the case, it is not correct to set the nodeLink attribute to AE\_UNSTRUCTURED\_SP\_RELATIVE\_ADDRESS. Clarification is required here!!

TP/oneM2M/CSE/REG/BV/009

<b>TP Id</b>	TP/oneM2M/CSE/REG/BV/009	
<b>Test objective</b>	Check that the IUT accepts an AE re-registration (allowed M2M-SP-assigned AE-ID, S-AE-ID-STEM provided by AE), communication between MN-CSE and IN-CSE	
<b>Reference</b>	TS-0001 10.1.1.2.2 – case b, step 5-8	
<b>Config Id</b>	CF03	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the AE <b>having already been registered and</b> the AE <b>having deregistered</b> <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> the CSE <b>containing</b> Resource Type <b>set to</b> 10002 (AEAnnc) <b>and</b> To <b>set to</b> AEANNC_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> '/S' <b>and</b> Content <b>containing</b> AEAnnc resource <b>containing</b> App-ID attribute <b>set to</b> APP-ID <b>and</b> nodeLink attribute <b>set to</b> AE_UNSTRUCTURED_SP_RELATIVE_ADDRESS <b>and</b> labels <b>indicating</b> 'Credential-ID:None' <b>}</b>	IUT ← MN-CSE
	<b>then {</b> the IUT <b>updates</b> the AEANNC_RESOURCE_ADDRESS resource <b>and</b> the IUT <b>sends</b> a valid Response to CSE <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b> Content <b>containing</b> AEAnnc resource <b>containing</b> App-ID attribute <b>set to</b> APP-ID <b>and</b> nodeLink attribute <b>set to</b> AE_UNSTRUCTURED_SP_RELATIVE_ADDRESS <b>and</b> labels <b>indicating</b> 'Credential-ID:None' <b>}</b>	IUT → MN-CSE
Note: AE_UNSTRUCTURED_SP_RELATIVE_ADDRESS = /CSE_ID/ S-AE-ID-STEM		

Editor's Note: TS-0001 defines the nodeLink attribute in AE resource is set to the *resourceID* of a <node> resource that stores the node specific information where this AE resides. If this is the case, it is not correct to set the nodeLink attribute to AE\_UNSTRUCTURED\_SP\_RELATIVE\_ADDRESS. Clarification is required here!!

<b>TP Id</b>	TP/oneM2M/CSE/REG/BV/010	
<b>Test objective</b>	Check that the IUT accepts an AE re-registration (allowed M2M-SP-assigned AE-ID, S-AE-ID-STEM provided by AE), transfer response to the AE	
<b>Reference</b>	TS-0001 10.1.1.2.2 – case b, step 8	
<b>Config Id</b>	CF02	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a CSEBase resource <b>containing</b> a ServiceSubscribedProfile resource <b>containing</b> a serviceSubscribedNode resource <b>containing</b> ruleLinks attribute <b>pointing to</b> a serviceSubscribedAppRule resource <b>containing</b> applicableCredIDs attribute <b>set to None and</b> allowedApp-IDs attribute <b>indicating APP-ID and</b> allowedAEs attribute <b>indicating</b> a value starting with 'S' and containing wildcard <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Response from IN-CSE <b>containing</b> Response Status Code <b>set to 2004 (UPDATED) and</b> Content <b>containing</b> AEAnnnc resource <b>containing</b> App-ID attribute <b>set to APP-ID and</b> nodeLink attribute <b>set to</b> AE_UNSTRUCTURED_SP_RELATIVE_ADDRESS <b>and</b> labels <b>indicating</b> 'Credential-ID:None' <b>}</b>	IUT ← IN-CSE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>to</b> the AE <b>containing</b> Response Status Code <b>set to 2001 (CREATED) and</b> Content <b>containing</b> AE resource <b>containing</b> App-ID attribute <b>set to APP-ID</b> <b>}</b>	IUT → AE
Note: AE_UNSTRUCTURED_SP_RELATIVE_ADDRESS = /CSE_ID/ S-AE-ID-STEM		

Editor’s Note: TS-0001 defines the nodeLink attribute in AE resource is set to the *resourceID* of a <node> resource that stores the node specific information where this AE resides. If this is the case, it is not correct to set the nodeLink attribute to AE\_UNSTRUCTURED\_SP\_RELATIVE\_ADDRESS. Clarification is required here!!





TP/oneM2M/CSE/REG/CRE/BV/005

<b>TP Id</b>	TP/oneM2M/CSE/REG/CRE/BV/005	
<b>Test objective</b>	Check that the IUT accepts an create request of <AE> resource with attributes multiplicity equals to 1 and asking an CSE relative AE_ID by indicating AE_ID_Stem with character 'C'.	
<b>Reference</b>	TS-0001 10.1.1.2.2 case c, TS-0004 7.4.5.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> preconfigured AE_ID_stem <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> CSEBASE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> 'C' <b>and</b> Resource Type <b>set to</b> 2(AE) <b>and</b> Content <b>containing</b> AE resource representation <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> AE resource <b>containing</b> ResourceID attribute <b>set to</b> CSE_RELATIVE_AE_ID <b>and</b> AE-ID attribute <b>set to</b> SP_RELATIVE_AE_ID <b>}</b>	IUT → AE

TP/oneM2M/CSE/REG/CRE/BV/006

<b>TP Id</b>	TP/oneM2M/CSE/REG/CRE/BV/006	
<b>Test objective</b>	Check that the IUT accepts an create request of <AE> resource with attributes multiplicity equals to 1 and provided character 'S' in AE_ID_Stem ask for a SP_relative_AE_ID.	
<b>Reference</b>	TS-0001 10.1.1.2.2 case a, TS-0004 7.4.5.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_MN_CSE or PICS_ASN_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> preconfigured AE_ID_stem <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> CSEBASE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> character 'S' <b>and</b> Resource Type <b>set to</b> 2(AE) <b>and</b> Content <b>containing</b> AE resource representation <b>}</b>	IUT ← AE

	<pre>then{   the IUT <b>sends</b> a valid CREATE Request to IN_CSE <b>containing</b>   To <b>set to</b> IN_CSEBASE_RESOURCE_ADDRESS <b>and</b>   From <b>set to</b> IUT_CSE_ID <b>and</b>   Content <b>containing</b>     AEAnncc resource <b>containing</b>       link attribute <b>set to</b> 'S' }</pre>	IUT → IN-CSE
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TP/oneM2M/CSE/REG/CRE/BV/007

<b>TP Id</b>	TP/oneM2M/CSE/REG/CRE/BV/007	
<b>Test objective</b>	Check that the IUT accepts an response of AEANNC create request during AE registration with provided character 'S' in AE_ID_Stem and asked for a SP_relative_AE_ID.	
<b>Reference</b>	TS-0001 10.1.1.2.2 case a, TS-0004 7.4.5.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_MN_CSE or PICS_ASN_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> preconfigured AE_ID_stem <b>and</b> the IUT <b>having</b> received a valid AE create request <b>and</b> the IUT <b>having</b> sent a valid AEANNC create to IN_CSE <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when{</b> the IUT <b>receives</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> AEAnnc resource <b>containing</b> link attribute <b>set to</b> SP_RELATIVE_AE_ID <b>}</b>	IUT <- IN-CSE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> AE resource <b>containing</b> ResourceID attribute <b>set to</b> SP_RELATIVE_AE_ID <b>and</b> AE-ID attribute <b>set to</b> SP_RELATIVE_AE_ID <b>}</b>	IUT → AE

TP/oneM2M/CSE/REG/CRE/BV/008

<b>TP Id</b>	TP/oneM2M/CSE/REG/CRE/BV/008	
<b>Test objective</b>	Check that the IUT accepts an create request of <AE> resource with attributes multiplicity equals to 1 without preference of format of AE_ID	
<b>Reference</b>		
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

Editor's Note: the case need to be added after the publication of updated R2 of TS-0001 where the case will be added.

6. CE/REG/00002/00003

Support the *labels* attribute of <AE> resource

TP/oneM2M/CSE/REG/RET/BV/004

<b>TP Id</b>	TP/oneM2M/CSE/REG/RET/BV/004	
<b>Test objective</b>	Check that the IUT accepts an retrieval request of <AE> resource with optional <i>ATTRIBUTE</i> .	
<b>Reference</b>	TS-0001 10.2.1.2, TS-0001 9.6.5, TS-0004 7.4.5.2.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the AE resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> AE resource <b>containing</b> <i>ATTRIBUTE</i> attribute <b>}</b>	IUT → AE

TP Id	Reference	ATTRIBUTE
TP/oneM2M/CSE/REG/BV/004_01	TS-0001 9.6.5	labels
TP/oneM2M/CSE/REG/BV/004_02	TS-0001 9.6.5	appName
TP/oneM2M/CSE/REG/BV/004_03	TS-0001 9.6.5	pointOfAccess
TP/oneM2M/CSE/REG/BV/004_04	TS-0001 9.6.5	nodeLink
TP/oneM2M/CSE/REG/BV/004_05	TS-0001 9.6.5	contentSerialization

TP/oneM2M/CSE/REG/BV/004\_01

TP/oneM2M/CSE/DMR/UPD/BV/017\_07

TP/oneM2M/CSE/REG/BV/011

<b>TP Id</b>	TP/oneM2M/CSE/REG/BV/011	
<b>Test objective</b>	Check that the IUT accepts an AE registration with the optional attribute <i>OPTIONAL_ATTRIBUTE</i> provided	
<b>Reference</b>	TS-0001 10.1.1.2.2, 9.6.5-2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE, PICS_IN_PROFILE	

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a CSEBase resource <b>containing</b> a ServiceSubscribedProfile resource <b>containing</b> a serviceSubscribedNode resource <b>containing</b> ruleLinks attribute <b>pointing to</b> a serviceSubscribedAppRule resource <b>containing</b> applicableCredIDs attribute <b>set to None and</b> allowedApp-IDs attribute <b>indicating</b> APP-ID <b>and</b> allowedAEs attribute <b>indicating</b> C-AE-ID-STEM <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> Resource Type <b>set to</b> 2 (AE) <b>and</b> From <b>set to</b> empty <b>and</b> Content <b>containing</b> AE resource <b>containing</b> OPTIONAL_ATTRIBUTE attribute <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>}</b>	IUT → AE

TP Id	Reference	OPTIONAL_ATTRIBUTE	RESOURCE_TYPE
TP/oneM2M/CSE/REG/BV/011_01	TS-0001 9.6.5-2	labels	AE
TP/oneM2M/CSE/REG/BV/011_02	TS-0001 9.6.5-2	AppName	AE
TP/oneM2M/CSE/REG/BV/011_03	TS-0001 9.6.5-2	pointOfAccess	AE

TP/oneM2M/CSE/REG/BV/011\_01

7. CE/REG/00002/00004

Support the *applicationName* attribute of <AE> resource

TP/oneM2M/CSE/REG/BV/004\_02

TP/oneM2M/CSE/REG/BV/011\_02

TP/oneM2M/CSE/DMR/UPD/BV/017\_09

8. CE/REG/00002/00005

Support the *pointOfAccess* attribute of <AE> resource

TP/oneM2M/CSE/REG/BV/004\_03

TP/oneM2M/CSE/REG/BV/011\_03

TP/oneM2M/CSE/DMR/UPD/BV/017\_10

9. CE/REG/00002/00006

AE registration with pre-assigned AE-ID

TP/oneM2M/CSE/REG/CRE/BV/002

<b>TP Id</b>	TP/oneM2M/CSE/REG/CRE/BV/002
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<b>Test objective</b>	Check that the IUT accepts an create request of <AE> resource with attributes multiplicity equals to 1 and provided preprovisioned AE_ID of CSE relative format.	
<b>Reference</b>	TS-0001 10.1.1.2.2 case d, TS-0004 7.4.5.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" and the IUT <b>having</b> preconfigured AE_ID_stem <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> CSEBASE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> CSE_RELATIVE_AE_ID <b>and</b> Resource Type <b>set to</b> 2 (AE) <b>and</b> Content <b>containing</b> AE resource representation <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> AE resource representation <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/REG/CRE/BV/003	
<b>Test objective</b>	Check that the IUT accepts an create request of <AE> resource with attributes multiplicity equals to 1 and provided preprovisioned SP_relative_AE_ID.	
<b>Reference</b>	TS-0001 10.1.1.2.2 case b, TS-0004 7.4.5.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_MN_CSE or PICS_ASN_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> preconfigured AE_ID_stem <b>and</b> the IUT <b>having</b> deregistrated the AE <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> CSEBASE_RESOURCE_ADDRES <b>and</b> From <b>set to</b> SP_RELATIVE_AE_ID <b>and</b> Resource Type <b>set to</b> 2(AE) <b>and</b> Content <b>containing</b> AE resource representation <b>}</b>	IUT ← AE
	<b>then{</b> the IUT <b>sends</b> a valid UPDATE Request <b>to IN-CSE containing</b> To <b>set to</b> AEANNC_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> IUT_CSE_ID <b>and</b> Content <b>containing</b> AEAnnc resource representation <b>}</b>	IUT → IN-CSE

Editor's Note: need to clarify if there is duplication.

<b>TP Id</b>	TP/oneM2M/CSE/REG/CRE/BV/004	
<b>Test objective</b>	Check that the IUT accepts a response from IN_CSE on the success update of AEAnnc during AE registration with preprovisioned SP_relative_AE_ID.	
<b>Reference</b>	TS-0001 10.1.1.2.2 case b, TS-0004 7.4.5.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_MN_CSE or PICS_ASN_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> received the AE creation request <b>and</b> the IUT <b>having</b> sent out the AE_ANNC Update request to IN_CSE <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when{</b> the IUT <b>receives</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b> Content <b>containing</b> AEAnnc resource representation <b>}</b>	IUT <- IN-CSE



<pre>then {   the IUT <b>sends</b> a valid Response <b>containing</b>   Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b>   Content <b>containing</b>   AE resource representation }</pre>	IUT → AE
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<b>TP Id</b>	TP/oneM2M/CSE/REG/CRE/BV/009	
<b>Test objective</b>	Check that the IUT accepts an create request of <AE> resource with attributes multiplicity equals to 1 and provided preprovisioned SP_relative_AE_ID.	
<b>Reference</b>	TS-0001 10.1.1.2.2 case b, TS-0004 7.4.5.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_IN_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> preconfigured AE_ID_stem <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> CSEBASE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> SP_RELATIVE_CSE_ID <b>and</b> Resource Type <b>set to</b> 2(AE) <b>and</b> Content <b>containing</b> AE resource representation <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> AE resource representation <b>}</b>	IUT → AE

10.CE/REG/00003/00001

Support <m2mServiceSubscriptionProfile> resource with attribute multiplicity equals 1[1]

11.CE/REG/00003/00002

Support the *labels* attribute of <m2mServiceSubscriptionProfile> resource

12.CE/REG/00003/00003

Support the CRUD of <serviceSubscribedNode> with attribute multiplicity equals 1

13.CE/REG/00003/00004

Support the *labels* attribute of <serviceSubscribedNode>

14.CE/REG/00003/00005

Support the *CSE-ID* attribute of < serviceSubscribedNode >

15.CE/REG/00003/00006

Support the *deviceIdentifier* attribute of < serviceSubscribedNode >

16.CE/REG/00003/00007

Support the *ruleLinks* attribute of < serviceSubscribedNode >

17.CE/REG/00003/00008

Support the CRUD of < serviceSubscribedAppRule > with attribute multiplicity equals 1

18.CE/REG/00003/00009

Support the *labels* attribute of < serviceSubscribedAppRule >

19.CE/REG/00003/00010

Support the *allowedApp-IDs* attribute of <serviceSubscribedAppRule >

TP/oneM2M/CSE/REG/BV/003

<b>TP Id</b>	TP/oneM2M/CSE/REG/BV/003	
<b>Test objective</b>	Check that the IUT rejects an AE registration (not allowed App-ID)	
<b>Reference</b>	TS-0001 10.1.1.2.2 – step 3, 9.6.19	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a CSEBase resource <b>containing</b> a ServiceSubscribedProfile resource <b>containing</b> no serviceSubscribedNode resource <b>containing</b> ruleLinks attribute <b>pointing to</b> a serviceSubscribedAppRule resource <b>containing</b> applicableCredIDs attribute <b>set to None and</b> allowedApp-IDs attribute <b>indicating</b> APP-ID <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> Resource Type <b>set to</b> 2 (AE) <b>and</b> Content <b>containing</b> AE resource <b>containing</b> App-ID attribute <b>set to</b> APP-ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the AE resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4005 (OPERATION_NOT_ALLOWED) <b>}</b>	IUT → AE

20.CE/REG/00003/00011

Support the *allowedAEs* attribute of <serviceSubscribedAppRule >

TP/oneM2M/CSE/REG/BV/004

<b>TP Id</b>	TP/oneM2M/CSE/REG/BV/004	
<b>Test objective</b>	Check that the IUT rejects an AE registration (allowed App-ID, not allowed C-AE-ID-STEM provided by AE)	
<b>Reference</b>	TS-0001 10.1.1.2.2 – step 3, 9.6.19	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a CSEBase resource <b>containing</b> a ServiceSubscribedProfile resource <b>containing</b> a serviceSubscribedNode resource <b>containing</b> ruleLinks attribute <b>pointing to</b> a serviceSubscribedAppRule resource <b>containing</b> applicableCredIDs attribute <b>set to None and</b> allowedApp-IDs attribute <b>indicating APP-ID and</b> <b>no</b> allowedAEs attribute <b>indicating C-AE-ID-STEM</b> <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> Resource Type <b>set to 2 (AE) and</b> From <b>set to C-AE-ID-STEM and</b> Content <b>containing</b> AE resource <b>containing</b> App-ID attribute <b>set to APP-ID</b> <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the AE resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to 4005 (OPERATION_NOT_ALLOWED)</b> <b>}</b>	IUT → AE

21.CE/REG/00003/00012

Support the *allowedRole-IDs* attribute of <serviceSubscribedAppRule>

22.CE/REG/00004/00001

Support <remoteCSE> resource with attributes multiplicity equals 1[1]

TP/oneM2M/CSE/DMR/RET/BV/013\_09

TP/oneM2M/CSE/DMR/UPD/BV/018\_01

TP/oneM2M/CSE/DMR/UPD/BV/018\_02

TP/oneM2M/CSE/REG/CRE/BV/011

<b>TP Id</b>	TP/oneM2M/CSE/REG/CRE/BV/011	
<b>Test objective</b>	Check that the IUT accepts an create request of <remoteCSE> resource with attributes multiplicity equals to 1.	
<b>Reference</b>	TS-0001 10.1.1.2.1, TS-0004 7.4.4.2.1, TS-0001 9.6.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from CSE containing</b> To <b>set to CSEBASE_RESOURCE_ADDRESS and</b> From <b>set to CSE_ID and</b> Resource Type <b>set to 16(remoteCSE) and</b> Content <b>containing</b> remoteCSE resource representation <b>}</b>	IUT ← CSE

```
then {
  the IUT sends a valid Response containing
  Response Status Code set to 2001 (CREATED) and
  Content containing
  remoteCSE resource representation
}
```

IUT → CSE

<b>TP Id</b>	TP/oneM2M/CSE/REG/CRE/BV/012	
<b>Test objective</b>	Check that the IUT accepts an create request of <remoteCSE> resource with attributes multiplicity equals to 1 without the preconfigured CSE-ID	
<b>Reference</b>	TS-0001 10.1.1.2.1, TS-0004 7.4.4.2.1, TS-0001 9.6.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> CSE <b>containing</b> To <b>set to</b> ResourceID_of_CSEBase <b>and</b> <b>no</b> From <b>and</b> Resource Type <b>set to</b> 16(remoteCSE) <b>and</b> Content <b>containing</b> remoteCSE resource representation <b>}</b>	IUT ← CSE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> remoteCSE resource representation <b>}</b>	IUT → CSE

<b>TP Id</b>	TP/oneM2M/CSE/REG/RET/BV/006	
<b>Test objective</b>	Check that the IUT accepts an retrieve request of <remoteCSE> resource.	
<b>Reference</b>	TS-0001 10.1.1.2.1, TS-0004 7.4.4.2.1, TS-0001 9.6.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the ORIGINATOR <b>and</b> the ORIGINATOR <b>having</b> privileges to perform RETRIEVE operation on the remoteCSE resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> ORIGINATOR <b>containing</b> To <b>set to</b> REMOTECSE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> ORIGINATOR_ID <b>}</b>	IUT ← ORIGINATOR
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> remoteCSE resource representation <b>}</b>	IUT → ORIGINATOR



<b>TP Id</b>	TP/oneM2M/CSE/REG/UPD/BV/002	
<b>Test objective</b>	Check that the IUT accepts an update request of <remoteCSE> resource.	
<b>Reference</b>	TS-0001 10.1.1.2.1, TS-0004 7.4.4.2.1, TS-0001 9.6.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the ORIGINATOR <b>and</b> the ORIGINATOR <b>having</b> privileges to perform UPDATE operation on the remoteCSE resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> ORIGINATOR <b>containing</b> To <b>set to</b> REMOTECSE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> ORIGINATOR_ID <b>and</b> Content <b>containing</b> remoteCSE resource <b>containing</b> ATTRIBUTE attribute <b>}</b>	IUT ← ORIGINATOR
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b> Content <b>containing</b> remoteCSE resource representation <b>containing</b> ATTRIBUTE attribute <b>}</b>	IUT → ORIGINATOR

TP Id	Reference	ATTRIBUTE
TP/oneM2M/CSE/REG/UPD/BV/002_01	TS-0001 9.6.4	expirationTime
TP/oneM2M/CSE/REG/UPD/BV/002_02	TS-0001 9.6.4	labels
TP/oneM2M/CSE/REG/UPD/BV/002_03	TS-0001 9.6.4	pointOfAccess
TP/oneM2M/CSE/REG/UPD/BV/002_04	TS-0001 9.6.4	nodeLink

TP/oneM2M/CSE/REG/UPD/BV/002\_01



<b>TP Id</b>	TP/oneM2M/CSE/REG/DEL/BV/002	
<b>Test objective</b>	Check that the IUT accepts an delete request of <remoteCSE> resource.	
<b>Reference</b>	TS-0001 10.1.1.2.1, TS-0004 7.4.4.2.1, TS-0001 9.6.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the ORIGINATOR <b>and</b> the ORIGINATOR <b>having</b> privileges to perform DELETE operation on the remoteCSE resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid DELETE Request <b>from</b> ORIGINATOR <b>containing</b> To <b>set to</b> REMOTECSE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> ORIGINATOR_ID <b>}</b>	IUT ← ORIGINATOR
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2002 (DELETED) <b>}</b>	IUT → ORIGINATOR

23.CE/REG/00004/00002

Support the *labels* attribute of <remoteCSE> resource

TP/oneM2M/CSE/REG/UPD/BV/002\_02

TP/oneM2M/CSE/DMR/UPD/BV/017\_01

TP/oneM2M/CSE/REG/RET/BV/007

<b>TP Id</b>	TP/oneM2M/CSE/REG/RET/BV/007	
<b>Test objective</b>	Check that the IUT accepts an retrieve request of <remoteCSE> resource with optional <i>ATTRIBUTE</i>	
<b>Reference</b>	TS-0001 10.1.1.2.1, TS-0004 7.4.4.2.1, TS-0001 9.6.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the ORIGINATOR <b>and</b> the ORIGINATOR <b>having</b> privileges to perform RETRIEVE operation on the remoteCSE resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> ORIGINATOR <b>containing</b> To <b>set to</b> REMOTECSE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> ORIGINATOR_ID <b>}</b>	IUT ← ORIGINATOR

<pre> then {   the IUT <b>sends</b> a valid Response <b>containing</b>   Response Status Code <b>set to</b> 2000 (OK) <b>and</b>   Content <b>containing</b>   remoteCSE resource <b>containing</b>   ATTRIBUTE attribute } </pre>	IUT → ORIGINATOR
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TP Id	Reference	ATTRIBUTE
TP/oneM2M/CSE/REG/RET/BV/007_01	TS-0001 9.6.4	labels
TP/oneM2M/CSE/REG/RET/BV/007_02	TS-0001 9.6.4	cseType
TP/oneM2M/CSE/REG/RET/BV/007_03	TS-0001 9.6.4	pointOfAccess
TP/oneM2M/CSE/REG/RET/BV/007_04	TS-0001 9.6.4	nodeLink

TP/oneM2M/CSE/REG/RET/BV/007\_01

24.CE/REG/00004/00003

Support the *cseType* attribute of <remoteCSE> resource

TP/oneM2M/CSE/REG/RET/BV/007\_02

25.CE/REG/00004/00004

Support the *pointOfAccess* attribute of <remoteCSE> resource

TP/oneM2M/CSE/REG/RET/BV/007\_03

TP/oneM2M/CSE/REG/UPD/BV/002\_03

TP/oneM2M/CSE/DMR/UPD/BV/017\_02

26.CE/REG/00004/00005

Support the *nodeLink* attribute of <remoteCSE> resource

TP/oneM2M/CSE/REG/RET/BV/007\_04

TP/oneM2M/CSE/REG/UPD/BV/002\_04

TP/oneM2M/CSE/DMR/UPD/BV/017\_03

27.CE/REG/00005/00001

The Creation with <remoteCSE> resource for CSE registration with mandatory attributes[2] for Create and locally create <remoteCSE> that represents the Regstree CSE

28.CE/REG/00005/00002

Create the <remoteCSE> with *resourceName* attribute

29.CE/REG/00005/00003

Create the <remoteCSE> with *expirationTime* attribute

30.CE/REG/00005/00004

Create the <remoteCSE> with *labels* attribute

31.CE/REG/00005/00005

Create the <remoteCSE> with *cseType* attribute

32.CE/REG/00005/00006

Create the <remoteCSE> with *pointOfAccess* attribute

33.CE/REG/00005/00007

Create the <remoteCSE> with *nodeLink* attribute

34.CE/REG/00005/00008

Update the <remoteCSE> with *labels*

35.CE/REG/00005/00009

Update the <remoteCSE> with *expirationTime*

36.CE/REG/00005/00010

Update the <remoteCSE> with *pointOfAccess* attribute

37.CE/REG/00005/00011

Update the <remoteCSE> with *requestReachability*

38.CE/REG/00005/00012

Update the <remoteCSE> with *nodeLink* attribute

39.CE/REG/00005/00013

Delete the <remoteCSE> resource on the Registrar, also delete the <remoteCSE> resource on the Registree

40.CE/REG/00005/00014

Retrieve the <remoteCSE> resource

### 3. Data Management and Repository Function (DMR)

#### 1. CE/DMR/00001/00001

Support <container> resource with attributes multiplicity equals 1[1]

CREATE OPERATION

TP/oneM2M/CSE/DMR/CRE/BV/001

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/001	
<b>Test objective</b>	Check that the IUT accepts the creation of a <i>RESOURCE_TYPE</i> resource on the TARGET_RESOURCE_ADDRESS of type <i>PARENT_RESOURCE_TYPE</i> with resource name not provided	
<b>Reference</b>	TS-0001 10.1.1.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the Originator <b>having</b> privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> Resource Type <b>set to</b> <i>RESOURCE_TYPE</i> <b>and</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> <b>no</b> resourceName attribute <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>creates</b> the <i>RESOURCE_TYPE</i> resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> Valid resourceName attribute <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE	PARENT_RESOURCE_TYP E
TP/oneM2M/CSE/DMR/CRE/BV/001_01	TS-0001 10.2.4.1	3 (container)	5 (CSEBase)
TP/oneM2M/CSE/DMR/CRE/BV/001_02	TS-0001 10.2.4.1	3 (container)	2 (AE)
TP/oneM2M/CSE/DMR/CRE/BV/001_03	TS-0001 10.2.4.1	3 (container)	3 (container)
TP/oneM2M/CSE/DMR/CRE/BV/001_04	TS-0001 10.2.7.2	9 (group)	5 (CSEBase)
TP/oneM2M/CSE/DMR/CRE/BV/001_05	TS-0001 10.2.7.2	9 (group)	2 (AE)
TP/oneM2M/CSE/DMR/CRE/BV/001_06	TS-0001 10.2.21.1	1 (accessControlPolicy)	5 (CSEBase)
TP/oneM2M/CSE/DMR/CRE/BV/001_07	TS-0001 10.2.21.1	1 (accessControlPolicy)	2 (AE)
TP/oneM2M/CSE/DMR/CRE/BV/001_08		18 (schedule)	5 (CSEBase)

TP/oneM2M/CSE/DMR/CRE/BV/001_09		18 (schedule)	2 (AE)
TP/oneM2M/CSE/DMR/CRE/BV/001_10		18 (schedule)	23 (subscription)
TP/oneM2M/CSE/DMR/CRE/BV/001_11	TS-0001 10.2.13.2	15 (pollingChannel)	2 (AE)
TP/oneM2M/CSE/DMR/CRE/BV/001_12	TS-0001 10.2.11.2	23 (subscription)	5 (CSEBase)
TP/oneM2M/CSE/DMR/CRE/BV/001_13	TS-0001 10.2.11.2	23 (subscription)	2 (AE)
TP/oneM2M/CSE/DMR/CRE/BV/001_14	TS-0001 10.2.11.2	23 (subscription)	3 (container)
TP/oneM2M/CSE/DMR/CRE/BV/001_15	TS-0001 10.2.11.2	23 (subscription)	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/CRE/BV/001_16	TS-0001 10.2.11.2	23 (subscription)	18 (schedule)
TP/oneM2M/CSE/DMR/CRE/BV/001_17	TS-0001 10.2.11.2	23 (subscription)	9 (group)

TP/oneM2M/CSE/DMR/CRE/BV/001\_01

TP/oneM2M/CSE/DMR/CRE/BV/002\_01

TP/oneM2M/CSE/DMR/CRE/BV/003

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/003	
<b>Test objective</b>	Check that the IUT rejects the creation of a <i>RESOURCE_TYPE</i> resource with an existing resource name provided by AE	
<b>Reference</b>	TS-0001 10.1.1.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS <b>and</b> the AE <b>containing</b> a child resource <b>containing</b> resourceName attribute <b>set to</b> NAME <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> RESOURCE_TYPE <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> resourceName attribute <b>set to</b> NAME <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 5106 (ALREADY_EXISTS) <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/CRE/BV/003_01	TS-0001 10.2.4.1	3 (container)
TP/oneM2M/CSE/DMR/CRE/BV/003_02	TS-0001 10.2.7.2	9 (group)
TP/oneM2M/CSE/DMR/CRE/BV/003_03	TS-0001 10.2.21.1	1 (accessControlPolicy)

TP/oneM2M/CSE/DMR/CRE/BV/003_04		18 (schedule)
TP/oneM2M/CSE/DMR/CRE/BV/003_05	TS-0001 10.2.13.2	15 (pollingChannel)
TP/oneM2M/CSE/DMR/CRE/BV/003_06	TS-0001 10.2.11.2	23 (subscription)

TP/oneM2M/CSE/DMR/CRE/BV/003\_01

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/009	
<b>Test objective</b>	Check that the IUT increments and then copies the field value of attribute <i>stateTag</i> in parent container resource when contentInstance resource is created as the direct child of the parent container	
<b>Reference</b>	TS-0001 9.6.1.3.2, TS-0004 7.4.7.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> a container resource CONTAINER_RESOURCE_ADDRESS <b>containing</b> stateTag attribute <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource CONTAINER_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Resource Type <b>set to</b> 4 (contentInstance) <b>and</b> <b>no</b> Content <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>increments</b> stateTag attribute of CONTAINER_RESOURCE_ADDRESS resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/015	
<b>Test objective</b>	Check that the IUT accepts the creation of a <i>RESOURCE_TYPE</i> resource with the optional attribute <i>OPTIONAL_ATTRIBUTE</i> provided	
<b>Reference</b>	TS-0001 10.1.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE, PICS_IN_PROFILE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource AE_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> valid OPTIONAL_ATTRIBUTE attribute <b>}</b>	IUT ← AE

<pre> then {   the IUT <b>creates</b> the <i>RESOURCE_TYPE</i> resource   and the IUT <b>sends</b> a valid Response <b>containing</b>   Response Status Code <b>set to</b> 2001 (CREATED) } </pre>	IUT → AE
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TP Id	Reference	OPTIONAL_ATTRIBUTE	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/CRE/BV/015_01	TS-0001 9.6.1.3.2-1	accessControlPolicyIDs	container
TP/oneM2M/CSE/DMR/CRE/BV/015_02	TS-0001 9.6.1.3.1-1	expirationTime	container
TP/oneM2M/CSE/DMR/CRE/BV/015_03	TS-0001 9.6.1.3.2-1	labels	container
TP/oneM2M/CSE/DMR/CRE/BV/015_04	TS-0001 9.6.6-2	maxNrOfInstances	container
TP/oneM2M/CSE/DMR/CRE/BV/015_05	TS-0001 9.6.6-2	maxByteSize	container
TP/oneM2M/CSE/DMR/CRE/BV/015_06	TS-0001 9.6.6-2	maxInstanceAge	container
TP/oneM2M/CSE/DMR/CRE/BV/015_07	TS-0001 9.6.6-2	ontologyRef	container
TP/oneM2M/CSE/DMR/CRE/BV/015_08	TS-0001 9.6.1.3.1-1	expirationTime	contentInstance
TP/oneM2M/CSE/DMR/CRE/BV/015_09	TS-0001 9.6.1.3.2-1	labels	contentInstance
TP/oneM2M/CSE/DMR/CRE/BV/015_10	TS-0001 9.6.7-2	creator	contentInstance
TP/oneM2M/CSE/DMR/CRE/BV/015_11	TS-0001 9.6.7-2	contentInfo	contentInstance
TP/oneM2M/CSE/DMR/CRE/BV/015_12	TS-0001 9.6.7-2	ontologyRef	contentInstance
TP/oneM2M/CSE/DMR/CRE/BV/015_13	TS-0001 9.6.1.3.1-1	expirationTime	accessControlPolicy
TP/oneM2M/CSE/DMR/CRE/BV/015_14	TS-0001 9.6.1.3.2-1	labels	accessControlPolicy
TP/oneM2M/CSE/DMR/CRE/BV/015_15	TS-0001 9.6.1.3.2-1	accessControlPolicyIDs	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_16	TS-0001 9.6.1.3.1-1	expirationTime	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_17	TS-0001 9.6.1.3.2-1	labels	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_18	TS-0001 9.6.8-2	eventNotificationCriteria	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_19	TS-0001 9.6.8-2	expirationCounter	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_20	TS-0001 9.6.8-2	groupID	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_21	TS-0001 9.6.8-2	notificationForwardingURI	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_22	TS-0001 9.6.8-2	batchNotify	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_23	TS-0001 9.6.8-2	rateLimit	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_24	TS-0001 9.6.8-2	preSubscriptionNotify	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_25	TS-0001 9.6.8-2	pendingNotification	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_26	TS-0001 9.6.8-2	notificationStoragePriority	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_27	TS-0001 9.6.8-2	latestNotify	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_28	TS-0001 9.6.8-2	notificationContentType	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_29	TS-0001 9.6.8-2	notificationEventCat	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_30	TS-0001 9.6.8-2	creator	subscription
TP/oneM2M/CSE/DMR/CRE/BV/015_31	TS-0001 9.6.8-2	subscriberURI	subscription

TP/oneM2M/CSE/DMR/CRE/BV/015\_02



RETRIEVE OPERATION

TP/oneM2M/CSE/DMR/RET/BV/013\_03

UPDATE OPERATION

TP/oneM2M/CSE/DMR/UPD/BV/010

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BV/010	
<b>Test objective</b>	Check that the stateTag attribute of a container resource is increased when an update operation has been performed on its child resource	
<b>Reference</b>	TS-0001 10.1.3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a container resource <b>containing</b> CHILD_RESOURCE_TYPE resource <b>containing</b> valid ATTRIBUTE_NAME attribute <b>set to</b> VALUE_1 <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the TARGET_CHILD_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_CHILD_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID Content <b>containing</b> CHILD_RESOURCE_TYPE resource <b>containing</b> valid ATTRIBUTE_NAME attribute <b>set to</b> VALUE_2 <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>increments</b> the stateTag attribute of container resource <b>and</b> the IUT sends a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>}</b>	IUT → AE

TP/oneM2M/CSE/DMR/UPD/BV/014

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BV/014	
<b>Test objective</b>	Check that the IUT updates successfully the value of the optional attribute <i>OPTIONAL_ATTRIBUTE</i> of the <i>RESOURCE_TYPE</i> resource.	
<b>Reference</b>	TS-0001 10.1.3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE, PICS_IN_PROFILE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> the <i>RESOURCE_TYPE</i> resource <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

behaviour	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request from AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS and From <b>set to</b> AE-ID and Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> OPTIONAL_ATTRIBUTE attribute <b>set to</b> VALUE <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) and Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> OPTIONAL_ATTRIBUTE attribute <b>set to</b> VALUE <b>}</b>	IUT → AE

TP Id	Reference	OPTIONAL_ATTRIBUTE	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/UPD/BV/014_01	TS-0001 9.6.1.3.2-1	accessControlPolicyIDs	container
TP/oneM2M/CSE/DMR/UPD/BV/014_02	TS-0001 9.6.1.3.1-1	expirationTime	container
TP/oneM2M/CSE/DMR/UPD/BV/014_03	TS-0001 9.6.1.3.2-1	labels	container
TP/oneM2M/CSE/DMR/UPD/BV/014_04	TS-0001 9.6.6-2	maxNrOfInstances	container
TP/oneM2M/CSE/DMR/UPD/BV/014_05	TS-0001 9.6.6-2	maxByteSize	container
TP/oneM2M/CSE/DMR/UPD/BV/014_06	TS-0001 9.6.6-2	maxInstanceAge	container
TP/oneM2M/CSE/DMR/UPD/BV/014_07	TS-0001 9.6.6-2	ontologyRef	container
TP/oneM2M/CSE/DMR/UPD/BV/014_08	TS-0001 9.6.1.3.1-1	expirationTime	accessControlPolicy
TP/oneM2M/CSE/DMR/UPD/BV/014_09	TS-0001 9.6.1.3.2-1	labels	accessControlPolicy
TP/oneM2M/CSE/DMR/UPD/BV/014_10	TS-0001 9.6.2-2	Privileges	accessControlPolicy
TP/oneM2M/CSE/DMR/UPD/BV/014_11	TS-0001 9.6.2-2	selfPrivileges	accessControlPolicy
TP/oneM2M/CSE/DMR/UPD/BV/014_12	TS-0001 9.6.1.3.2-1	accessControlPolicyIDs	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_13	TS-0001 9.6.1.3.1-1	expirationTime	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_14	TS-0001 9.6.1.3.2-1	labels	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_15	TS-0001 9.6.8-2	eventNotificationCriteria	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_16	TS-0001 9.6.8-2	expirationCounter	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_17	TS-0001 9.6.8-2	groupID	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_18	TS-0001 9.6.8-2	notificationForwardingURI	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_19	TS-0001 9.6.8-2	batchNotify	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_20	TS-0001 9.6.8-2	rateLimit	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_21	TS-0001 9.6.8-2	pendingNotification	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_22	TS-0001 9.6.8-2	notificationStoragePriority	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_23	TS-0001 9.6.8-2	latestNotify	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_24	TS-0001 9.6.8-2	notificationContentType	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_25	TS-0001 9.6.8-2	notificationEventCat	subscription

TP/oneM2M/CSE/DMR/UPD/BV/014\_02

DELETE OPERATION

TP/oneM2M/CSE/DMR/DEL/BV/001

<b>TP Id</b>	TP/oneM2M/CSE/DMR/DEL/BV/001	
<b>Test objective</b>	Check that the IUT accepts the deletion of a <i>RESOURCE_TYPE</i> resource	
<b>Reference</b>	TS-0001 10.1.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type <i>RESOURCE_TYPE</i> <b>and</b> the AE <b>having</b> privileges to perform DELETE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid DELETE Request from AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>deletes</b> the TARGET_RESOURCE_ADDRESS resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2002 (DELETED) <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/DEL/BV/001_01	TS-0001 10.2.4.4	3 (container)
TP/oneM2M/CSE/DMR/DEL/BV/001_02	TS-0001 10.2.7.5	9 (group)
TP/oneM2M/CSE/DMR/DEL/BV/001_03	TS-0001 10.2.21.4	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/DEL/BV/001_04		18 (schedule)
TP/oneM2M/CSE/DMR/DEL/BV/001_05	TS-0001 10.2.13.5	15 (pollingChannel)
TP/oneM2M/CSE/DMR/DEL/BV/001_06	TS-0001 10.2.11.5	23 (subscription)

TP/oneM2M/CSE/DMR/DEL/BV/001\_01

TP/oneM2M/CSE/DMR/DEL/BV/003

<b>TP Id</b>	TP/oneM2M/CSE/DMR/DEL/BV/003	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to delete the resource TARGET_RESOURCE_ADDRESS which does not exist	
<b>Reference</b>	TS-0001 10.1.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having not yet created</b> a resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid DELETE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not delete</b> the TARGET_RESOURCE_ADDRESS resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4004 (NOT_FOUND) <b>}</b>	IUT → AE

Editor's Note: permutations need to be added here.

TP/oneM2M/CSE/DMR/DEL/BV/004

<b>TP Id</b>	TP/oneM2M/CSE/DMR/DEL/BV/004	
<b>Test objective</b>	Check that the IUT responds with an error when AE tries to delete a child resource of a RESOURCE_TYPE resource when this resource has been already deleted	
<b>Reference</b>	TS-0001 10.1.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE <b>containing</b> a child resource <b>and</b> the AE <b>having</b> privileges to perform DELETE operation on the resource TARGET_RESOURCE_ADDRESS <b>and</b> the AE <b>having deleted</b> the TARGET_RESOURCE_ADDRESS resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid DELETE Request <b>from AE containing</b> To <b>set to</b> TARGET_CHILD_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE

<pre> then {   the IUT <b>does not delete</b> the TARGET_RESOURCE_ADDRESS   resource   <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b>   Response Status Code <b>set to</b> 4004 (NOT_FOUND) } </pre>	IUT → AE
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TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/DEL/BV/004_01	TS-0001 10.2.4.4	3 (container)
TP/oneM2M/CSE/DMR/DEL/BV/004_02	TS-0001 10.2.7.5	9 (group)
TP/oneM2M/CSE/DMR/DEL/BV/004_03	TS-0001 10.2.21.4	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/DEL/BV/004_04		18 (schedule)
TP/oneM2M/CSE/DMR/DEL/BV/004_05	TS-0001 10.2.13.5	15 (pollingChannel)
TP/oneM2M/CSE/DMR/DEL/BV/004_06	TS-0001 10.2.11.5	23 (subscription)

**TP/oneM2M/CSE/DMR/DEL/BV/004\_01**

TP/oneM2M/CSE/DMR/DEL/BV/005

<b>TP Id</b>	TP/oneM2M/CSE/DMR/DEL/BV/005	
<b>Test objective</b>	Check that the stateTag attribute of a container resource is increased when a child resource is deleted	
<b>Reference</b>	TS-0001 10.1.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre> with {   the IUT <b>being</b> in the "initial state"   <b>and</b> the IUT <b>having registered</b> the AE   <b>and</b> the IUT <b>having created</b> a container resource <b>containing</b>   a child resource   <b>and</b> the AE <b>having</b> privileges to perform DELETE operation on the   TARGET_CHILD_RESOURCE_ADDRESS } </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when {   the IUT <b>receives</b> a valid DELETE Request <b>from</b> AE <b>containing</b>   To <b>set to</b> TARGET_CHILD_RESOURCE_ADDRESS <b>and</b>   From <b>set to</b> AE_ID } </pre>	IUT ← AE
	<pre> then {   the IUT <b>increments</b> the stateTag attribute of the container resource   <b>and</b> the IUT sends a valid Response <b>containing</b>   Response Status Code <b>set to</b> 2002 (DELETED) } </pre>	IUT → AE

TP/oneM2M/CSE/DMR/DEL/BV/006

<b>TP Id</b>	TP/oneM2M/CSE/DMR/DEL/BV/006
<b>Test objective</b>	Check that the IUT decreases the field value of attribute currentNrOfInstances and currentByteSize of parent container when a latest contentInstance resource is deleted successfully

<b>Reference</b>	TS-0001 10.2.19.5, TS-0004 7.4.8.2.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a container resource <b>containing</b> currentNrOfInstances attribute <b>set to</b> NR_OF_INSTANCES <b>and</b> currentByteSize attribute <b>set to</b> BYTE_SIZE_OF_DATA <b>and</b> a contentInstance resource TARGET_RESOURCE_ADDRESS <b>and</b> the AE <b>having</b> privileges to perform DELETE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid DELETE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>decreases</b> the currentNrOfInstances attribute of container resource <b>and</b> the IUT <b>decreases</b> the currentByteSize attribute of container resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2002 (DELETED) <b>and</b> <b>}</b>	IUT → AE

Editor's Note: Need to clarify if needed to split into two separate test purposes.

2. CE/DMR/00001/00002

Support the *labels* attribute of <container> resource

UPDATE OPERATION

TP/oneM2M/CSE/DMR/UPD/BV/014\_03

TP/oneM2M/CSE/DMR/UPD/BV/017\_12

CREATE OPEARTION

TP/oneM2M/CSE/DMR/CRE/BV/015\_03

3. CE/DMR/00001/00003

Support the *creator* attribute of <container> resource

4. CE/DMR/00001/00004

Support the *maxNrOfInstances* attribute of <container> resource

UPDATE OPERATION

TP/oneM2M/CSE/DMR/UPD/BV/014\_04

TP/oneM2M/CSE/DMR/UPD/BV/017\_14

CREATE OPERATION

TP/oneM2M/CSE/DMR/CRE/BV/006

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/006	
<b>Test objective</b>	Check that the IUT returns a default value to RW ATTRIBUTE in the response of a <container> CREATE Request where no a RW ATTRIBUTE is provided by AE	
<b>Reference</b>	TS-0001 10.2.4.1, TS-0004 7.4.7.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource AE_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Resource Type <b>set to</b> 3 (container) <b>and</b> <b>no</b> Content <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>creates</b> the container resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> a valid <i>ATTRIBUTE</i> attribute <b>}</b>	IUT → AE

TP ID	Reference	ATTRIBUTE
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TP/oneM2M/CSE/DMR/CRE/BV/006_01	TS-0001 9.6.6, TS-0004 7.4.7.1	maxNrOfInstances
TP/oneM2M/CSE/DMR/CRE/BV/006_02	TS-0001 9.6.6, TS-0004 7.4.7.1	maxByteSize
TP/oneM2M/CSE/DMR/CRE/BV/006_03	TS-0001 9.6.6, TS-0004 7.4.7.1	maxInstanceAge

TP/oneM2M/CSE/DMR/CRE/BV/007

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/007	
<b>Test objective</b>	Check that the IUT responds with error when the newly created <contentInstance> results in that the field value of attribute <i>currentNrOfInstances</i> exceeds the field value of <i>maxNrOfInstances</i> in the parent container resource.	
<b>Reference</b>	TS-0001 10.2.19.2, TS-0004 7.4.8.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> a container resource TARGET_RESOURCE_ADDRESS <b>containing</b> currentNrOfInstances attribute <b>set to</b> MAX_NUMBER_OF_INSTANCES <b>and</b> maxNrOfInstances attribute <b>set to</b> MAX_NUMBER_OF_INSTANCES <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Resource Type <b>set to</b> 4 (contentInstance) <b>and</b> <b>no</b> Content <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the contentInstance resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 5207 (NOT_ACCEPTABLE) <b>}</b>	IUT → AE

TP/oneM2M/CSE/DMR/CRE/BV/005

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/005	
<b>Test objective</b>	Check that the IUT rejects the CREATE Request of container resource when the RW ATTRIBUTE is provided with an invalid value	
<b>Reference</b>	TS-0001 10.2.4.1, TS-0004 7.4.7.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource AE_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>



<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request from AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Resource Type <b>set to</b> 3 (container) <b>and</b> Content <b>containing</b> an invalid RW <i>ATTRIBUTE</i> attribute <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the container resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4000 (BAD_REQUEST) <b>}</b>	IUT → AE

TP ID	Reference	ATTRIBUTE
TP/oneM2M/CSE/DMR/CRE/BV/005_01	TS-0001 9.6.6, TS-0004 7.4.7.1	maxNrOfInstances
TP/oneM2M/CSE/DMR/CRE/BV/005_02	TS-0001 9.6.6, TS-0004 7.4.7.1	maxByteSize
TP/oneM2M/CSE/DMR/CRE/BV/005_03	TS-0001 9.6.6, TS-0004 7.4.7.1	maxInstanceAge

Editor's note: When one or more than one of the ATTRIBUTE list as above is/are included in the <container> CREATE Request, the IUT will respond with BAD\_REQUEST error.

TP/oneM2M/CSE/DMR/CRE/BV/005\_01

TP/oneM2M/CSE/DMR/CRE/BV/015\_04

TP/oneM2M/CSE/DMR/CRE/BV/006\_01

5. CE/DMR/00001/00005

Support the *maxByteSize* attribute of <container> resource

UPDATE OPERATION

TP/oneM2M/CSE/DMR/UPD/BV/014\_05

TP/oneM2M/CSE/DMR/UPD/BV/017\_15

CREATE OPERATION

TP/oneM2M/CSE/DMR/CRE/BV/015\_05

TP/oneM2M/CSE/DMR/CRE/BV/005\_02

TP/oneM2M/CSE/DMR/CRE/BV/006\_02

TP/oneM2M/CSE/DMR/CRE/BV/008

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/008
<b>Test objective</b>	Check that the IUT responds with error when the newly created contentInstance results in the field value set in attribute <i>currentByteSize</i> exceeds the field value set in <i>maxByteSize</i> in the parent container resource.
<b>Reference</b>	TS-0001 10.2.19.2, TS-0004 7.4.8.2
<b>Config Id</b>	CF01
<b>PICS Selection</b>	PICS_CSE

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> a container resource TARGET_RESOURCE_ADDRESS <b>containing</b> maxByteSize attribute <b>set to</b> MAX_BYTE_SIZE_OF_DATA <b>and</b> currentByteSize attribute <b>set to</b> MAX_BYTE_SIZE_OF_DATA <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Resource Type <b>set to</b> 4 (contentInstance) <b>and</b> <b>no</b> Content <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the contentInstance resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 5207 (NOT_ACCEPTABLE) <b>}</b>	IUT → AE

## 6. CE/DMR/00001/00006

Support the *maxInstanceAge* attribute of <container> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_06

TP/oneM2M/CSE/DMR/CRE/BV/005\_03

TP/oneM2M/CSE/DMR/CRE/BV/006\_03

TP/oneM2M/CSE/DMR/UPD/BV/014\_06

TP/oneM2M/CSE/DMR/UPD/BV/017\_16

## 7. CE/DMR/00002/00001

Support <contentInstance> resource with attributes multiplicity equals 1[1]

CREATE OPERATION

TP/oneM2M/CSE/DMR/CRE/BV/015\_08

UPDATE OPERATION

TP/oneM2M/CSE/DMR/UPD/BV/011

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BV/011
<b>Test objective</b>	Check that the IUT rejects the UPDATE Request of an existing contentInstance resource with error "OPERATION_NOT_ALLOWED"
<b>Reference</b>	TS-0001 10.2.19.4, TS-0004 7.3.2.1 & 7.4.8.2.3
<b>Config Id</b>	CF01
<b>PICS Selection</b>	PICS_CSE
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> a container resource <b>containing</b> a contentInstance resource TARGET_RESOURCE_ADDRESS <b>}</b>

	Test events	Direction
Expected behaviour	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not update</b> the TARGET_RESOURCE_ADDRESS resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4005 (OPERATION_NOT_ALLOWED) <b>}</b>	IUT → AE

#### 8. CE/DMR/00002/00002

Support the *labels* attribute of <contentInstance> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_09

#### 9. CE/DMR/00002/00003

Support the *creator* attribute of <contentInstance> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_10

#### 10. CE/DMR/00002/00004

Support the *contentInfo* attribute of <contentInstance> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_11

#### 11. CE/DMR/00002/00005

Support the *contentRef* attribute of <contentInstance> resource

#### 12. CE/DMR/00002/00006

Retrieve and Delete of latest <contentInstance> resource by <latest> virtual resource

CREATE OPERATION

TP/oneM2M/CSE/DMR/CRE/BI/010

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BI/010	
<b>Test objective</b>	Check that the IUT rejects the CREATE Request of a container resource named "la" as a direct child of a container resource	
<b>Reference</b>	TS-0001 10.2.22, TS-0004 7.4.28.2.2 & 7.3.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a container resource CONTAINER_RESOURCE_ADDRESS <b>and</b> the IUT <b>having</b> privileges to perform CREATE operation on the resource CONTAINER_RESOURCE_ADDRESS <b>}</b>	
	<b>Test events</b>	<b>Direction</b>

<b>Expected behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> Container resource <b>containing</b> resourceName attribute <b>set to</b> "la" <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the container resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4005 (OPERATION_NOT_ALLOWED) <b>}</b>	IUT → AE

## RETRIEVE OPERATION

TP/oneM2M/CSE/DMR/RET/BO/009

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BO/009	
<b>Test objective</b>	Check that the IUT rejects the RETRIEVE Request of a latest resource target to a container resource that has no direct child contentInstance resources.	
<b>Reference</b>	TS-0001 10.2.22.1, TS-0004 7.4.28.2.3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> a container resource <b>containing</b> <b>no</b> direct child contentInstance resources <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4004 (NOT_FOUND) <b>}</b>	IUT → AE

TP/oneM2M/CSE/DMR/RET/BV/012

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BV/012
<b>Test objective</b>	Check that the IUT accepts the RETRIEVE Request of the latest contentInstance target to a <container> resource
<b>Reference</b>	TS-0001 10.2.22.1, TS-0004 7.4.28.2.3
<b>Config Id</b>	CF01
<b>PICS Selection</b>	PICS_CSE, PICS_IN_PROFILE

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> <b>and</b> the IUT <b>having created</b> a container resource <b>containing</b> CONTENT_INSTANCE_1 contentInstance resource <b>and</b> CONTENT_INSTANCE_2 contentInstance resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the container resource <b>and</b> creationTime attribute of CONTENT_INSTANCE_1 < creationTime attribute of CONTENT_INSTANCE_2 <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS/la <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> resourceName attribute <b>set to</b> CONTENT_INSTANCE_2 <b>}</b>	IUT → AE

#### UPDATE OPERATION

TP/oneM2M/CSE/DMR/UPD/BI/012

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BI/012	
<b>Test objective</b>	Check that the IUT rejects the UPDATE Request of a latest resource as a direct child of a <container> resource with error "OPERATION_NOT_ALLOWED"	
<b>Reference</b>	TS-0001 10.2.22, TS-0004 7.4.28.2.4 & 7.3.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> a container resource <b>containing</b> a contentInstance resource <b>containing</b> valid creationTime attribute <b>set to</b> the most recent resource creation time <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a UPDATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS/la <b>and</b> From <b>set to</b> AE_ID <b>and</b> <b>no</b> Content <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not update</b> the CONTAINER_RESOURCE_ADDRESS/la resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4005 (OPERATION_NOT_ALLOWED) <b>}</b>	IUT → AE

#### DELETE OPERATION

TP/oneM2M/CSE/DMR/DEL/BV/007

<b>TP Id</b>	TP/oneM2M/CSE/DMR/DEL/BV/007	
<b>Test objective</b>	Check that the IUT accepts the DELETE Request of the latest contentInstance resource target to a container resource	
<b>Reference</b>	TS-0001 10.2.22.2, TS-0004 7.4.28.2.5	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE, PICS_IN_PROFILE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a container resource <b>containing</b> CONTENT_INSTANCE_1 contentInstance resource <b>and</b> CONTENT_INSTANCE_2 contentInstance resource <b>and</b> the AE <b>having</b> privileges to perform DELETE operation on the container resource <b>and</b> creationTime attribute of CONTENT_INSTANCE_1 < creationTime attribute of CONTENT_INSTANCE_2 <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid DELETE Request <b>from</b> AE <b>containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS/la <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>deletes</b> the CONTENT_INSTANCE_2_RESOURCE_ADDRESS resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2002 (DELETED) <b>}</b>	IUT → AE

TP/oneM2M/CSE/DMR/DEL/BO/008

<b>TP Id</b>	TP/oneM2M/CSE/DMR/DEL/BO/008	
<b>Test objective</b>	Check that the IUT rejects the DELETE request of a latest resource in a container resource that has no direct child contentInstance resources.	
<b>Reference</b>	TS-0001 10.2.22.2, TS-0004 7.4.28.2.5	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> a container resource <b>containing</b> <b>no</b> contentInstance resources <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid DELETE Request <b>from</b> AE <b>containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS/la <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4004 (NOT_FOUND) <b>}</b>	IUT → AE



13.CE/DMR/00002/00007

Retrieve and Delete of oldest <contentInstance> resource by <oldest> virtual resource

CREATE OPERATION

TP/oneM2M/CSE/DMR/CRE/BI/011

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BI/011	
<b>Test objective</b>	Check that the IUT rejects the CREATE Request of a container resource named "ol" as a direct child of a container resource	
<b>Reference</b>	TS-0001 10.2.23, TS-0004 7.4.29.2.2 & 7.3.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a container resource CONTAINER_RESOURCE_ADDRESS <b>and</b> the IUT <b>having</b> privileges to perform CREATE operation on the resource CONTAINER_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> container resource <b>containing</b> resourceName attribute <b>set to</b> "ol" <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the container resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4005 (OPERATION_NOT_ALLOWED) <b>}</b>	IUT → AE

RETRIEVE OPERATION

TP/oneM2M/CSE/DMR/RET/BV/010

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BV/010	
<b>Test objective</b>	Check that the IUT accepts the RETRIEVE Request of the oldest contentInstance target to a <container> resource	
<b>Reference</b>	TS-0001 10.2.23.1, TS-0004 7.4.29.2.3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE, PICS_IN_PROFILE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a container resource <b>containing</b> CONTENT_INSTANCE_1 contentInstance resource <b>and</b> CONTENT_INSTANCE_2 contentInstance resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the container resource <b>and</b> creationTime attribute of CONTENT_INSTANCE_1 < creationTime attribute of CONTENT_INSTANCE_2 <b>}</b>	



	Test events	Direction
Expected behaviour	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS/ol <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> contentInstance resource <b>containing</b> resourceName attribute <b>set to</b> CONTENT_INSTANCE_1 <b>}</b>	IUT → AE

TP/oneM2M/CSE/DMR/RET/BO/011

TP Id	TP/oneM2M/CSE/DMR/RET/BO/011	
Test objective	Check that the IUT rejects the RETRIEVE Request of a oldest resource target to a container resource that has no direct child contentInstance resources.	
Reference	TS-0001 10.2.23.1, TS-0004 7.4.29.2.3	
Config Id	CF01	
PICS Selection	PICS_CSE	
Initial conditions	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> a container resource <b>containing</b> <b>no</b> direct child contentInstance resources <b>}</b>	
Expected behaviour	Test events	Direction
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS/ol <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4004 (NOT_FOUND) <b>}</b>	IUT → AE

UPDATE OPERATION

TP/oneM2M/CSE/DMR/UPD/BI/013

TP Id	TP/oneM2M/CSE/DMR/UPD/BI/013	
Test objective	Check that the IUT rejects the UPDATE Request of an oldest resource as a direct child of a <container> resource with error "OPERATION_NOT_ALLOWED"	
Reference	TS-0001 10.2.23, TS-0004 7.4.29.2.4 & 7.3.2.1	
Config Id	CF01	
PICS Selection	PICS_CSE	

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> a container resource <b>containing</b> contentInstance resource(s) <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS/ol <b>and</b> From <b>set to</b> AE_ID <b>and</b> <b>no</b> Content <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not update</b> the CONTAINER_RESOURCE_ADDRESS/ol resource <b>and</b> the IUT <b>sends</b> a Response <b>containing</b> Response Status Code <b>set to</b> 4005 (OPERATION_NOT_ALLOWED) <b>}</b>	IUT → AE

## DELETE OPERATION

TP/oneM2M/CSE/DMR/DEL/BV/009

<b>TP Id</b>	TP/oneM2M/CSE/DMR/DEL/BV/009	
<b>Test objective</b>	Check that the IUT accepts the DELETE Request of the oldest contentInstance resource target to a container resource	
<b>Reference</b>	TS-0001 10.2.23.2, TS-0004 7.4.29.2.5	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE, PICS_IN_PROFILE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a container resource <b>containing</b> CONTENT_INSTANCE_1 contentInstance resource <b>and</b> CONTENT_INSTANCE_2 contentInstance resource <b>and</b> the AE <b>having</b> privileges to perform DELETE operation on the container resource <b>and</b> creationTime attribute of CONTENT_INSTANCE_1 < creationTime attribute of CONTENT_INSTANCE_2 <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid DELETE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>deletes</b> the CONTENT_INSTANCE_1_RESOURCE_ADDRESS resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2002 (DELETED) <b>}</b>	IUT → AE

TP/oneM2M/CSE/DMR/DEL/BO/010

<b>TP Id</b>	TP/oneM2M/CSE/DMR/DEL/BO/010
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<b>Test objective</b>	Check that the IUT rejects the DELETE request of a oldest resource in a container resource that has no direct child contentInstance resources.	
<b>Reference</b>	TS-0001 10.2.23.2, TS-0004 7.4.29.2.5	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> a container resource <b>containing</b> <b>no</b> contentInstance resources <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS/ol <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4004 (NOT_FOUND) <b>}</b>	IUT → AE

#### 14.<Isolated-Test-Purposes>

Editor's Note: There are few test purposes listed as following cannot be clarified into any feature category in neither current document nor TS-0031[5]. TP/oneM2M/CSE/DMR/CRE/BV/016

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/016	
<b>Test objective</b>	Check that the IUT accepts the creation of a <i>RESOURCE_TYPE</i> resource with the optional attribute announceTo provided	
<b>Reference</b>	TS-0001 10.2.18.4, TS-0001 9.6.1.3.2-1 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created and announced</b> the PARENT_RESOURCE to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource PARENT_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>}</b>	IUT ← AE

**then {**

The IUT **sends** a valid CREATE Request **containing**

To **set to** ANNC\_TARGET\_CSE\_ADDRESS **and**

Content **containing**

*RESOURCE\_TYPE* announced variant resource **containing**

MA (mandatory) attributes}

IUT → CSE

TP Id	RESOURCE_TYPE	PICS
TP/oneM2M/CSE/DMR/CRE/BV/016_01	accessControlPolicy	PICS_IN_PROFILE
TP/oneM2M/CSE/DMR/CRE/BV/016_02	container	PICS_IN_PROFILE
TP/oneM2M/CSE/DMR/CRE/BV/016_03	contentInstance	PICS_IN_PROFILE
TP/oneM2M/CSE/DMR/CRE/BV/016_04	group	
TP/oneM2M/CSE/DMR/CRE/BV/016_05	locationPolicy	
TP/oneM2M/CSE/DMR/CRE/BV/016_06	mgmtObj	
TP/oneM2M/CSE/DMR/CRE/BV/016_07	node	
TP/oneM2M/CSE/DMR/CRE/BV/016_08	schedule	

TP/oneM2M/CSE/DMR/CRE/BV/017

TP Id	TP/oneM2M/CSE/DMR/CRE/BV/017	
<b>Test objective</b>	Check that the IUT accepts the creation of a <i>RESOURCE_TYPE</i> resource with the optional attribute announceAttribute provided	
<b>Reference</b>	TS-0001 10.2.18.4, TS-0001 9.6.1.3.2-1 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created and announced</b> the PARENT_RESOURCE to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource PARENT_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> OA_ATTRIBUTE attribute <b>set to</b> VALUE <b>and</b> announceAttribute attribute <b>set to</b> OA_ATTRIBUTE <b>and</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>}</b>	IUT ← AE
	<b>then {</b> The IUT <b>sends</b> a valid CREATE Request <b>containing</b> To <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b> MA (mandatory) attributes <b>and</b> OA_ATTRIBUTE attribute <b>set to</b> VALUE <b>}</b>	IUT → CSE

TP Id	RESOURCE_TYPE	PICS
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TP/oneM2M/CSE/CRE/DMR/BV/017_01	accessControlPolicy	PICS_IN_PROFILE
TP/oneM2M/CSE/CRE/DMR/BV/017_02	container	PICS_IN_PROFILE
TP/oneM2M/CSE/CRE/DMR/BV/017_03	contentInstance	PICS_IN_PROFILE
TP/oneM2M/CSE/CRE/DMR/BV/017_04	group	
TP/oneM2M/CSE/CRE/DMR/BV/017_05	locationPolicy	
TP/oneM2M/CSE/CRE/DMR/BV/017_06	mgmtObj	
TP/oneM2M/CSE/CRE/DMR/BV/017_07	node	
TP/oneM2M/CSE/CRE/DMR/BV/017_08	schedule	

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BV/001	
<b>Test objective</b>	Check that the IUT returns successfully the TARGET_RESOURCE_ADDRESS resource	
<b>Reference</b>	TS-0001 10.1.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE under the AE resource <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource representation <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/RET/BV/001_01	TS-0001 10.2.4.2	3 (container)
TP/oneM2M/CSE/DMR/RET/BV/001_02	TS-0001 10.2.7.3	9 (group)
TP/oneM2M/CSE/DMR/RET/BV/001_03	TS-0001 10.2.21.2	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/RET/BV/001_04		18 (schedule)
TP/oneM2M/CSE/DMR/RET/BV/001_05	TS-0001 10.2.13.3	15 (pollingChannel)
TP/oneM2M/CSE/DMR/RET/BV/001_06	TS-0001 10.2.11.3	23 (subscription)

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BO/002	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to retrieve the resource TARGET_RESOURCE_ADDRESS which does not exist	
<b>Reference</b>	TS-0001 10.1.2 - item 13)	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having not yet created</b> a resource TARGET_RESOURCE_ADDRESS <b>}</b>	

Expected behaviour	Test events	Direction
	<pre> when {   the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b>   To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>   From <b>set to</b> AE_ID <b>and</b>   <b>no</b> Content } </pre>	IUT ← AE
	<pre> then {   the IUT <b>sends</b> a valid Response <b>containing</b>   Response Status Code <b>set to</b> 4004 (NOT_FOUND) } </pre>	IUT → AE







<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BV/014	
<b>Test objective</b>	Check that the IUT updates successfully the value of the optional attribute <i>OPTIONAL_ATTRIBUTE</i> of the <i>RESOURCE_TYPE</i> resource.	
<b>Reference</b>	TS-0001 10.1.3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE, PICS_IN_PROFILE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> the <i>RESOURCE_TYPE</i> resource <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource <i>TARGET_RESOURCE_ADDRESS</i> <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from AE containing</b> To <b>set to</b> <i>TARGET_RESOURCE_ADDRESS</i> <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> <i>OPTIONAL_ATTRIBUTE</i> attribute <b>set to</b> VALUE <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>updates</b> the <i>TARGET_RESOURCE_ADDRESS</i> resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> <i>OPTIONAL_ATTRIBUTE</i> attribute <b>set to</b> VALUE <b>}</b>	IUT → AE

TP Id	Reference	OPTIONAL_ATTRIBUTE	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/UPD/BV/014_01	TS-0001 9.6.1.3.2-1	accessControlPolicyIDs	container
TP/oneM2M/CSE/DMR/UPD/BV/014_02	TS-0001 9.6.1.3.1-1	expirationTime	container
TP/oneM2M/CSE/DMR/UPD/BV/014_03	TS-0001 9.6.1.3.2-1	labels	container
TP/oneM2M/CSE/DMR/UPD/BV/014_04	TS-0001 9.6.6-2	maxNrOfInstances	container
TP/oneM2M/CSE/DMR/UPD/BV/014_05	TS-0001 9.6.6-2	maxByteSize	container
TP/oneM2M/CSE/DMR/UPD/BV/014_06	TS-0001 9.6.6-2	maxInstanceAge	container
TP/oneM2M/CSE/DMR/UPD/BV/014_07	TS-0001 9.6.6-2	ontologyRef	container
TP/oneM2M/CSE/DMR/UPD/BV/014_08	TS-0001 9.6.1.3.1-1	expirationTime	accessControlPolicy
TP/oneM2M/CSE/DMR/UPD/BV/014_09	TS-0001 9.6.1.3.2-1	labels	accessControlPolicy
TP/oneM2M/CSE/DMR/UPD/BV/014_10	TS-0001 9.6.2-2	Privileges	accessControlPolicy
TP/oneM2M/CSE/DMR/UPD/BV/014_11	TS-0001 9.6.2-2	selfPrivileges	accessControlPolicy
TP/oneM2M/CSE/DMR/UPD/BV/014_12	TS-0001 9.6.1.3.2-1	accessControlPolicyIDs	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_13	TS-0001 9.6.1.3.1-1	expirationTime	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_14	TS-0001 9.6.1.3.2-1	labels	subscription

TP/oneM2M/CSE/DMR/UPD/BV/014_15	TS-0001 9.6.8-2	eventNotificationCriteria	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_16	TS-0001 9.6.8-2	expirationCounter	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_17	TS-0001 9.6.8-2	groupID	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_18	TS-0001 9.6.8-2	notificationForwardingURI	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_19	TS-0001 9.6.8-2	batchNotify	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_20	TS-0001 9.6.8-2	rateLimit	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_21	TS-0001 9.6.8-2	pendingNotification	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_22	TS-0001 9.6.8-2	notificationStoragePriority	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_23	TS-0001 9.6.8-2	latestNotify	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_24	TS-0001 9.6.8-2	notificationContentType	subscription
TP/oneM2M/CSE/DMR/UPD/BV/014_25	TS-0001 9.6.8-2	notificationEventCat	subscription

TP/oneM2M/CSE/DMR/UPD/BV/015

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BV/015	
<b>Test objective</b>	Check that the IUT updates successfully the value of the announceTo optional attribute of the <i>RESOURCE_TYPE</i> resource.	
<b>Reference</b>	TS-0001 10.2.18.4, TS-0001 9.6.1.3.2-1 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF02	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> the PARENT_RESOURCE resource <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  announceTo attribute <b>set to NULL</b>  <b>and</b> the IUT <b>having announced</b> the PARENT_RESOURCE resource  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource  TARGET_RESOURCE_ADDRESS  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request <b>from AE containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  the IUT <b>sends</b> a valid CREATE Request <b>containing</b>  To <b>set</b> ANNC_TARGET_CSE_ADDRESS <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b>  MA (mandatory) attributes  <b>}</b></p>	IUT → CSE

<b>TP Id</b>	<b>RESOURCE_TYPE</b>
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TP/oneM2M/CSE/DMR/UPD/BV/015_01	accesControlPolicy
TP/oneM2M/CSE/DMR/UPD/BV/015_02	container
TP/oneM2M/CSE/DMR/UPD/BV/015_03	group
TP/oneM2M/CSE/DMR/UPD/BV/015_04	locationPolicy
TP/oneM2M/CSE/DMR/UPD/BV/015_05	mgmtObj
TP/oneM2M/CSE/DMR/UPD/BV/015_06	node
TP/oneM2M/CSE/DMR/UPD/BV/015_07	schedule

TP/oneM2M/CSE/DMR/UPD/BV/016

<b>TP Id</b>	TP/oneM2M/CSE/DMR/UPD/BV/016	
<b>Test objective</b>	Check that the IUT updates successfully the value of the announcedAttribute optional attribute of the <i>RESOURCE_TYPE</i> resource.	
<b>Reference</b>	TS-0001 10.2.18.8, TS-0001 9.6.1.3.2-1 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a <i>RESOURCE_TYPE</i> resource <b>containing</b>  <i>OA_ATTRIBUTE</i> attribute <b>set to</b> VALUE <b>and</b>  announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b>  announcedAttribute attribute <b>set to</b> NULL  <b>and</b> the IUT <b>having announced</b> the <i>RESOURCE_TYPE</i> resource to the announcement target CSE  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  announcedAttribute attribute <b>set to</b> <i>OA_ATTRIBUTE</i>  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  The IUT <b>sends</b> a valid UPDATE Request <b>containing</b>  To <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b>  <i>OA_ATTRIBUTE</i> attribute <b>set to</b> VALUE  <b>}</b></p>	IUT → CSE

TP Id	RESOURCE_TYPE	OA_ATTRIBUTE
TP/oneM2M/CSE/DMR/UPD/BV/016_01	container	maxByteSyze
TP/oneM2M/CSE/DMR/UPD/BV/016_02	group	memberType
TP/oneM2M/CSE/DMR/UPD/BV/016_03	locationPolicy	locationContainerID
TP/oneM2M/CSE/DMR/UPD/BV/016_04	mgmtObj	description

TP/oneM2M/CSE/DMR/UPD/BV/016_05	node	hostedCSELink
TP/oneM2M/CSE/DMR/UPD/BV/016_06	schedule	scheduleElement



## 4. Subscription and Notification (SUB)

### 1. CE/SUB/00001/00001

The Support of <subscription> resource with attributes multiplicity equals 1[1]

TP/oneM2M/CSE/DMR/CRE/BV/001\_06  
 TP/oneM2M/CSE/SUB/CRE/BV/001  
 TP/oneM2M/CSE/DMR/CRE/BV/015\_16  
 TP/oneM2M/CSE/DMR/RET/BV/001\_06  
 TP/oneM2M/CSE/DMR/RET/BV/013\_14  
 TP/oneM2M/CSE/DMR/UPD/BV/014\_13  
 TP/oneM2M/CSE/DMR/DEL/BV/001\_06  
 TP/oneM2M/CSE/DMR/CRE/BV/003\_06  
 TP/oneM2M/CSE/DMR/DEL/BV/004\_06  
 TP/oneM2M/CSE/DMR/UPD/BV/018\_11  
 TP/oneM2M/CSE/DMR/UPD/BV/018\_12  
 TP/oneM2M/CSE/DMR/UPD/BV/018\_13  
 TP/oneM2M/CSE/SUB/BV/001

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/001	
<b>Test objective</b>	Check that the IUT rejects the creation of the <subscription> resource when the target subscribed-to <i>RESOURCE_TYPE</i> resource is not subscribable.	
<b>Reference</b>	TS-0001 10.2.11.2 & TS-0004 7.4.8.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a resource PARENT_RESOURCE_ADDRESS <b>allowing</b> the AE to perform CREATE operation <b>and</b> the IUT <b>having</b> a resource PARENT_RESOURCE_ADDRESS <b>not being</b> subscribable <i>RESOURCE_TYPE</i> resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 23 (subscription) <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> subscription resource representation <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the subscription resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 5203 (TARGET_NOT_SUBSCRIBABLE) <b>and</b> <b>no</b> Content <b>}</b>	IUT → AE



TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/SUB/BV/001_01	TS-0001 9.6.7	4 (contentInstance)
TP/oneM2M/CSE/SUB/BV/001_02	TS-0001 9.6.8	23 (subscription)

## 2. CE/SUB/00001/00002

Support the *labels* attribute of <subscription> resource.

TP/oneM2M/CSE/DMR/CRE/BV/015\_17

TP/oneM2M/CSE/DMR/UPD/BV/014\_14

TP/oneM2M/CSE/DMR/UPD/BV/017\_21

## 3. CE/SUB/00001/00003

Support the *creator* attribute of <subscription> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_30

TP/oneM2M/CSE/SUB/BV/010

TP Id	TP/oneM2M/CSE/SUB/BV/010	
<b>Test objective</b>	Check that the IUT stores Originator ID in the notification creator attribute when a <SUBSCRIPTION> creation request which needs verification is received and the notificationURI is not the Originator.	
<b>Reference</b>	TS-0001 10.2.12.1 & TS-0004 7.4.9.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE1 <b>and</b> the IUT <b>having registered</b> the AE2 <b>and</b> the AE1 <b>having created</b> a <subscribed-to type> <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE1 <b>containing</b> To <b>set to</b> SUBSCRIBED_TO_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE1_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 23 (subscription) <b>and</b> Content <b>containing</b> subscription resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>}</b>	IUT ← AE1
	<b>then {</b> the IUT <b>sends</b> a valid NOTIFY Request <b>containing</b> Content <b>containing</b> notification message <b>containing</b> verificationRequest attribute <b>set to</b> TRUE <b>and</b> creator attribute <b>set to</b> AE1_RESOURCE_ADDRESS <b>}</b>	IUT → AE2

## 4. CE/SUB/00001/00004

Support the *subscriberURI* attribute of <subscription> resource



<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/017	
<b>Test objective</b>	Check that the IUT sends a Notify request to the AE2_RESOURCE_ADDRESS of the subscriberURI attribute when the SUBSCRIPTION_RESOURCE_ADDRESS <subscription> resource is deleted	
<b>Reference</b>	TS-0001 9.6.8 & TS-0004 7.5.1.2.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE1 <b>and</b> the IUT <b>having registered</b> the AE2 <b>and</b> the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> subscription resource <b>containing</b> subscriberURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid DELETE Request <b>from</b> AE1 <b>containing</b> To <b>set to</b> SUBSCRIPTION_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE1_RESOURCE_ADDRESS <b>}</b>	IUT ← AE1
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2002 (DELETED) <b>and</b> the IUT <b>sends</b> a NOTIFY Request <b>containing</b> Content <b>containing</b> notification message <b>containing</b> subscriptionDeletion attribute <b>set to</b> TRUE <b>and</b> subscriptionReference attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>}</b>	IUT → AE1  IUT → AE2

5. CE/SUB/00002/00001

Support the *expirationCounter* attribute of <subscription> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_19

TP/oneM2M/CSE/DMR/UPD/BV/014\_16

TP/oneM2M/CSE/DMR/UPD/BV/017\_23

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/013	
<b>Test objective</b>	Check that the IUT decreases the expirationCounter attribute of a subscription resource when the Hosting CSE of the subscribed-to resource successfully sends the notification request to subscriber resource(s)	
<b>Reference</b>	TS-0001 10.2.11.2 & TS-0004 7.5.1.2.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE1 <b>and</b> the IUT <b>having registered</b> the AE2 <b>and</b> the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME <b>set to</b> VALUE_1 <b>and</b> subscription child resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> expirationCounter attribute <b>set to</b> MAX_NUMBER_NOTIFICATION <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE1 <b>containing</b> To <b>set to</b> SUBSCRIBED_TO_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE1_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME attribute <b>set to</b> VALUE_2 <b>}</b>	IUT ← AE1
	<b>then {</b> the IUT <b>decreases</b> the expirationCounter attribute of the subscription resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b> the IUT <b>sends</b> a NOTIFY Request <b>}</b>	IUT → AE1 IUT → AE2

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/014	
<b>Test objective</b>	Check that the IUT deletes the subscription resource when the the expirationCounter meets zero	
<b>Reference</b>	TS-0001 10.2.11.2 & TS-0004 7.5.1.2.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE1 <b>and</b> the IUT <b>having registered</b> the AE2 <b>and</b> the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME <b>set to</b> VALUE_1 <b>and</b> subscription child resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> expirationCounter attribute <b>set to</b> 1 <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE1 <b>containing</b> To <b>set to</b> SUBSCRIBED_TO_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE1_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME attribute <b>set to</b> VALUE_2 <b>}</b>	IUT ← AE1
	<b>then {</b> the IUT <b>decreases</b> the expirationCounter attribute of the subscription resource <b>and</b> the IUT <b>deletes</b> the subscription resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b> the IUT <b>sends</b> a NOTIFY Request <b>}</b>	IUT → AE1 IUT → AE2

6. CE/SUB/00002/00002

Support the *batchNotify* attribute of <subscription> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_22

TP/oneM2M/CSE/DMR/UPD/BV/014\_19

TP/oneM2M/CSE/DMR/UPD/BV/017\_26

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/018	
<b>Test objective</b>	Check that the IUT sends aggregated notification to the subscriber resource when the number value of the batchNotify attribute is set to GROUP_LIMIT and when this number have been reached	
<b>Reference</b>	TS-0001 10.2.12.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE1  <b>and</b> the IUT <b>having registered</b> the AE2  <b>and</b> the AE1 <b>having created</b> a &lt;subscribed-to type&gt; resource <b>containing</b>  ATTRIBUTE_NAME <b>set to</b> VALUE_1 <b>and</b>  subscription child resource <b>containing</b>  notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b>  batchNotify attribute <b>containing</b>  number attribute <b>set to</b> GROUP_LIMIT <b>and</b>  duration attribute <b>set to</b> TIME_LIMIT  <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource  <b>and</b> the IUT <b>having</b> received (GROUP_LIMIT – 1) valid UPDATE Requests <b>from</b> AE1_RESOURCE_ADDRESS <b>to</b> subscribed-to resource  <b>and</b> the timer has <b>not reached</b> the TIME_LIMIT duration value  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE1 <b>containing</b>  To <b>set to</b> SUBSCRIBED_TO_RESOURCE_ADDRESS <b>and</b>  From <b>set to</b> AE1_RESOURCE_ADDRESS <b>and</b>  Content <b>containing</b>  &lt;subscribed-to type&gt; resource <b>containing</b>  ATTRIBUTE_NAME attribute <b>set to</b> VALUE_N  <b>}</b></p>	IUT ← AE1
	<p><b>then {</b>  the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> 2004 (UPDATED)  <b>and</b> the IUT <b>sends</b> a NOTIFY Request <b>containing</b>  Content <b>containing</b>  aggregatedNotification message <b>containing</b>  GROUP_LIMIT notification messages  <b>}</b></p>	IUT → AE1 IUT → AE2

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/019	
<b>Test objective</b>	Check that the IUT sends aggregated notification to the subscriber resource when the duration value of the batchNotify attribute is set to TIME_LIMIT and when this timer expires	
<b>Reference</b>	TS-0001 10.2.12.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE1 <b>and</b> the IUT <b>having registered</b> the AE2 <b>and</b> the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME attribute <b>set to</b> VALUE_1 <b>and</b> subscription child resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> batchNotify attribute <b>containing</b> number attribute <b>set to</b> GROUP_LIMIT <b>and</b> duration attribute <b>set to</b> TIME_LIMIT <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>and</b> the IUT <b>having</b> received NUMBER_OF_REQUEST valid UPDATE Requests <b>from</b> AE1_RESOURCE_ADDRESS <b>to</b> subscribed-to resource <b>and</b> NUMBER_OF_REQUEST < GROUP_LIMIT }	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the timer expires after the TIME_LIMIT duration value <b>}</b>	IUT ← AE1
	<b>then {</b> The IUT <b>sends</b> a NOTIFY Request <b>containing</b> Content <b>containing</b> aggregatedNotification message <b>containing</b> NUMBER_OF_REQUEST notification messages <b>}</b>	IUT → AE2

7. CE/SUB/00002/00003

Support the *rateLimit* attribute of <subscription> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_23

TP/oneM2M/CSE/DMR/UPD/BV/014\_20

TP/oneM2M/CSE/DMR/UPD/BV/017\_27

8. CE/SUB/00002/00004

Support the *preSubscriptionNotify* attribute of <subscription> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_24

9. CE/SUB/00002/00005

Support the *pendingNotification* attribute of <subscription> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_25

TP/oneM2M/CSE/DMR/UPD/BV/014\_21

TP/oneM2M/CSE/DMR/UPD/BV/017\_28

TP/oneM2M/CSE/DMR/UPD/BV/017\_31

10.CE/SUB/00002/00006

Support the *notificationStoragePriority* attribute of <subscription> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_26

TP/oneM2M/CSE/DMR/UPD/BV/014\_22

TP/oneM2M/CSE/DMR/UPD/BV/017\_29

11.CE/SUB/00002/00007

Support the *latestNotify* attribute of <subscription> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_27

TP/oneM2M/CSE/DMR/UPD/BV/014\_23

TP/oneM2M/CSE/DMR/UPD/BV/017\_30

TP/oneM2M/CSE/SUB/BV/020

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/020	
<b>Test objective</b>	Check that the IUT sends the latest notification to the subscriber resource when latestNotify is set to TRUE, the number value of the batchNotify attribute is set to GROUP_LIMIT and when this number have been reached	
<b>Reference</b>	TS-0001 10.2.12.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE1 <b>and</b> the IUT <b>having registered</b> the AE2 <b>and</b> the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME <b>set to</b> VALUE_1 <b>and</b> subscription child resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> latestNotify attribute <b>set to</b> TRUE <b>and</b> batchNotify attribute <b>containing</b> number attribute <b>set to</b> GROUP_LIMIT <b>and</b> duration attribute <b>set to</b> TIME_LIMIT <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>and</b> the IUT <b>having</b> received (GROUP_LIMIT – 1) valid UPDATE Requests <b>from</b> AE1_RESOURCE_ADDRESS <b>to</b> subscribed-to resource <b>and</b> the timer has <b>not reached</b> the TIME_LIMIT duration value <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE1 <b>containing</b> To <b>set to</b> SUBSCRIBED_TO_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE1_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME attribute <b>set to</b> VALUE_N <b>}</b>	IUT ← AE1



<pre> then {   the IUT <b>sends</b> a valid Response <b>containing</b>     Response Status Code <b>set to</b> 2004 (UPDATED)   <b>and</b> the IUT <b>sends</b> a NOTIFY Request <b>contaning</b>     Content <b>containing</b>       the <b>latest</b> notification message <b>containing</b>         notificationEvent attribute <b>containing</b>           representation attribute <b>containing</b>             &lt;subscribed-to type&gt; resource <b>containing</b>               All attributes } </pre>	<p>IUT → AE1</p> <p>IUT → AE2</p>
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<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/021	
<b>Test objective</b>	Check that the IUT sends the latest notification to the subscriber resource when latestNotify is set to TRUE, the duration value of the batchNotify attribute is set to TIME_LIMIT and when this timer expires	
<b>Reference</b>	TS-0001 10.2.12.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" and the IUT <b>having registered</b> the AE1 and the IUT <b>having registered</b> the AE2 and the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME <b>set to</b> VALUE_1 <b>and</b> subscription child resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> latestNotify attribute <b>set to</b> TRUE <b>and</b> batchNotify attribute <b>containing</b> number attribute <b>set to</b> GROUP_LIMIT <b>and</b> duration attribute <b>set to</b> TIME_LIMIT and the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource and the IUT <b>having</b> received NUMBER_OF_REQUEST valid UPDATE Requests <b>from</b> AE1_RESOURCE_ADDRESS to subscribed-to resource and NUMBER_OF_REQUEST < GROUP_LIMIT <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the timer expires after the TIME_LIMIT duration value <b>}</b>	IUT ← AE1
	<b>then {</b> The IUT <b>sends</b> a NOTIFY Request <b>containing</b> Content <b>containing</b> the <b>latest</b> notification message <b>containing</b> notificationEvent attribute <b>containing</b> representation attribute <b>containing</b> <subscribed-to type> resource <b>containing</b> All attributes <b>}</b>	IUT → AE2

12.CE/SUB/00002/00008

Support the *notificationContent* attribute of <subscription> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_28

TP/oneM2M/CSE/DMR/UPD/BV/014\_24

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/011	
<b>Test objective</b>	Check that the IUT sends a Notify request to the subscriber resource when the notificationContentType attribute is set to "modified attributes" and an update operation has been performed on the subscribed-to resource	
<b>Reference</b>	TS-0001 10.2.11.2 & TS-0004 7.5.1.2.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE1 <b>and</b> the IUT <b>having registered</b> the AE2 <b>and</b> the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME <b>set to</b> VALUE_1 <b>and</b> subscription child resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> notificationContentType attribute <b>set to</b> 2 (modified attributes) <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE1 <b>containing</b> To <b>set to</b> SUBSCRIBED_TO_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE1_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME attribute <b>set to</b> VALUE_2 <b>}</b>	IUT ← AE1
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b> the IUT <b>sends</b> a NOTIFY Request <b>containing</b> Content <b>containing</b> notification message <b>containing</b> notificationEvent attribute <b>containing</b> representation attribute <b>containing</b> <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME attribute <b>set to</b> VALUE_2 <b>}</b>	IUT → AE1 IUT → AE2

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/012	
<b>Test objective</b>	Check that the IUT sends a Notify request to the subscriber resource when the notificationContentType attribute is set to "ResourceID" and an update operation has been performed on the subscribed-to resource	
<b>Reference</b>	TS-0001 10.2.11.2 & TS-0004 7.5.1.2.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" and the IUT <b>having registered</b> the AE1 and the IUT <b>having registered</b> the AE2 and the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME <b>set to</b> VALUE_1 <b>and</b> subscription child resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> notificationContentType attribute <b>set to</b> 3 (ResourceID) and the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE1 <b>containing</b> To <b>set to</b> SUBSCRIBED_TO_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE1_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME attribute <b>set to</b> VALUE_2 <b>}</b>	IUT ← AE1
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) and the IUT <b>sends</b> a NOTIFY Request <b>containing</b> Content <b>containing</b> notification message <b>containing</b> notificationEvent attribute <b>containing</b> representation attribute <b>containing</b> <subscribed-to type> resource <b>containing</b> subscribed-to ResourceID <b>}</b>	IUT → AE1 IUT → AE2

13.CE/SUB/00002/00009

Support the *notificationEventCat* attribute of <subscription> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_29

TP/oneM2M/CSE/DMR/UPD/BV/014\_25

TP/oneM2M/CSE/DMR/UPD/BV/017\_32

14.CE/SUB/00002/00010

Support the *eventNotificationCriteria* attribute of <subscription> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_18

TP/oneM2M/CSE/DMR/UPD/BV/014\_15

TP/oneM2M/CSE/DMR/UPD/BV/017\_22

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/007	
<b>Test objective</b>	Check that the IUT sends a Notify request to the subscriber resource when eventType attribute is set to "Create_of_Direct_Child_Resource" and an create operation has been performed on the subscribed-to resource	
<b>Reference</b>	TS-0001 9.6.8-3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE1 <b>and</b> the IUT <b>having registered</b> the AE2 <b>and</b> the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> subscription child resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> eventNotificationCriteria attribute <b>containing</b> notificationEventType <b>set to</b> 3 (Create_of_Direct_Child_Resource) <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE1 <b>containing</b> To <b>set to</b> SUBSCRIBED_TO_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE1_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> CHILD_RESOURCE_TYPE resource <b>containing</b> resourceName attribute <b>set to</b> NAME <b>}</b>	IUT ← AE1
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> the IUT <b>sends</b> a NOTIFY Request <b>containing</b> Content <b>containing</b> Notification message <b>containing</b> notificationEvent attribute <b>containing</b> representation attribute <b>containing</b> CHILD_RESOURCE_TYPE resource <b>containing</b> All attributes <b>}</b>	IUT → AE1 IUT → AE2

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/008	
<b>Test objective</b>	Check that the IUT sends a Notify request to the subscriber resource when eventType attribute is set to "Delete_of_Resource" and an delete operation has been performed the subscribed-to resource	
<b>Reference</b>	TS-0001 9.6.8-3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE1 <b>and</b> the IUT <b>having registered</b> the AE2 <b>and</b> the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> subscription child resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> eventNotificationCriteria attribute <b>containing</b> notificationEventType <b>set to</b> 2 (Delete_of_Resource) <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid DELETE Request <b>from</b> AE1 <b>containing</b> To <b>set to</b> SUBSCRIBED_TO_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE1_RESOURCE_ADDRESS <b>}</b>	IUT ← AE1
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2002 (DELETED) <b>and</b> the IUT <b>sends</b> a NOTIFY Request <b>containing</b> Content <b>containing</b> notification message <b>containing</b> notificationEvent attribute <b>containing</b> representation attribute <b>containing</b> <subscribed-to type> resource <b>containing</b> All attributes <b>}</b>	IUT → AE1 IUT → AE2

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/009	
<b>Test objective</b>	Check that the IUT sends a Notify request to the subscriber resource when eventType attribute is set to "Delete_of_Direct_Child_Resource" and an delete operation has been performed on a child resource of the subscribed-to resource	
<b>Reference</b>	TS-0001 9.6.8-3	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE1 <b>and</b> the IUT <b>having registered</b> the AE2 <b>and</b> the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> a CHILD_RESOURCE_ADDRESS child resource <b>and</b> subscription child resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> eventNotificationCriteria attribute <b>containing</b> notificationEventType <b>set to</b> 4 (Delete_of_Direct_Child_Resource) <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid DELETE Request from AE1 <b>containing</b> To <b>set to</b> CHILD_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE1_RESOURCE_ADDRESS <b>}</b>	IUT ← AE1
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2002 (DELETED) <b>and</b> the IUT <b>sends</b> a NOTIFY Request <b>containing</b> Content <b>containing</b> notification message <b>containing</b> notificationEvent attribute <b>containing</b> representation attribute <b>containing</b> CHILD_RESOURCE_TYPE resource <b>containing</b> All attributes <b>}</b>	IUT → AE1 IUT → AE2

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/015	
<b>Test objective</b>	Check that the IUT sends a Notify request to the subscriber resource when the "attribute" condition tag of eventNotificationCriteria attribute is set to ATTRIBUTE_NAME and an update operation has been performed on the subscribed-to resource	
<b>Reference</b>	TS-0001 9.6.8 & TS-0004 7.5.1.2.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE1 <b>and</b> the IUT <b>having registered</b> the AE2 <b>and</b> the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME <b>set to</b> VALUE_1 <b>and</b> subscription child resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> eventNotificationCriteria attribute <b>containing</b> attribute condition tag <b>set to</b> ATTRIBUTE_NAME <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE1 <b>containing</b> To <b>set to</b> SUBSCRIBED_TO_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE1_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME attribute <b>set to</b> VALUE_2 <b>}</b>	IUT ← AE1
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b> the IUT <b>sends</b> a NOTIFY Request <b>containing</b> Content <b>containing</b> notification message <b>containing</b> notificationEvent attribute <b>containing</b> representation attribute <b>containing</b> <subscribed-to type> resource <b>containing</b> All attributes <b>}</b>	IUT → AE1 IUT → AE2



<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/016	
<b>Test objective</b>	Check that the IUT doesn't send a Notify request to the subscriber resource when the "attribute" condition tag of eventNotificationCriteria attribute is set to LIST_OF_ATTRIBUTE and doesn't contain the ATTRIBUTE_NAME attribute updated.	
<b>Reference</b>	TS-0001 9.6.8 & TS-0004 7.5.1.2.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE1 <b>and</b> the IUT <b>having registered</b> the AE2 <b>and</b> the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME <b>set to</b> VALUE_1 <b>and</b> subscription child resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> eventNotificationCriteria attribute <b>containing</b> attribute condition tag <b>set to</b> LIST_OF_ATTRIBUTE <b>containing</b> <b>no</b> ATTRIBUTE_NAME attribute <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE1 <b>containing</b> To <b>set to</b> SUBSCRIBED_TO_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE1_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME attribute <b>set to</b> VALUE_2 <b>}</b>	IUT ← AE1
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b> the IUT <b>doesn't send</b> a NOTIFY Request <b>}</b>	IUT → AE1

15.CE/SUB/00003/00001

Support the *groupID* attribute of <subscription> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_20

TP/oneM2M/CSE/DMR/UPD/BV/014\_17

TP/oneM2M/CSE/DMR/UPD/BV/017\_24

16.CE/SUB/00003/00002

Support the *notificationForwardingURI* attribute of <subscription> resource.

TP/oneM2M/CSE/DMR/CRE/BV/015\_21

TP/oneM2M/CSE/DMR/UPD/BV/014\_18

TP/oneM2M/CSE/DMR/UPD/BV/017\_25

17.CE/SUB/00004/00001

Notify the address indicated in *notificationURI* with notification elements multiplicity equals 1[2]

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/006	
<b>Test objective</b>	Check that the IUT sends Notify request to the subscriber resource when an update operation has been performed on the subscribed-to resource	
<b>Reference</b>	TS-0001 10.2.11.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE1 <b>and</b> the IUT <b>having registered</b> the AE2 <b>and</b> the AE1 <b>having created</b> a <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME <b>set to</b> VALUE_1 <b>and</b> subscription child resource <b>containing</b> notificationURI attribute <b>set to</b> AE2_RESOURCE_ADDRESS <b>and</b> the AE1 <b>having</b> privileges to perform RETRIEVE operation on the subscribed-to resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE1 <b>containing</b> To <b>set to</b> SUBSCRIBED_TO_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE1_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <subscribed-to type> resource <b>containing</b> ATTRIBUTE_NAME <b>set to</b> VALUE_2 <b>}</b>	IUT ← AE1
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b> the IUT <b>sends</b> a NOTIFY Request <b>containing</b> Content <b>containing</b> notification message <b>containing</b> notificationEvent attribute <b>containing</b> representation attribute <b>containing</b> <subscribed-to type> resource <b>containing</b> All attributes <b>}</b>	IUT → AE1 IUT → AE2

18.CE/SUB/00004/00002

Notify with notificationEvent/representation set in the notification

19.CE/SUB/00004/00003

Notify with creator set in the notification

## 5. Group Management (GMG)

### 1. CE/GMG/00001/00001

Support the <group> resource with attributes multiplicity equals 1[1]

TP/oneM2M/CSE/DMR/CRE/BV/001\_02

TP/oneM2M/CSE/DMR/CRE/BV/002\_02

TP/oneM2M/CSE/DMR/CRE/BV/003\_02

TP/oneM2M/CSE/DMR/RET/BV/001\_02

TP/oneM2M/CSE/DMR/RET/BV/013\_05

TP/oneM2M/CSE/DMR/DEL/BV/001\_02

TP/oneM2M/CSE/DMR/DEL/BV/004\_02

TP/oneM2M/CSE/DMR/UPD/BV/018\_14

TP/oneM2M/CSE/DMR/UPD/BV/018\_15

TP/oneM2M/CSE/DMR/UPD/BV/018\_16

TP/oneM2M/CSE/GMG/BV/001

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/001	
<b>Test objective</b>	Check that the IUT rejects the creation of the group resource when member ID exceed max number of members.	
<b>Reference</b>	TS-0001 10.2.7.2 & TS-0004 7.3.13	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a resource PARENT_RESOURCE_ADDRESS <b>allowing</b> the AE to perform CREATE operation <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 9 (group) <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> group resource <b>containing</b> memberIDs attribute <b>set to</b> A_LIST_OF_MEMBER_RESOURCE_IDS <b>and</b> maxNrOfMembers attribute <b>set to</b> MAX_NR_MEMBERS less than the numbers of memerIDs set in <i>memberIDs</i> attribute <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the group resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 6010 (MAX_NUMBER_OF_MEMBER_EXCEEDED) <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/003	
<b>Test objective</b>	Check that the IUT detects the presence of duplicate member IDs during the creation of the <group> resource and removes the duplicate member IDs prior to creation of the <group> resource.	
<b>Reference</b>	TS-0001 10.2.7.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a resource at TARGET_RESOURCE_ADDRESS <b>allowing</b> a child resource type group <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the TARGET_RESOURCE_ADDRESS <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> an valid CREATE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 9 (group) <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> group resource <b>containing</b> memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS, MEMBER_RESOURCE_ADDRESS <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>creates</b> the group resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set</b> 2001 (CREATED) Content <b>containing</b> group resource <b>containing</b> memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS <b>}</b>	IUT → AE

Editor’s Note: Resource type of TARGET\_RESOURCE\_ADDRESS can be <CSEBase>, <AE>, <remoteCSE> and resource type of MEMBER\_RESOURCE\_ADDRESS can be any oneM2M resource type.

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/011	
<b>Test objective</b>	Check that the IUT detects the presence of duplicate member IDs during an update of the <group> resource and removes the duplicate member IDs prior to updating the <group> resource.	
<b>Reference</b>	TS-0001 10.2.7.4, TS-0004 7.4.14.2.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a resource at TARGET_RESOURCE_ADDRESS of type <group> <b>containing</b> memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS_1 <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the TARGET_RESOURCE_ADDRESS <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_1 <b>having</b> resourceType attribute RESOURCE_TYPE_1 <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_2 <b>having</b> resourceType attribute RESOURCE_TYPE_1 <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request from AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> group resource <b>containing</b> memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS_2, MEMBER_RESOURCE_ADDRESS_2 <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>updates</b> the group resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set</b> 2004 (UPDATED) Content <b>containing</b> group resource <b>containing</b> memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS_2 <b>}</b>	IUT → AE

Editor's Note: Resource type of TARGET\_RESOURCE\_ADDRESS can be <CSEBase>, <AE>, <remoteCSE> and resource type of MEMBER\_RESOURCE\_ADDRESS can be any oneM2M resource type.

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/016	
<b>Test objective</b>	Check that the IUT detects when the number of memberIDs exceeds the limitation of maxNrOfMembers.	
<b>Reference</b>	TS-0001 10.2.7.4, TS-0004 7.4.14.2.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	

<p><b>Initial conditions</b></p>	<pre> with {   the IUT <b>being</b> in the "initial state"   <b>and</b> the IUT <b>having registered</b> the AE   <b>and</b> the IUT <b>having</b> a resource at TARGET_RESOURCE_ADDRESS of type group   <b>containing</b>     memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS_1,     MEMBER_RESOURCE_ADDRESS_2     <b>and</b> maxNrOfMembers attribute <b>set to</b> 2   <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the   TARGET_RESOURCE_ADDRESS   <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_1   <b>having</b> resourceType attribute RESOURCE_TYPE_1   <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_2   <b>having</b> resourceType attribute RESOURCE_TYPE_1   <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_3   <b>having</b> resourceType attribute RESOURCE_TYPE_1 } </pre>	
<p><b>Expected behaviour</b></p>	<p style="text-align: center;"><b>Test events</b></p> <pre> <b>when</b> {   the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>   To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>   From <b>set to</b> AE-ID <b>and</b>   Content <b>containing</b>     group resource <b>containing</b>       memberIDs attribute <b>set to</b>         MEMBER_RESOURCE_ADDRESS_1,         MEMBER_RESOURCE_ADDRESS_2,         MEMBER_RESOURCE_ADDRESS_3 }  <b>then</b> {   the IUT <b>does not update</b> the group resource   <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b>   Response Status Code <b>set</b> 6010   (MAX_NUMBER_OF_MEMBER_EXCEEDED) } </pre>	<p style="text-align: center;"><b>Direction</b></p> <p style="text-align: center;">IUT ← AE</p> <p style="text-align: center;">IUT → AE</p>

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/017	
<b>Test objective</b>	Check that the IUT detects when the value provided for maxNrOfMembers attribute is less than the value of the currentNrOfMembers attribute.	
<b>Reference</b>	TS-0001 10.2.7.4, TS-0004 7.4.14.2.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre> with {   the IUT being in the "initial state"   and the IUT having registered the AE   and the IUT having a resource at TARGET_RESOURCE_ADDRESS of type &lt;group&gt;   containing     memberIDs attribute set to MEMBER_RESOURCE_ADDRESS_1,     MEMBER_RESOURCE_ADDRESS_2,     MEMBER_RESOURCE_ADDRESS_3   and maxNrOfMembers attribute set to 3   and the AE having privileges to perform UPDATE operation on the   TARGET_RESOURCE_ADDRESS   and the IUT having a resource at MEMBER_RESOURCE_ADDRESS_1   having resourceType attribute RESOURCE_TYPE_1   and the IUT having a resource at MEMBER_RESOURCE_ADDRESS_2   having resourceType attribute RESOURCE_TYPE_1   and the IUT having a resource at MEMBER_RESOURCE_ADDRESS_3   having resourceType attribute RESOURCE_TYPE_1 } </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when {   the IUT receives a valid UPDATE Request from AE containing   To set to TARGET_RESOURCE_ADDRESS and   From set to AE-ID and   Content containing group resource containing   maxNrOfMembers attribute set to 2 } </pre>	IUT ← AE
	<pre> then {   the IUT does not update the group resource   and the IUT sends a valid Response containing   Response Status Code set 6010   (MAX_NUMBER_OF_MEMBER_EXCEEDED) } </pre>	IUT → AE

## 2. CE/GMG/00001/00002

Support the *labels* attribute of <group> resource

TP/oneM2M/CSE/DMR/UPD/BV/017\_33

## 3. CE/GMG/00001/00003

Support the *creator* attribute of <group> resource

## 4. CE/GMG/00001/00004

Support the *groupName* attribute of <group> resource

TP/oneM2M/CSE/DMR/UPD/BV/017\_36

## 5. CE/GMG/00002/00001

Support the *memberTypeValidated* attribute of <group> resource

6. CE/GMG/00002/00002

Support the validation of member’s resource type and set the *memberTypeValidated* as well as the procedure to update the group according to *consistencyStrategy*

TP/oneM2M/CSE/GMG/BV/002

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/002	
<b>Test objective</b>	Check that the IUT rejects the creation of the group resource when the memberType cannot be retrieved due to lack of privilege.	
<b>Reference</b>	TS-0001 10.2.7.2 & TS-0004 7.3.13	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a resource PARENT_RESOURCE_ADDRESS <b>allowing</b> the AE to perform CREATE operation <b>and</b> the sub-group members <b>being</b> in the "initial state" <b>and</b> the sub-group members <b>having</b> RESOURCE_TYPE <b>containing</b> accessControlPolicyIDs attribute <b>pointing to</b> accessControlPolicy resource <b>containing</b> privileges attribute <b>containing</b> accessControlRule attribute <b>containing</b> accessControlOriginators attribute <b>not indicating</b> AE-ID <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> RESOURCE_TYPE <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> group resource representation <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the group resource <b>and</b> the IUT <b>sends</b> a valid valid Response <b>containing</b> Response Status Code <b>set to</b> 5105 (NO_PRIVILEGE) <b>}</b>	IUT → AE



<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/004	
<b>Test objective</b>	Check that the IUT validates the resource type during the creation of the <group> resource when memberType attribute is not 'mixed'.	
<b>Reference</b>	TS-0001 10.2.7.2, TS-0004 7.4.14.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a resource at TARGET_RESOURCE_ADDRESS <b>allowing</b> a child resource type group <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the TARGET_RESOURCE_ADDRESS <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS <b>having</b> resourceType attribute RESOURCE_TYPE_1 <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 9 (group) <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> group resource <b>containing</b> memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS <b>and</b> memberType attribute <b>set to</b> RESOURCE_TYPE <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>creates</b> the group resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) Content <b>containing</b> group resource <b>containing</b> memberTypeValidated attribute <b>set to</b> TRUE <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/010	
<b>Test objective</b>	Check that the IUT rejects the update of the group resource when the memberType cannot be retrieved due to lack of privilege.	
<b>Reference</b>	TS-0001 10.2.7.4 & TS-0004 7.3.13	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a resource PARENT_RESOURCE_ADDRESS <b>allowing</b> the AE to perform UPDATE operation <b>and</b> the sub-group members <b>being</b> in the "initial state" <b>and</b> the sub-group members <b>having</b> RESOURCE_TYPE <b>containing</b> accessControlPolicyIDs attribute <b>pointing to</b> accessControlPolicy resource <b>containing</b> privileges attribute <b>containing</b> accessControlRule attribute <b>containing</b> accessControlOriginators attribute <b>not indicating</b> AE-ID <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> RESOURCE_TYPE <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> group resource representation <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid valid Response <b>containing</b> Response Status Code <b>set to</b> 5105 (NO_PRIVILEGE) <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/012	
<b>Test objective</b>	Check that the IUT validates the resource type during an UPDATE of the <group> resource when memberType attribute is not 'mixed'.	
<b>Reference</b>	TS-0001 10.2.7.4, TS-0004 7.4.14.2.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having</b> a resource at TARGET_RESOURCE_ADDRESS of type group <b>containing</b>  memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS_1  memberType attribute <b>set to</b> RESOURCE_TYPE_1  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the TARGET_RESOURCE_ADDRESS  <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_1 <b>having</b> resourceType attribute RESOURCE_TYPE_1  <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_2 <b>having</b> resourceType attribute RESOURCE_TYPE_1  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request from AE <b>containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Content <b>containing</b>  group resource <b>containing</b>  memberIDs attribute <b>set to</b>  MEMBER_RESOURCE_ADDRESS_2  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  the IUT <b>updates</b> the group resource  <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set</b> 2004 (UPDATED)  Content <b>containing</b>  group resource <b>containing</b>  memberTypeValidated attribute <b>set to</b> TRUE  <b>}</b></p>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/018	
<b>Test objective</b>	Check that the IUT handles validation of the resource type during an UPDATE of the <group> resource when memberIDs contains a sub-group on a temporarily unreachable Hosting CSE.	
<b>Reference</b>	TS-0001 10.2.7.4, TS-0004 7.4.14.2.4	
<b>Config Id</b>	CF02	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> to the remoteCSE  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having</b> a resource at TARGET_RESOURCE_ADDRESS of type group  <b>containing</b>  memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS_1  <b>and</b> memberType attribute <b>set to</b> RESOURCE_TYPE_1  <b>and</b> memberTypeValidated attribute <b>set to</b> TRUE  <b>and</b> consistencyStrategy attribute <b>set to</b> ABANDON_MEMBER  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the TARGET_RESOURCE_ADDRESS  <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_1 of type RESOURCE_TYPE_1  <b>and</b> the remoteCSE <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_2 of type group  <b>containing</b> memberType attribute <b>set to</b> RESOURCE_TYPE_1  <b>and</b> the remoteCSE <b>having</b> onlineStatus <b>set to</b> False  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Content <b>containing</b>  group resource <b>containing</b>  memberIDs attribute <b>set to</b>  MEMBER_RESOURCE_ADDRESS_1,  MEMBER_RESOURCE_ADDRESS_2  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  the IUT <b>updates</b> the group resource  <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> 2004 (UPDATED)  Content <b>containing</b>  group resource <b>containing</b>  memberTypeValidated attribute <b>set to</b> FALSE <b>and</b>  memberIDs attribute <b>set to</b>  MEMBER_RESOURCE_ADDRESS_1,  MEMBER_RESOURCE_ADDRESS_2  <b>}</b></p>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/019	
<b>Test objective</b>	Check that the IUT handles validation of the resource type during an UPDATE of the group resource when memberIDs contains a sub-group on a a previously unreachable Hosting CSE that has become reachable	
<b>Reference</b>	TS-0001 10.2.7.4, TS-0004 7.4.14.2.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> to the remoteCSE  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having</b> a resource at TARGET_RESOURCE_ADDRESS of type groupz  <b>containing</b>  memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS_1,  MEMBER_RESOURCE_ADDRESS_2  <b>and</b> memberType attribute <b>set to</b> RESOURCE_TYPE_1  <b>and</b> memberTypeValidated attribute <b>set to</b> FALSE  <b>and</b> consistencyStrategy attribute <b>set to</b> ABANDON_MEMBER  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the TARGET_RESOURCE_ADDRESS  <b>and</b> the AE <b>having</b> a subscription to TARGET_RESOURCE_ADDRESS  <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_1 of type RESOURCE_TYPE_1  <b>and</b> the remoteCSE <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_2 of type group  <b>containing</b> memberType attribute <b>set to</b> RESOURCE_TYPE_2  <b>and</b> the remoteCSE <b>having</b> onlineStatus <b>set to</b> False  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request <b>from</b> remoteCSE <b>containing</b>  To <b>set to</b> REMOTE_CSE_ADDRESS <b>and</b>  From <b>set to</b> CSE-ID <b>and</b>  Content <b>containing</b>  remoteCSE resource <b>containing</b>  onlineStatus attribute <b>set to</b> TRUE  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  the IUT <b>sends</b> a NOTIFY Request <b>containing</b>  Content <b>containing</b>  group resource <b>containing</b>  memberTypeValidated attribute <b>set to</b> TRUE  <b>and</b> memberIDs attribute <b>set to</b>  MEMBER_RESOURCE_ADDRESS_1,  MEMBER_RESOURCE_ADDRESS_2  <b>}</b></p>	IUT → AE

7. CE/GMG/00002/00003

Support the consistencyStrategy attribute of <group> resource

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/005	
<b>Test objective</b>	Check that the IUT handles unsuccessful validation of the resource type during the creation of the <group> resource when memberType attribute is not 'mixed' and the consistencyStrategy attribute is SET_MIXED.	
<b>Reference</b>	TS-0001 10.2.7.2, TS-0004 7.4.14.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a resource at TARGET_RESOURCE_ADDRESS <b>allowing</b> a child resource type group <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the TARGET_RESOURCE_ADDRESS <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS <b>having</b> resourceType attribute RESOURCE_TYPE_1 <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 9 (group) <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> group resource <b>containing</b> memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS <b>and</b> memberType attribute <b>set to</b> RESOURCE_TYPE_2 <b>and</b> consistencyStrategy attribute <b>set to</b> SET_MIXED <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>creates</b> the group resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set</b> 2001 (CREATED) Content <b>containing</b> group resource <b>containing</b> memberTypeValidated attribute <b>set to</b> TRUE <b>and</b> memberType attribute <b>set to</b> MIXED <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/006	
<b>Test objective</b>	Check that the IUT handles unsuccessful validation of the resource type during the creation of the <group> resource when memberType attribute is not 'mixed' and the consistencyStrategy attribute is ABANDON_MEMBER..	
<b>Reference</b>	TS-0001 10.2.7.2, TS-0004 7.4.14.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre> with {   the IUT being in the "initial state"   and the IUT having registered the AE   and the IUT having a resource at TARGET_RESOURCE_ADDRESS allowing     a child resource type group   and the AE having privileges to perform CREATE operation on the   TARGET_RESOURCE_ADDRESS   and the IUT having a resource at MEMBER_RESOURCE_ADDRESS_1     having resourceType attribute RESOURCE_TYPE_1   and the IUT having a resource at MEMBER_RESOURCE_ADDRESS_2     having resourceType attribute RESOURCE_TYPE_2 }         </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when {   the IUT receives a valid CREATE Request from AE containing   To set to TARGET_RESOURCE_ADDRESS and   Resource Type set to 9 (group) and   From set to AE-ID and   Content containing   group resource containing   memberIDs attribute set to   MEMBER_RESOURCE_ADDRESS_1,   MEMBER_RESOURCE_ADDRESS_2   and memberType attribute set to RESOURCE_TYPE_1   and consistencyStrategy attribute set to   ABANDON_MEMBER }         </pre>	IUT ← AE
	<pre> then {   the IUT creates the group resource   and the IUT sends a valid Response containing   Response Status Code set 2001 (CREATED)   Content containing   group resource containing   memberTypeValidated attribute set to TRUE   and memberIDs attribute set to   MEMBER_RESOURCE_ADDRESS_1 }         </pre>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/007	
<b>Test objective</b>	Check that the IUT handles unsuccessful validation of the resource type during the creation of the group resource when memberType attribute is not 'mixed' and the consistencyStrategy attribute is ABANDON_GROUP.	
<b>Reference</b>	TS-0001 10.2.7.2, TS-0004 7.4.14.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre> with {   the IUT being in the "initial state"   and the IUT having registered the AE   and the IUT having a resource at TARGET_RESOURCE_ADDRESS allowing     a child resource type &lt;group&gt;   and the AE having privileges to perform CREATE operation on the   TARGET_RESOURCE_ADDRESS   and the IUT having a resource at MEMBER_RESOURCE_ADDRESS_1     having resourceType attribute RESOURCE_TYPE_1   and the IUT having a resource at MEMBER_RESOURCE_ADDRESS_2     having resourceType attribute RESOURCE_TYPE_2 }                     </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when {   the IUT receives a valid CREATE Request from AE containing   To set to TARGET_RESOURCE_ADDRESS and   Resource Type set to 9 (group) and   From set to AE-ID and   Content containing     group resource containing       memberIDs attribute set to         MEMBER_RESOURCE_ADDRESS_1,         MEMBER_RESOURCE_ADDRESS_2     and memberType attribute set to RESOURCE_TYPE_1     and consistencyStrategy attribute set to   ABANDON_GROUP }                     </pre>	IUT ← AE
	<pre> then {   the IUT does not create the group resource   and the IUT sends a valid Response containing   Response Status Code set to   6011(MEMBER_TYPE_INCONSISTENT) }                     </pre>	IUT → AE



<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/013	
<b>Test objective</b>	Check that the IUT handles unsuccessful validation of the resource type during an UPDATE of the <group> resource when memberType attribute is not 'mixed' and the consistencyStrategy attribute is SET_MIXED.	
<b>Reference</b>	TS-0001 10.2.7.4, TS-0004 7.4.14.2.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having</b> a resource at TARGET_RESOURCE_ADDRESS of type group  <b>containing</b>  memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS_1  memberType attribute <b>set to</b> RESOURCE_TYPE_1  memberTypeValidated attribute <b>set to</b> TRUE  consistencyStrategy attribute <b>set to</b> SET_MIXED  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the TARGET_RESOURCE_ADDRESS  <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_1  <b>having</b> resourceType attribute RESOURCE_TYPE_1  <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_2  <b>having</b> resourceType attribute RESOURCE_TYPE_2  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Content <b>containing</b>  group resource <b>containing</b>  memberIDs attribute <b>set to</b>  MEMBER_RESOURCE_ADDRESS_1,  MEMBER_RESOURCE_ADDRESS_2  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  the IUT <b>updates</b> the group resource  <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set</b> 2004 (UPDATED)  Content <b>containing</b>  group resource <b>containing</b>  memberTypeValidated attribute <b>set to</b> TRUE  <b>and</b> memberType attribute <b>set to</b> MIXED  <b>}</b></p>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/014	
<b>Test objective</b>	Check that the IUT handles unsuccessful validation of the resource type during an UPDATE of the group resource when memberType attribute is not 'mixed' and the consistencyStrategy attribute is ABANDON_MEMBER.	
<b>Reference</b>	TS-0001 10.2.7.4, TS-0004 7.4.14.2.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre> with {   the IUT <b>being</b> in the "initial state"   and the IUT <b>having registered</b> the AE   and the IUT <b>having</b> a resource at TARGET_RESOURCE_ADDRESS of type &lt;group&gt;     <b>containing</b>       memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS_1       memberType attribute <b>set to</b> RESOURCE_TYPE_1       memberTypeValidated attribute <b>set to</b> TRUE       consistencyStrategy attribute <b>set to</b> ABANDON_MEMBER   and the AE <b>having</b> privileges to perform UPDATE operation on the   TARGET_RESOURCE_ADDRESS   and the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_1     <b>having</b> resourceType attribute RESOURCE_TYPE_1   and the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_2     <b>having</b> resourceType attribute RESOURCE_TYPE_2 } </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when {   the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>     To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>     From <b>set to</b> AE-ID <b>and</b>     Content <b>containing</b>       group resource <b>containing</b>         memberIDs attribute <b>set to</b>           MEMBER_RESOURCE_ADDRESS_1,           MEMBER_RESOURCE_ADDRESS_2 } </pre>	IUT ← AE
	<pre> then {   the IUT <b>updates</b> the group resource   and the IUT <b>sends</b> a valid Response <b>containing</b>     Response Status Code <b>set</b> 2004 (UPDATED)     Content <b>containing</b> group resource <b>containing</b>       memberTypeValidated attribute <b>set to</b> TRUE       and memberIDs attribute <b>set to</b>         MEMBER_RESOURCE_ADDRESS_1 } </pre>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/015	
<b>Test objective</b>	Check that the IUT handles unsuccessful validation of the resource type during the creation of the group resource when memberType attribute is not 'mixed' and the consistencyStrategy attribute is ABANDON_GROUP.	
<b>Reference</b>	TS-0001 10.2.7.4, TS-0004 7.4.14.2.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a resource at TARGET_RESOURCE_ADDRESS of type <group> <b>containing</b> memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS_1 <b>and</b> memberType attribute <b>set to</b> RESOURCE_TYPE_1 <b>and</b> memberTypeValidated attribute <b>set to</b> TRUE <b>and</b> consistencyStrategy attribute <b>set to</b> ABANDON_GROUP <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the TARGET_RESOURCE_ADDRESS <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_1 <b>having</b> resourceType attribute RESOURCE_TYPE_1 <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS_2 <b>having</b> resourceType attribute RESOURCE_TYPE_2 <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> group resource <b>containing</b> memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS_1, MEMBER_RESOURCE_ADDRESS_2 <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>updates</b> the group resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set</b> 2004 (UPDATED) <b>}</b>	IUT → AE

8. CE/GMG/00003/00001

Fan out of request to all members and aggregate member responses

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/008	
<b>Test objective</b>	Check that IUT generates a request primitive for each resource in memberIDs with no relative address appended to it.	
<b>Reference</b>	TS-0001 10.2.7.7	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having</b> a &lt;group&gt; resource at TARGET_RESOURCE_ADDRESS  <b>containing</b> membersAccessControlPolicyIDs attribute <b>set to</b> allow the AE privileges to perform CREATE  <b>containing</b> memberType attribute <b>set to</b> AE AE <b>and</b>  memberIDs attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS1,  MEMBER_RESOURCE_ADDRESS2  <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS1  <b>containing</b> resourceType <b>set to</b> AE  <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS2  <b>containing</b> resourceType <b>set to</b> AE  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS/fopt <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Resource Type <b>set to</b> 3 (container) <b>and</b>  Content <b>containing</b>  container resource <b>containing</b>  resourceName attribute <b>set to</b> "myContainer"  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set</b> 2000 (OK)  Content <b>containing</b>  aggregatedResponse message <b>containing</b>  Response for MEMBER_RESOURCE_ADDRESS1 <b>and</b>  Response for MEMBER_RESOURCE_ADDRESS2  <b>}</b></p>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/009	
<b>Test objective</b>	Check that IUT generates a request primitive for each resource in memberIDs with a relative address appended to it.	
<b>Reference</b>	TS-0001 10.2.7.7	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having</b> a &lt;group&gt; resource at TARGET_RESOURCE_ADDRESS  <b>containing</b> <i>membersAccessControlPolicyIDs</i> attribute <b>set to</b> allow the AE privileges to perform CREATE <b>containing</b> <i>memberType</i> attribute <b>set to</b> AE  <b>and</b> <i>memberIDs</i> attribute <b>set to</b> MEMBER_RESOURCE_ADDRESS1,  MEMBER_RESOURCE_ADDRESS2  <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS1  <b>containing</b> <i>resourceType</i> attribute <b>set to</b> AE  <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS2  <b>containing</b> <i>resourceType</i> attribute <b>set to</b> AE  <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS1/myCon  <b>containing</b> <i>resourceType</i> attribute <b>set to</b> container  <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS2/myCon  <b>containing</b> <i>resourceType</i> attribute <b>set to</b> container  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS/fanOutPoint/myCon <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Content <b>containing</b>  <i>contentInstance</i> resource  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set</b> 2000 (OK)  Content <b>containing</b>  <i>aggregatedResponse</i> message <b>containing</b>  Response for MEMBER_RESOURCE_ADDRESS1 <b>and</b>  Response for MEMBER_RESOURCE_ADDRESS2  <b>}</b></p>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/024	
<b>Test objective</b>	Check that the IUT generates a request primitive for each resource in memberIDs with a relative address appended to fanOutPoint that includes a virtual resource.	
<b>Reference</b>	TS-0001 10.2.7.7	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre> with {   the IUT being in the "initial state"   and the IUT having registered the AE   and the IUT having a group resource at TARGET_RESOURCE_ADDRESS   containing     membersAccessControlPolicyIDs attribute set to ACP_RESOURCE_ID indicating to allow the AE privileges to perform RETRIEVE operation   and memberType attribute set to 2 (AE)   and memberIDs attribute set to MEMBER_RESOURCE_ADDRESS1,   MEMBER_RESOURCE_ADDRESS2   and the IUT having a resource at MEMBER_RESOURCE_ADDRESS1   containing resourceType set to 2 (AE)   and the IUT having a resource at MEMBER_RESOURCE_ADDRESS2   containing resourceType set to 2 (AE)   and the IUT having a resource at MEMBER_RESOURCE_ADDRESS1/myCon   containing resourceType set to 3 (container)   and the IUT having a resource at MEMBER_RESOURCE_ADDRESS2/myCon   containing resourceType set to 3 (container) } </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when {   the IUT receives a valid RETRIEVE Request from AE containing   To set to ARGET_RESOURCE_ADDRESS/fopt/myCon/la and   From set to AE-ID } </pre>	IUT ← AE
	<pre> then {   the IUT sends a valid Response containing   Response Status Code set 2000 (OK)   Content containing     aggregatedResponse message containing     Response for MEMBER_RESOURCE_ADDRESS1/myCon/ latest and     Response for MEMBER_RESOURCE_ADDRESS2/myCon/ latest } </pre>	IUT → AE

9. CE/GMG/00003/00002

Create sub group resource in case multiple members belong to same member CSE

10.CE/GMG/00003/00003

Create <subscription> resource via group without aggregating notifications

11.CE/GMG/00003/00004

Create <subscription> resource via group and aggregate notifications

12.CE/GMG/00003/00005

Support the membersAccessControlPolicyIDs attribute of <group> resource

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/020	
<b>Test objective</b>	Check that the IUT allows a <group>/fanoutPoint OPERATION when the Originator has OPERATION_PERMISSION specified in membersAccessControlPolicyIDs attribute in the group resource.	
<b>Reference</b>	TS-0001 10.2.7.7	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a group resource at TARGET_RESOURCE_ADDRESS <b>containing</b> membersAccessControlPolicyIDs attribute <b>set to</b> allow the AE to perform OPERATION <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS1 <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS2 <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid OPERATION Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS/fopt <b>and</b> From <b>set to</b> AE-ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set</b> RESPONSE_STATUS_CODE Content <b>containing</b> aggregatedResponse <b>containing</b> Response for MEMBER_RESOURCE_ADDRESS1 <b>and</b> Response for MEMBER_RESOURCE_ADDRESS2 <b>}</b>	IUT → AE

TP Id	OPERATION	RESPONSE_STATUS_CODE
TP/oneM2M/CSE/GMG/BV/020_1	CREATE	2001 (CREATED)
TP/oneM2M/CSE/GMG/BV/020_2	RETRIEVE	2000 (OK)
TP/oneM2M/CSE/GMG/BV/020_3	UPDATE	2004 (UPDATED)
TP/oneM2M/CSE/GMG/BV/020_4	DELETE	2002 (DELETED)

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BV/022	
<b>Test objective</b>	Check that the IUT allows a <group>/fanoutPoint OPERATION when the Originator has OPERATION_PERMISSION specified in <i>accessControlPolicyIDs</i> and the <i>membersAccessControlPolicyIDs</i> is empty in the <group> resource.	
<b>Reference</b>	TS-0001 10.2.7.7	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a group resource at TARGET_RESOURCE_ADDRESS <b>containing</b> <i>membersAccessControlPolicyIDs</i> attribute <b>set to</b> empty <b>containing</b> <i>accessControlPolicyIDs</i> attribute <b>set to</b> ACP_RESOURCE_ID <b>indicating</b> <b>to allow</b> the AE privileges to perform OPERATION <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS1 <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS2 <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid OPERATION Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS/fopt <b>and</b> From <b>set to</b> AE-ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set</b> RESPONSE_STATUS_CODE Content <b>containing</b> aggregatedResponse message <b>containing</b> Response for MEMBER_RESOURCE_ADDRESS1 <b>and</b> Response for MEMBER_RESOURCE_ADDRESS2 <b>}</b>	IUT → AE

TP Id	OPERATION	RESPONSE_STATUS_CODE
TP/oneM2M/CSE/GMG/BV/022_1	CREATE	2001 (CREATED)
TP/oneM2M/CSE/GMG/BV/022_2	RETRIEVE	2000 (OK)
TP/oneM2M/CSE/GMG/BV/022_3	UPDATE	2004 (UPDATED)
TP/oneM2M/CSE/GMG/BV/022_4	DELETE	2002 (DELETED)



<b>TP Id</b>	TP/oneM2M/CSE/GMG/BO/023	
<b>Test objective</b>	Check that IUT rejects a <group>/fanOutPoint OPERATION when the Originator does not have OPERATION_PERMISSION specified in <i>accessControlPolicyIDs</i> and the <i>membersAccessControlPolicyIDs</i> is empty in the group resource.	
<b>Reference</b>	TS-0001 10.2.7.7	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a group resource at TARGET_RESOURCE_ADDRESS <b>containing</b> <i>membersAccessControlPolicyIDs</i> attribute <b>set to</b> empty <b>containing</b> <i>accessControlPolicyIDs</i> attribute <b>set to</b> ACP_RESOURCE_ID <b>indicating to</b> allow the AE privileges to perform all operations except OPERATION <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS1 <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS2 <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid OPERATION Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS/fopt <b>and</b> From <b>set to</b> AE-ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> ORIGINATOR_HAS_NO_PRIVILEGE <b>}</b>	IUT → AE

TP Id	OPERATION
TP/oneM2M/CSE/GMG/BO/023_1	CREATE
TP/oneM2M/CSE/GMG/BO/023_2	RETRIEVE
TP/oneM2M/CSE/GMG/BO/023_3	UPDATE
TP/oneM2M/CSE/GMG/BO/023_4	DELETE

<b>TP Id</b>	TP/oneM2M/CSE/GMG/BO/021
<b>Test objective</b>	Check that IUT denies a <group>/fanOutPoint OPERATION when the Originator does not have OPERATION_PERMISSION specified in <i>membersAccessControlPolicyIDs</i> in the group resource.
<b>Reference</b>	TS-0001 10.2.7.7
<b>Config Id</b>	CF01
<b>PICS Selection</b>	PICS_CSE

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a group resource at TARGET_RESOURCE_ADDRESS <b>containing</b> membersAccessControlPolicyIDs attribute <b>set to</b> ACP_RESOURCE_ID <b>indicating to</b> allow the AE to perform all operations except OPERATION <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS1 <b>and</b> the IUT <b>having</b> a resource at MEMBER_RESOURCE_ADDRESS2 <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid OPERATION Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS/fopt <b>and</b> From <b>set to</b> AE-ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> ORIGINATOR_HAS_NO_PRIVILEGE <b>}</b>	IUT → AE

TP Id	OPERATION
TP/oneM2M/CSE/GMG/BO/021_1	CREATE
TP/oneM2M/CSE/GMG/BO/021_2	RETRIEVE
TP/oneM2M/CSE/GMG/BO/021_3	UPDATE
TP/oneM2M/CSE/GMG/BO/021_4	DELETE



## 6. Discovery (DIS)

### 1. CE/DIS/00001/00001

Support the Discovery request with filterUsage equals to “Discovery”

Editor Note: all the uppercased italic strings denotes type of primitives defined in the oneM2M specification, for example, *FILTER\_CRITERIA\_TYPE* denotes the category of filter criteria, while the uppercased normal strings, e.g. *ATTRIBUTE\_VALUE* denotes the user-input value.

<b>TP Id</b>	TP/oneM2M/CSE/DIS/BV/001	
<b>Test objective</b>	Check that the IUT returns successfully a list all discovered resource addresses	
<b>Reference</b>	TS-0001 10.2.6 & TS-0004 7.2.3.13	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a resource TARGET_RESOURCE_ADDRESS <b>allowing</b> the AE to perform RETRIEVE operation <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Filter Criteria <b>containing</b> filterUsage <b>set to</b> 1 (Discovery Criteria) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> URIList representation <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/DIS/BV/003	
<b>Test objective</b>	Check that the IUT returns the empty address list when no result matching with filter criteria is discovered	
<b>Reference</b>	TS-0001 8.1.3 & 10.2.6 & TS-0004 7.2.3.13	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a resource TARGET_RESOURCE_ADDRESS <b>allowing</b> the AE to perform RETRIEVE operation <b>and</b> FILTER_CRITERIA_CONDITIONS <b>not being</b> applicable to the IUT <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Filter Criteria <b>set to</b> FILTER_CRITERIA_CONDITIONS <b>containing</b> filterUsage <b>set to</b> 1 (Discovery Criteria) <b>}</b>	IUT ← AE

	<pre>then {   the IUT <b>sends</b> a valid Response <b>containing</b>   Response Status Code <b>set to</b> 2000 (OK) <b>and</b>   <b>no</b> Content }</pre>	IUT → AE
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<b>TP Id</b>	TP/oneM2M/CSE/DIS/BV/004	
<b>Test objective</b>	Check that the IUT returns successfully a list of discovered resource addresses with Non-hierarchical addressing form when the Discovery Result Type is provided in the request	
<b>Reference</b>	TS-0001 8.1.3 & 10.2.6 & TS-0004 7.2.3.13	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a resource <i>TARGET_RESOURCE_ADDRESS</i> <b>allowing</b> the AE to perform RETRIEVE operation <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> <i>TARGET_RESOURCE_ADDRESS</i> <b>and</b> From <b>set to</b> AE-ID <b>and</b> Discovery Result Type <b>set to</b> 2 (unstructured) <b>and</b> Filter Criteria <b>containing</b> filterUsage <b>set to</b> 1 (Discovery Criteria) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> URList representation <b>containing</b> unstructured addresses of discovered resources <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/DIS/BO/006	
<b>Test objective</b>	Check that the IUT responds with an error when the AE sends requests to discover the resource TARGET_RESOURCE_ADDRESS which does not exist in the Hosting CSE	
<b>Reference</b>	TS-0001 10.2.6.2, TS-0004 7.3.3.14	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having not yet created</b> a resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Filter Criteria <b>containing</b> filterUsage <b>set to</b> 1 (Discovery Criteria) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4004 (NOT_FOUND) <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/DIS/BI/007	
<b>Test objective</b>	Check that the IUT responds the originator with an error when the originator sends a request including an invalid format of filter criteria to discover the resource TARGET_RESOURCE_ADDRESS	
<b>Reference</b>	TS-0001 10.2.6, TS-0004 7.3.3.6	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the originator AE <b>and</b> the IUT <b>having</b> a resource TARGET_RESOURCE_ADDRESS <b>allowing</b> the AE to perform RETRIEVE operation <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Filter Criteria <b>set to</b> FILTER_CRITERIA_CONDITIONS <b>not being</b> valid format <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4102 (CONTENTS_UNACCEPTABLE) <b>}</b>	IUT → AE



## 2. CE/DIS/00001/00002

Support discovery with filterCriteria (*createdBefore, createdAfter, modifiedSince, unmodifiedSince, stateTagSmaller, stateTagBigger, expireBefore, expireAfter, labels, resourceType, sizeAbove, sizeBelow, contentType, limit, attribute*)

<b>TP Id</b>	TP/oneM2M/CSE/DIS/BV/002	
<b>Test objective</b>	Check that the IUT returns successfully appropriate list of discovered resource when the filter criteria is provided in the request	
<b>Reference</b>	TS-0001 8.1.3 & 10.2.6 & TS-0004 7.2.3.13	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a resource <i>TARGET_RESOURCE_ADDRESS</i> <b>allowing</b> the AE to perform RETRIEVE operation <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request from AE <b>containing</b> To <b>set to</b> <i>TARGET_RESOURCE_ADDRESS</i> <b>and</b> From <b>set to</b> AE-ID <b>and</b> Filter Criteria <b>set to</b> <i>FILTER_CRITERIA_CONDITIONS</i> <b>containing</b> filterUsage <b>set to</b> 1 (Discovery Criteria) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> URList representation <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/DIS/BI/008	
<b>Test objective</b>	Check that the IUT responds the originator with an error when the originator sends a request to discover the resource <i>TARGET_RESOURCE_ADDRESS</i> including two conflicted filter criteria of different type <i>FILTER_CRITERIA_CONDITION_1</i> and <i>FILTER_CRITERIA_CONDITION_2</i> (E.G. <i>createBefore</i> < <i>createdAfter</i> )	
<b>Reference</b>	TS-0001 6.2.5, TS-0004 7.3.3.17	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the originator AE <b>and</b> the IUT <b>having</b> a resource <i>TARGET_RESOURCE_ADDRESS</i> <b>allowing</b> the AE to perform RETRIEVE operation <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request from AE <b>containing</b> To <b>set to</b> <i>TARGET_RESOURCE_ADDRESS</i> <b>and</b> From <b>set to</b> AE_ID <b>and</b> Filter Criteria <b>containing</b> filterUsage <b>set to</b> 1 (Discovery Criteria) <b>and</b> <b>having</b> conflict conditions <b>}</b>	IUT ← AE

<pre> then {   the IUT <b>sends</b> a valid Response <b>containing</b>   Response Status Code <b>set to</b> 4102 (CONTENTS_UNACCEPTABLE) } </pre>	IUT → AE
---	----------

TP ID	REQ Reference	FILTER_CRITERIA_CONDITION_1	FILTER_CRITERIA_CONDITION_2
TP/oneM2M/CSE/DIS/BI/008 -1	REQ-0004-07241	createdBefore	createdAfter
TP/oneM2M/CSE/DIS/BI/008 -2	REQ-0004-07242	lastModifiedBefore	lastModifiedAfter
TP/oneM2M/CSE/DIS/BI/008-3	REQ-0004-07243	stateTagSmaller	stateTagBigger
TP/oneM2M/CSE/DIS/BI/008 -4	REQ-0004-07244	expireBefore	expireAfter

### 3. CE/DIS/00001/00003

Support discovery with filterCriteria (*level, offset*)

### 4. CE/DIS/00001/00004

Support discovery with content filter (*contentFilterSyntax, contentFilterQuery* of *filterCriteria*)

### 5. CE/DIS/00001/00005

Support discovery with filterCriteria (*filterOperation*)

## 7. Location (LOC)

**Editor's Note:** All test purposes belongs to current function group are supposed to be reclarified according to features. But the features for Location (LOC) function group are not available yet. Therefore, we will keep test purposes in current section (7.2.3.7) as it is until new features for LOC are available in TS-0031 [5].

TP/oneM2M/CSE/LOC/BV/001

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BV/001	
<b>Test objective</b>	Check that the IUT rejects the creation of the locationPolicy resource when <i>locationSource</i> attribute is set by Network Based and Location Server is not reachable.	
<b>Reference</b>	TS-0001 8.5. & 10.2.10 & TS-0004 7.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre> with {   the IUT <b>being</b> in the "initial state"   <b>and</b> the IUT <b>having registered</b> the AE   <b>and</b> the IUT <b>having no</b> connection to Location Server   <b>and</b> the IUT <b>having a</b> CSEBase resource <b>allowing</b>   the AE to perform CREATE operation <b>and</b> } </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when {   the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b>   To <b>set to</b> CSEBASE_RESOURCE_ADDRESS <b>and</b>   From <b>set to</b> AE-ID <b>and</b>   Content <b>containing</b>   locationPolicy resource representation } </pre>	IUT ← AE

```
then {  
  the IUT does not create the locationPolicy resource  
  and the IUT sends a valid Response containing  
    Response Status Code set to 4000 (BAD_REQUEST)  
}
```

IUT → AE

TP/oneM2M/CSE/LOC/BV/002

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BV/002	
<b>Test objective</b>	Check that the IUT accepts the creation of locationPolicy resource with <i>locationSource</i> attribute and <i>locationUpdatePeriod</i> attribute provided.	
<b>Reference</b>	TS-0001 10.2.10.1, TS-0004 7.4.11.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE having privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 10 (locationPolicy) <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> <i>locationSource</i> attribute <b>set to</b> 1 (Network_based) <b>and</b> valid <i>locationUpdatePeriod</i> attribute <b>and</b> valid <i>locationTargetID</i> attribute <b>and</b> valid <i>locationServer</i> attribute <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>creates</b> the locationPolicy resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>}</b>	IUT → AE

TP/oneM2M/CSE/LOC/BO/003

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BO/003	
<b>Test objective</b>	Check that the IUT rejects the creation of locationPolicy resource when AE has no privilege to perform the creation request for the locationPolicy resource	
<b>Reference</b>	TS-0001 10.2.10.1, TS-0004 7.4.11.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the originator AE <b>and</b> the AE <b>having no</b> privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 10 (locationPolicy) <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> locationSource attribute <b>set to</b> 1 (Network_based) <b>and</b> valid locationUpdatePeriod attribute <b>and</b> valid locationTargetID attribute <b>and</b> valid locationServer attribute <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the locationPolicy resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4103 (ACCESS_DENIED) <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BO/004	
<b>Test objective</b>	Check that the IUT responds with an error when receiving a creation request of locationPolicy resource target to the TARGET_RESOURCE_ADDRESS which does not exist in the Hosting CSE	
<b>Reference</b>	TS-0001 10.2.10.1, TS-0004 7.4.11.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the originator AE <b>and</b> the IUT <b>having not yet created</b> a resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 10 (locationPolicy) <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> locationSource attribute <b>set to</b> 1 (Network_based) <b>and</b> valid locationUpdatePeriod attribute <b>and</b> valid locationTargetID attribute <b>and</b> valid locationServer attribute <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the locationPolicy resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4004 (NOT_FOUND) <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BI/005	
<b>Test objective</b>	Check that the IUT rejects AE to update the locationPolicy resource identified with LOCATION_ID when receiving an update request containing an invalid attribute	
<b>Reference</b>	TS-0001 10.2.10.1.3, TS-0004 7.3.3.4 & 7.4.11.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type locationPolicy <b>containing</b> an optional RW attribute locationUpdatePeriod <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a UPDATE Request from AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> locationUpdatePeriod attribute <b>set to</b> INVALID_LOCATION_UPDATE_PERIOD <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not update</b> the locationPolicy resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4000 (BAD_REQUEST) <b>}</b>	IUT → AE



<b>TP Id</b>	TP/oneM2M/CSE/LOC/BV/006	
<b>Test objective</b>	Check that the IUT responds with a container resource containing attribute <i>locationID</i> set to resourceID of the associated locationPolicy resource	
<b>Reference</b>	TS-0001 10.2.10.1.1, TS-0004 7.4.11.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a resource LOCATIONPOLICY_ADDRESS of type locationPolicy <b>containing</b>  locationContainerID attribute <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  locationSource attribute <b>set to</b> 1 (Network_based) <b>and</b>  locationTargetID attribute <b>set to</b> LOCATION_TARGET_ID <b>and</b>  locationServer attribute <b>set to</b> LOCATION_SERVER_ADDRESS  <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type container <b>containing</b>  locationID attribute <b>set to</b> LOCATIONPOLICY_ADDRESS  <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a RETRIEVE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  From <b>set to</b> AE_ID  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> 2000 (OK) <b>and</b>  Content <b>containing</b>  container resource <b>containing</b>  locationID attribute <b>set to</b>  LOCATIONPOLICY_ADDRESS  <b>}</b></p>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BV/007	
<b>Test objective</b>	Check that IUT accepts the creation of a locationPolicy resource with attribute locationSource set to Device-based and locationUpdatePeriod set to POSITIVE_UPDATE_PERIOD	
<b>Reference</b>	TS-0001 8.5.2 & 10.2.10.1.1, TS-0004 7.3.3.3 & 7.4.11.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> location positioning modules <b>and</b> the originator <b>being</b> a PX_ASN_AE <b>and</b> the IUT <b>being</b> a PX_ASN_CSE <b>and</b> the IUT <b>having registered</b> the PX_ASN_AE <b>and</b> the ASN-AE having privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 10 (locationPolicy) <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> locationSource attribute <b>set to</b> 2 (Device_based) <b>and</b> locationUpdatePeriod attribute <b>set to</b> POSITIVE_UPDATE_PERIOD <b>}</b>	IUT ← ASN-AE
	<b>then {</b> the IUT <b>creates</b> the locationPolicy resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> locationPolicy resource representation <b>}</b>	IUT → ASN-AE

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BV/008	
<b>Test objective</b>	Check that the IUT accepts the creation of a locationPolicy resource with attribute locationSource set to Sharing-based	
<b>Reference</b>	TS-0001 8.5.2 & 10.2.10.1.1, TS-0004 7.3.3.3 & 7.4.11.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the originator <b>being</b> a PX_ADN_AE <b>and</b> the IUT <b>being</b> a PX_MN_CSE <b>and</b> the ADN-AE <b>being no</b> location positioning modules deployed <b>and</b> the ADN-AE <b>being no</b> Network-based positioning capabilities <b>and</b> the IUT <b>having registered</b> the PX_ADN_AE <b>and</b> the ADN-AE having privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 10 (locationPolicy) <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> locationSource attribute <b>set to</b> 3 (Sharing_based) <b>}</b>	IUT ← ADN-AE
	<b>then {</b> the IUT <b>creates</b> the locationPolicy resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> locationPolicy resource representation <b>}</b>	IUT → ADN-AE

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BV/009	
<b>Test objective</b>	Check that the IUT sends a notification message including the location Information to the originator when the originator sends a retrieve request target to the <latest> resource of CONTAINER_ADDRESS container associated with a <locationPolicy> resource	
<b>Reference</b>	TS-0001 8.5.2 & 10.2.10.1.1 & 10.2.10.2.2, TS-0004 7.4.11.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a resource LOCATIONPOLICY_ADDRESS of type locationPolicy <b>containing</b>  locationContainerID attribute <b>set to</b> CONTAINER_ADDRESS <b>and</b>  locationUpdatePeriod attribute <b>set to</b> ZERO (or NULL) <b>and</b>  locationSource attribute <b>set to</b> LOCATION_SOURCE</p> <p><b>and</b> the IUT <b>having created</b> a resource CONTAINER_ADDRESS of type &lt;container&gt; <b>containing</b>  locationID attribute <b>set to</b> LOCATIONPOLICY_ADDRESS  <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource CONTAINER_ADDRESS  <b>and</b> the AE <b>having created</b> a resource of type subscription as a child of the resource CONTAINER_ADDRESS of type container  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a RETRIEVE Request from AE <b>containing</b>  To <b>set to</b> CONTAINER_ADDRESS <b>and</b>  From <b>set to</b> AE_ID  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> 2000 (OK) <b>and</b>  Content <b>containing</b>  notification attribute <b>containing</b>  notificationEvent attribute <b>containing</b>  representation attribute <b>containing</b>  contentInstance resource <b>containing</b>  location information  <b>}</b></p>	IUT → AE

TP ID	Reference	LOCATION_SOURCE
TP/oneM2M/CSE/LOC/BV/009_01	TS-0001 9.6.10 & 10.2.10	1 (Network_based)
TP/oneM2M/CSE/LOC/BV/009_02	TS-0004 7.4.11 & 6.3.4.2.3	2 (Device_based)
TP/oneM2M/CSE/LOC/BV/009_03		3 (Sharing_based)

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BV/010	
<b>Test objective</b>	Check that the IUT sends a notification message including the location Information to the originator with frequency of POSITIVE_UPDATE_PERIOD set in field of locationUpdatePeriod	
<b>Reference</b>	TS-0001 8.5.2 & 10.2.10.1.1 & 10.2.10.2.2, TS-0004 7.4.11.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a resource LOCATIONPOLICY_ADDRESS of type locationPolicy <b>containing</b>  locationContainerID attribute <b>set to</b> CONTAINER_ADDRESS <b>and</b>  locationUpdatePeriod attribute <b>set to</b> POSITIVE_UPDATE_PERIOD <b>and</b>  locationSource attribute <b>set to</b> LOCATION_SOURCE  <b>and</b> the IUT <b>having created</b> a resource CONTAINER_ADDRESS of type container <b>containing</b>  locationID attribute <b>set to</b> LOCATIONPOLICY_ADDRESS  <b>and</b> the AE <b>having created</b> a resource of type subscription as a child of the resource CONTAINER_ADDRESS of type container  <b>and</b> the IUT <b>having</b> privileges to retrieve the location information from the NSE  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid Response from NSE <b>containing</b>  location-protocol-specific-result-code of positioning procedure execution <b>and</b>  location-response <b>containing</b>  location information  <b>}</b></p>	IUT ← NSE
	<p><b>then {</b>  the IUT <b>transforms</b> the location-response into a oneM2M Response primitive and <b>sends</b> the Response primitive <b>containing</b>  Response Status Code <b>set to</b> 2000 (OK) <b>and</b>  Content <b>containing</b>  notification representation <b>containing</b>  notificationEvent attribute <b>containing</b>  representation attribute <b>containing</b>  contentInstance representation  <b>}</b></p>	IUT → AE
<p>Note that: the attribute location-protocol-specific-result-code and location-response are location acquisition protocol specific and the exact name of these two attributes have to follow the specification of corresponding location protocol e.g. OMA Mobile Location Protocol.</p>		

**Table** Referenced values for parameter LOCATION\_SOURCE

TP ID	Reference	LOCATION_SOURCE
TP/oneM2M/CSE/LOC/BV/010_01	TS-0001 9.6.10 & 10.2.10	1 (Network_based)
TP/oneM2M/CSE/LOC/BV/010_02	TS-0004 7.4.11 & 6.3.4.2.3	2 (Device_based)
TP/oneM2M/CSE/LOC/BV/010_03		3 (Sharing_based)

**Table** Referenced values for parameter location-protocol-specific-result-code and location-response

location-protocol-specific-result-code	location-response	Location protocol	Reference
[Result code]	[Content]	OMA Mobile Location Protocol	Not Present
[HTTP Response code]	<TerminalLocation> representation containing attributes <i>address</i> indicating the address of targeted node where location information is retrieved, <i>locationRetrievalStatus</i> indicating the status of retrieval of the location information for the target node , and <i>currentLocation</i> containing the actual location data of the target node	OMA RESTful NetAPI	TS-0004 Annex G
[HTTP Response code]	<SubscriptionNotification> representation	OMA RESTful NetAPI	Location Server Open RESTful API Specification

TP/oneM2M/CSE/LOC/BV/011

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BV/011	
<b>Test objective</b>	Check that the IUT creates a container resource with CONTAINER_NAME included in the associated locationPolicy resource that has been created resulted in a valid locationPolicy create request.	
<b>Reference</b>	TS-0001 8.5.2 & 10.2.10.2.1, TS-0004 7.3.3.3 & 7.4.11.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>                      the IUT <b>being</b> in the "initial state"                      and the IUT <b>having registered</b> the AE                      and the IUT <b>having no</b> created container <b>having</b> resourceName <b>set to</b> CONTAINER_NAME                      and the IUT <b>having created</b> a resource LOCATIONPOLICY_ADDRESS of type locationPolicy <b>containing</b>                      locationContainerName attribute <b>set to</b> CONTAINER_NAME <b>and</b>                      locationUpdatePeriod attribute <b>set to</b> POSITIVE_UPDATE_PERIOD <b>and</b>                      locationSource attribute <b>set to</b> 1 (Network_based) <b>and</b>                      locationTargetID attribute <b>set to</b> LOCATION_TARGET_ID <b>and</b>                      locationServer attribute <b>set to</b> LOCATION_SERVER_ADDRESS                      and the AE <b>having</b> privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> ResourceType <b>set to</b> 3 (container) <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> resourceName attribute <b>set to</b> CONTAINER_NAME locationID attribute <b>set to</b> LOCATIONPOLICY_ADDRESS <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>creates</b> the container resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> container resource representation <b>containing</b> resourceName attribute <b>set to</b> CONTAINER_NAME locationID attribute <b>set to</b> resourceID of the associated locationPolicy resource <b>}</b>	IUT → AE
Note that the IUT sets the <i>locationContainerID</i> attribute in locationPolicy resource to the resourceID of the created <container> resource		

TP/oneM2M/CSE/LOC/BV/012

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BV/012	
<b>Test objective</b>	Check that the IUT creates a subscription resource with SUBSCRIPTION_NAME provided by the originator as a child resource of the container linked with a locationPolicy resource.	
<b>Reference</b>	TS-0001 8.5.2 & 10.2.10.2.1, TS-0004 7.3.3.3 & 7.4.11.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> resourceID <b>set to</b> NOTI_URI_ADDRESS <b>and</b> the IUT <b>having created</b> a resource LOCATIONPOLICY_ADDRESS of type <locationPolicy> <b>containing</b> locationUpdatePeriod <b>set to</b> POSITIVE_UPDATE_PERIOD <b>and</b> locationSource <b>set to</b> 1 (Network_based) <b>and</b> locationTargetID <b>set to</b> LOCATION_TARGET_ID <b>and</b> locationServer <b>set to</b> LOCATION_SERVER_ADDRESS <b>and</b> locationContainerID <b>set to</b> CONTAINER_ADDRESS <b>and</b> <b>and</b> the IUT <b>having created</b> a resource CONTAINER_ADDRESS of type <container> <b>containing</b> locationID <b>set to</b> LOCATIONPOLICY_ADDRESS <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> ResourceType <b>set to</b> 23 (subscription0 <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> notificationURI attribute <b>set to</b> NOTI_URI_ADDRESS <b>and</b> eventNotificationCriteria attribute <b>containing</b> notificationEventType attribute <b>set to</b> 3 (Create_of_Direct_Child_Resource) <b>and</b> notificationContentType attribute <b>set to</b> 1 (All Attributes) <b>}</b>	IUT ← AE

<pre> then { the IUT <b>creates</b> the subscription resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> subscription resource representation } </pre>	IUT → AE
Note that the IUT sets the <i>locationContainerID</i> attribute in <locationPolicy> resource to the resourceID of the created <container> resource	

TP/oneM2M/CSE/LOC/BV/013

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BV/013	
<b>Test objective</b>	Check that the IUT responds with a <locationPolicy> resource containing attribute <i>locationContainerID</i> set to resourceID of the associated <container> resource	
<b>Reference</b>	TS-0001 10.2.10.1.1, TS-0004 7.4.11.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre> with { the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type locationPolicy <b>containing</b> locationContainerID attribute <b>set to</b> CONTAINER_ADDRESS <b>and</b> locationSource attribute <b>set to</b> 1 (Network_based) <b>and</b> locationTargetID attribute <b>set to</b> LOCATION_TARGET_ID <b>and</b> locationServer attribute <b>set to</b> LOCATION_SERVER_ADDRESS <b>and</b> the IUT <b>having created</b> a resource CONTAINER_ADDRESS of type container <b>containing</b> locationID attribute <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS } </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when { the IUT <b>receives</b> a RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID } </pre>	IUT ← AE
	<pre> then { the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> locationPolicy representation <b>containing</b> locationContainerID attribute <b>set to</b> CONTAINER_ADDRESS } </pre>	IUT → AE

TP/oneM2M/CSE/LOC/BV/014

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BV/014	
<b>Test objective</b>	Check that the IUT sets the <i>locationStatus</i> attribute with the error status code in the locationPolicy resource when the location information of the requested node is failed to be retrieved due to NSE.	
<b>Reference</b>	TS-0001 8.5.2 & 10.2.10.1.1, TS-0004 7.4.11.2.1	
<b>Config Id</b>	CF01	



<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type locationPolicy <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> locationPolicy representation <b>containing</b> locationStatus attribute <b>set to</b> LOCATION_PROTOCOL_SPECIFIC_RESULT_CODE <b>}</b>	IUT → AE
Note: the error status code LOCATION_PROTOCOL_SPECIFIC_RESULT_CODE is location protocol specific, e.g. in OMA Mobile Location Protocol the reslt code is set to 6 indicating POSITION METHOD FAILURE. Note that the failure is caused by the NSE such as location server.		

TP/oneM2M/CSE/LOC/BV/015

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BV/015
<b>Test objective</b>	Check that the IUT sends a notification message including the location Information to the originator with frequency of POSITIVE_UPDATE_PERIOD set in field of <i>locationUpdatePeriod</i>
<b>Reference</b>	TS-0001 8.5.2 & 10.2.10.1.1, TS-0004 7.3.3.3 & 7.4.11.2
<b>Config Id</b>	CF01
<b>PICS Selection</b>	PICS_CSE

<p><b>Initial conditions</b></p>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the originator <b>being</b> a ADN-AE  <b>and</b> the IUT <b>being</b> a MN-CSE  <b>and</b> the ADN-AE <b>being no</b> location positioning modules deployed  <b>and</b> the ADN-AE <b>being no</b> Network-based positioning capabilities</p> <p><b>and</b> the IUT <b>having registered</b> the ADN-AE  <b>and</b> the IUT <b>having created</b> under the ADN-AE a child resource  ORIGINATOR_LOCATIONPOLICY_ADDRESS of type locationPolicy <b>containing</b>  locationContainerID attribute <b>set to</b>  ORIGINATOR_CONTAINER_ADDRESS <b>and</b>  locationUpdatePeriod attribute <b>set to</b> POSITIVE_UPDATE_PERIOD <b>and</b>  locationSource attribute <b>set to</b> 3 (Sharing-based)  <b>and</b> the IUT <b>having created</b> under the ADN-AE a child resource  ORIGINATOR_CONTAINER_ADDRESS of type container <b>containing</b>  locationID attribute <b>set to</b>  ORIGINATOR_LOCATIONPOLICY_ADDRESS  <b>and</b> the IUT <b>having created</b> a resource of type subscription as a child resource of  ORIGINATOR_CONTAINER_ADDRESS of type container  <b>and</b> the IUT <b>having registered</b> a Node  <b>being</b> a minimum hop with the originator compared to other nodes registered with the  hosting CSE  <b>and</b> the IUT <b>having created</b> under the Node a child resource  CLOSEST_NODE_CONTAINER_ADDRESS of type &lt;container&gt; <b>containing</b>  a latest contentInstance resource <b>containing</b>  the latest location information  <b>and</b> the IUT <b>having</b> privileges to perform RETRIEVE operation on the resource  CLOSEST_NODE_CONTAINER_ADDRESS of type of container</p> <p><b>}</b></p>	
<p><b>Expected behaviour</b></p>	<p style="text-align: center;"><b>Test events</b></p> <p><b>when {</b>  the IUT <b>receives</b> a latest resource of container <b>from</b> the  CLOSEST_NODE_CONTAINER_ADDRESS <b>containing</b>  latest location information  <b>and</b> the IUT <b>creates</b> a contentInstance as a child resource of  ORIGINATOR_CONTAINER_ADDRESS of type &lt;container&gt; <b>containing</b>  the location information that retrieved</p> <p><b>}</b></p> <p><b>then {</b>  the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> 2000 (OK) <b>and</b>  Content <b>containing</b>  notification representation <b>containing</b>  notificationEvent attribute <b>containing</b>  representation attribute <b>containing</b>  contentInstance resource <b>containing</b>  location information</p> <p><b>}</b></p>	<p style="text-align: center;"><b>Direction</b></p> <p style="text-align: center;">IUT ← AE</p> <p style="text-align: center;">IUT → ADN-AE</p>

TP/oneM2M/CSE/LOC/BI/016

<p><b>TP Id</b></p>	<p>TP/oneM2M/CSE/LOC/BI/016</p>
<p><b>Test objective</b></p>	<p>Check that the IUT rejects the creation of the locationPolicy resource when <i>locationSource</i> attribute is set to Network-Based and neither locationTargetID nor locationServer is provided.</p>
<p><b>Reference</b></p>	<p>TS-0001 8.5.2 &amp; 10.2.10.1.1, TS-0004 7.3.3.3 &amp; 7.4.11.2.1</p>
<p><b>Config Id</b></p>	<p>CF01</p>
<p><b>PICS Selection</b></p>	<p>PICS_CSE</p>

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 10 (locationPolicy) <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> locationSource attribute <b>set to</b> 1 (Network_based) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the locationPolicy resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4000 (BAD_REQUEST) <b>}</b>	IUT → AE

TP/oneM2M/CSE/LOC/BO/017

<b>TP Id</b>	TP/oneM2M/CSE/LOC/BO/017	
<b>Test objective</b>	Check that the IUT responds with an error message "NOT_FOUND" when receiving a retrieve request target to an non-existing locationPolicy resource	
<b>Reference</b>	TS-0001 8.5.2 & 10.2.10.1.2, TS-0004 7.3.3.2 & 7.4.11.2.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having not created</b> LOCATIONPOLICY_ADDRESS of type locationPolicy under the AE a resource <b>and</b> the IUT <b>having</b> privileges to perform RETRIEVE operation on locationPolicy resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a RETRIEVE Request <b>from</b> AE <b>containing</b> To <b>set to</b> LOCATIONPOLICY_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4004 (NOT_FOUND) <b>}</b>	IUT → AE

## 8. Device Management (DMG)

### 1. CE/DMG/00001/00001

Support <node> resource with attributes multiplicity equals 1[1]

TP/oneM2M/CSE/DMR/RET/BV/013\_08

TP/oneM2M/CSE/DMR/UPD/BV/018\_03

TP/oneM2M/CSE/DMR/UPD/BV/018\_04

2. CE/DMG/00001/00002

Support the *labels* attribute of <node> resource

TP/oneM2M/CSE/DMR/UPD/BV/017\_04

3. CE/DMG/00001/00003

Support the *hostedCSELink* attribute of <node> resource

TP/oneM2M/CSE/DMR/UPD/BV/017\_06

4. CE/DMG/00002/00001

Support <mgmtObj> resource with attributes multiplicity equals 1[1]

5. CE/DMG/00002/00002

Support the *labels* attribute of <mgmtObj> resource

6. CE/DMG/00002/00003

Support the *description* attribute of <mgmtObj> resource

7. CE/DMG/00002/00004

Support the *mgmtLink* attribute of <mgmtObj> resource

8. CE/DMG/00003/00001

Support the [software] specialization attributes multiplicity equals 1[1]

9. CE/DMG/00003/00002

Support the *activate* attribute of [software] resource

10. CE/DMG/00003/00003

Support the *deactivate* attribute of [software] resource

11. CE/DMG/00003/00004

Support the *activeStatus* attribute of [software] resource

12. CE/DMG/00004/00001

Support the [firmware] specialization attributes multiplicity equals 1[1]

13. CE/DMG/00005/00001

Support the [deviceInfo] specialization attributes multiplicity equals 1[1]

14. CE/DMG/00006/00001

Support [deviceCapability] specialization attributes multiplicity equals 1[1]

15. CE/DMG/00006/00002

Support the *enable* attribute of [deviceCapability] resource

16. CE/DMG/00006/00003

Support the *disable* attribute of [deviceCapability] resource

17. CE/DMG/00007/00001

Support [reboot] specialization attributes multiplicity equals 1[1]

18.CE/DMG/00008/00001

Support [memory] specialization attributes multiplicity equals 1[1]

19.CE/DMG/00009/00001

Support the [battery] specialization attributes multiplicity equals 1[1]

20.CE/DMG/00010/00001

Support [eventLog] specialization attributes multiplicity equals 1[1]

21.CE/DMG/00011/00001

Support [areaNwkInfo] specialization attributes multiplicity equals 1[1]

22.CE/DMG/00012/00001

Support [areaNwkDeviceInfo] specialization attributes multiplicity equals 1[1]

23.CE/DMG/00012/00002

Support the *sleepInterval* attribute of [areaNwkDeviceInfo] resource

24.CE/DMG/00012/00003

Support the *sleepDuration* attribute of [areaNwkDeviceInfo] resource

25.CE/DMG/00012/00004

Support the *status* attribute of [areaNwkDeviceInfo] resource

26.CE/DMG/00013/00001

Support the *objectIDs* attribute of <mgmtObj> resource

27.CE/DMG/00013/00002

Support the *objectPaths* attribute of <mgmtObj> resource

28.CE/DMG/00013/00003

Support the *mgmtLink* attribute of <mgmtObj> resource

## 9. Communication Management and Delivery Handling(CMDH)

**Editor note:** No features for function group CMDH are available in TS-0031 [5] for the moment and features will be updated here when it is available.

## 10.Security(SEC)

1. CE/SEC/00001/00001

Support <accessControlPolicy> resource with attributes multiplicity equals 1[1]

TP/oneM2M/CSE/DMR/CRE/BV/001\_03

TP/oneM2M/CSE/DMR/RET/BV/013\_01

TP/oneM2M/CSE/DMR/RET/BV/001\_03

TP/oneM2M/CSE/DMR/DEL/BV/001\_03

TP/oneM2M/CSE/DMR/CRE/BV/015\_13

TP/oneM2M/CSE/DMR/CRE/BV/003\_03

TP/oneM2M/CSE/DMR/CRE/BV/002\_03

TP/oneM2M/CSE/DMR/UPD/BV/014\_08

TP/oneM2M/CSE/DMR/UPD/BV/014\_10

TP/oneM2M/CSE/DMR/UPD/BV/014\_11

TP/oneM2M/CSE/DMR/DEL/BV/004\_03

TP/oneM2M/CSE/DMR/UPD/BV/018\_08

TP/oneM2M/CSE/DMR/UPD/BV/018\_09

TP/oneM2M/CSE/DMR/UPD/BV/018\_10

TP/oneM2M/CSE/SEC/ACP/BV/001

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BV/001	
<b>Test objective</b>	Check that the IUT accepts the creation of a accessControlPolicy resource with privileges attribute having multiple access control rules	
<b>Reference</b>	TS-0001 9.6.2-2 & TS-0001 10.2.21	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> accessControlPolicy resource <b>containing</b> privileges attribute <b>containing</b> accessControlRule attribute <b>containing</b> ACCESS_CONTROL_RULE_1 <b>and</b> ACCESS_CONTROL_RULE_2 <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>creates</b> the accessControlPolicy resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>}</b>	IUT → AE

TP/oneM2M/CSE/SEC/ACP/BV/002

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BV/002	
<b>Test objective</b>	Check that the IUT accepts the creation of a accessControlPolicy resource with selfPrivileges attribute having multiple access control rules	
<b>Reference</b>	TS-0001 9.6.2-2 & TS-0001 10.2.21	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

behaviour	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Content <b>containing</b> accessControlPolicy resource <b>containing</b> selfPrivileges attribute <b>containing</b> accessControlRule attribute <b>containing</b> ACCESS_CONTROL_RULE_1 <b>and</b> ACCESS_CONTROL_RULE_2 <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>creates</b> the accessControlPolicy resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>}</b>	IUT → AE

TP/oneM2M/CSE/SEC/ACP/BV/003

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BV/003	
<b>Test objective</b>	Check that the IUT responds successfully when an allowed DOMAIN tries an <i>OPERATION</i> on a AE_RESOURCE_TYPE resource.	
<b>Reference</b>	TS-0001 9.6.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the DOMAIN <b>having</b> privileges to perform an <i>OPERATION</i> on the resource AE_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid <i>OPERATION</i> Request <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> DOMAIN <b>}</b>	IUT ← DOMAIN
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> <i>RESPONSE_STATUS_CODE</i> <b>}</b>	IUT → DOMAIN

TP Id	OPERATION	RESPONSE_STATUS_CODE
TP/oneM2M/CSE/SEC/ACP/BV/003_01	CREATE	2001 (CREATED)
TP/oneM2M/CSE/SEC/ACP/BV/003_02	RETRIEVE	2000 (OK)
TP/oneM2M/CSE/SEC/ACP/BV/003_03	UPDATE	2004 (UPDATED)
TP/oneM2M/CSE/SEC/ACP/BV/003_04	DELETE	2002 (DELETED)

TP/oneM2M/CSE/SEC/ACP/BV/004

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BV/004
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<b>Test objective</b>	Check that the IUT responds successfully when any ORIGINATOR tries an <i>OPERATION</i> on a AE_RESOURCE_TYPE resource for which all originators are allowed	
<b>Reference</b>	TS-0001 9.6.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> any originator (*) <b>having</b> privileges to perform an <i>OPERATION</i> on the resource AE_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid <i>OPERATION</i> Request <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> ORIGINATOR <b>}</b>	IUT ← ORIGINATOR
	<b>then {</b> the IUT <b>sends</b> a valid Response containing Response Status Code <b>set to</b> RESPONSE_STATUS_CODE <b>}</b>	IUT → ORIGINATOR

TP Id	OPERATION	RESPONSE_STATUS_CODE
TP/oneM2M/CSE/SEC/ACP/BV/004_01	CREATE	2001 (CREATED)
TP/oneM2M/CSE/SEC/ACP/BV/004_02	RETRIEVE	2000 (OK)
TP/oneM2M/CSE/SEC/ACP/BV/004_03	UPDATE	2004 (UPDATED)
TP/oneM2M/CSE/SEC/ACP/BV/004_04	DELETE	2002 (DELETED)

TP/oneM2M/CSE/SEC/ACP/BV/005

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BV/005	
<b>Test objective</b>	Check that the IUT responds successfully when the AE tries an <i>OPERATION</i> on a AE_RESOURCE_TYPE resource and that the request is within accessControlTimeWindow context.	
<b>Reference</b>	TS-0001 9.6.2.2-1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform <i>OPERATION</i> on the AE_RESOURCE_ADDRESS <b>within</b> TIME_WINDOW <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid <i>OPERATION</i> Request <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>within</b> TIME_WINDOW <b>}</b>	IUT ← AE

<pre> then {   the IUT <b>sends</b> a valid Response <b>containing</b>     Response Status Code <b>set to</b> RESPONSE_STATUS_CODE } </pre>	IUT → AE
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TP Id	OPERATION	RESPONSE_STATUS_CODE
TP/oneM2M/CSE/SEC/ACP/BV/005_01	CREATE	2001 (CREATED)
TP/oneM2M/CSE/SEC/ACP/BV/005_02	RETRIEVE	2000 (OK)
TP/oneM2M/CSE/SEC/ACP/BV/005_03	UPDATE	2004 (UPDATED)
TP/oneM2M/CSE/SEC/ACP/BV/005_04	DELETE	2002 (DELETED)

TP/oneM2M/CSE/SEC/ACP/BO/006

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BO/006	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries an <i>OPERATION</i> on a <i>AE_RESOURCE_TYPE</i> resource out of <i>accessControlTimeWindow</i> context.	
<b>Reference</b>	TS-0001 9.6.2.2-1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre> with {   the IUT <b>being</b> in the "initial state"   <b>and</b> the IUT <b>having registered</b> the AE   <b>and</b> the AE <b>having</b> privileges to perform <i>OPERATION</i> on the   <i>AE_RESOURCE_ADDRESS</i> <b>within</b> TIME_WINDOW } </pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre> when {   the IUT <b>receives</b> a valid <i>OPERATION</i> Request <b>containing</b>     To <b>set to</b> <i>AE_RESOURCE_ADDRESS</i> <b>and</b>     From <b>set to</b> <i>AE_ID</i>     <b>out of</b> TIME_WINDOW } </pre>	IUT ← AE
	<pre> then {   the IUT <b>sends</b> a valid Response <b>containing</b>     Response Status Code <b>set to</b> 4103 (<i>ACCESS_DENIED</i>) } </pre>	IUT → AE

TP Id	OPERATION
TP/oneM2M/CSE/SEC/ACP/BO/006_01	CREATE
TP/oneM2M/CSE/SEC/ACP/BO/006_02	RETRIEVE
TP/oneM2M/CSE/SEC/ACP/BO/006_03	UPDATE
TP/oneM2M/CSE/SEC/ACP/BO/006_04	DELETE

TP/oneM2M/CSE/SEC/ACP/BV/007

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BV/007
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<b>Test objective</b>	Check that the IUT responds successfully when the AE tries an <i>OPERATION</i> on a <i>AE_RESOURCE_TYPE</i> resource and that the request is within <i>accessControlLocationRegion</i> context.	
<b>Reference</b>	TS-0001 9.6.2.2-1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> a child <i>locationPolicy</i> resource <b>containing</b> <i>locationContainerID</i> attribute <b>set to</b> <i>CONTAINER_ID</i> <b>and</b> a child <i>container</i> resource <b>containing</b> <i>locationID</i> attribute <b>set to</b> <i>LOCATION_POLICY_ID</i> <b>and</b> <i>contentInstance</i> resource <b>containing</b> <i>content</i> attribute <b>set to</b> <i>LOCATION</i> <b>and</b> the AE <b>having</b> privileges to perform <i>OPERATION</i> on the <i>AE_RESOURCE_ADDRESS</i> <b>within</b> <i>LOCATION_RESTRICTION</i> <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid <i>OPERATION</i> <b>containing</b> To <b>set to</b> <i>AE_RESOURCE_ADDRESS</i> <b>and</b> From <b>set to</b> <i>AE_ID</i> <b>and</b> <i>LOCATION</i> <b>within</b> <i>LOCATION_RESTRICTION</i> <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid <i>Response</i> <b>containing</b> <i>Response Status Code</i> <b>set to</b> <i>RESPONSE_STATUS_CODE</i> <b>}</b>	IUT → AE

TP Id	OPERATION	RESPONSE_STATUS_CODE
TP/oneM2M/CSE/SEC/ACP/BV/007_01	CREATE	2001 (CREATED)
TP/oneM2M/CSE/SEC/ACP/BV/007_02	RETRIEVE	2000 (OK)
TP/oneM2M/CSE/SEC/ACP/BV/007_03	UPDATE	2004 (UPDATED)
TP/oneM2M/CSE/SEC/ACP/BV/007_04	DELETE	2002 (DELETED)

TP/oneM2M/CSE/SEC/ACP/BO/008

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BO/008	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries an <i>OPERATION</i> on a <i>AE_RESOURCE_TYPE</i> resource out of <i>accessControlLocationRegion</i> context.	
<b>Reference</b>	TS-0001 9.6.2.2-1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform <i>OPERATION</i> on the <i>AE_RESOURCE_ADDRESS</i> <b>within</b> <i>LOCATION_RESTRICTION</i> <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid <i>OPERATION</i> Request <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>out of</b> LOCATION_RESTRICTION <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4103 (ACCESS_DENIED) <b>}</b>	IUT → AE

TP Id	OPERATION
TP/oneM2M/CSE/SEC/ACP/BO/008_01	2001 (CREATED)
TP/oneM2M/CSE/SEC/ACP/BO/008_02	2000 (OK)
TP/oneM2M/CSE/SEC/ACP/BO/008_03	2004 (UPDATED)
TP/oneM2M/CSE/SEC/ACP/BO/008_04	2002 (DELETED)

TP/oneM2M/CSE/SEC/ACP/BV/009

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BV/009	
<b>Test objective</b>	Check that the IUT responds successfully when the AE tries an <i>OPERATION</i> on a TARGET_RESOURCE_TYPE resource and that the request is within accessControlIpAddresses context.	
<b>Reference</b>	TS-0001 9.6.2.2-1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> privileges to perform <i>OPERATION</i> on the AE_RESOURCE_ADDRESS <b>within</b> IP_ADDRESS_RESTRICTION <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid <i>OPERATION</i> Request <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> AE_IP_ADDRESS <b>within</b> IP_ADDRESS_RESTRICTION <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> RESPONSE_STATUS_CODE <b>}</b>	IUT → AE

TP Id	OPERATION	RESPONSE_STATUS_CODE
TP/oneM2M/CSE/SEC/ACP/BV/009_01	CREATE	2001 (CREATED)
TP/oneM2M/CSE/SEC/ACP/BV/009_02	RETRIEVE	2000 (OK)
TP/oneM2M/CSE/SEC/ACP/BV/009_03	UPDATE	2004 (UPDATED)
TP/oneM2M/CSE/SEC/ACP/BV/009_04	DELETE	2002 (DELETED)

TP/oneM2M/CSE/SEC/ACP/BO/010

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BO/010	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries an <i>OPERATION</i> on a AE_RESOURCE_TYPE resource out of accessControlIpAddresses context.	
<b>Reference</b>	TS-0001 9.6.2.2-1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre>with {   the IUT being in the "initial state"   and the IUT having registered the AE   and the AE having privileges to perform OPERATION on the     AE_RESOURCE_ADDRESS within IP_ADDRESS_RESTRICTION }</pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre>when {   the IUT receives a valid OPERATION Request containing     To set to AE_RESOURCE_ADDRESS and     From set to AE_ID   and AE_IP_ADDRESS out of IP_ADDRESS_RESTRICTION }</pre>	IUT ← AE
	<pre>then {   the IUT sends a valid Response containing     Response Status Code set to 4103 (ACCESS_DENIED) }</pre>	IUT → AE

TP Id	OPERATION
TP/oneM2M/CSE/SEC/ACP/BO/010_01	CREATE
TP/oneM2M/CSE/SEC/ACP/BO/010_02	RETRIEVE
TP/oneM2M/CSE/SEC/ACP/BO/010_03	UPDATE
TP/oneM2M/CSE/SEC/ACP/BO/010_04	DELETE

TP/oneM2M/CSE/SEC/ACP/BV/011

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BV/011	
<b>Test objective</b>	Check that the IUT responds successfully when the AE tries an <i>OPERATION</i> on its child <container> resource whose accessControlPolicyID attribute is not set and AE has privileges for such <i>OPERATION</i> on its associated accessControlPolicy resource	
<b>Reference</b>	TS-0001 9.6.1.3.2-1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre>with {   the IUT being in the "initial state"   and the IUT having registered the AE   and the AE having a child &lt;Container&gt; resource containing     no accessControlPolicyID attribute   and the AE having privileges to perform an OPERATION on the resource     CONTAINER_RESOURCE_ADDRESS }</pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid <i>OPERATION</i> Request <b>containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> RESPONSE_STATUS_CODE <b>}</b>	IUT → AE

TP Id	OPERATION	RESPONSE_STATUS_CODE
TP/oneM2M/CSE/SEC/ACP/BV/011_01	CREATE	2001 (CREATED)
TP/oneM2M/CSE/SEC/ACP/BV/011_02	RETRIEVE	2000 (OK)
TP/oneM2M/CSE/SEC/ACP/BV/011_03	UPDATE	2004 (UPDATED)
TP/oneM2M/CSE/SEC/ACP/BV/011_04	DELETE	2002 (DELETED)

TP/oneM2M/CSE/SEC/ACP/BO/012

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BO/012	
<b>Test objective</b>	Check that the IUT responds with an error when an ORIGINATOR tries an <i>OPERATION</i> on a <Container> resource with no accessControlPolicyID associated and such ORIGINATOR having no privileges for performing the <i>OPERATION</i> on the <Container> resource.	
<b>Reference</b>	TS-0001 9.6.1.3.2-1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE, PICS_ACP_SUPPORT	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> a child <Container> resource <b>containing</b> no accessControlPolicyID attribute <b>and</b> the ORIGINATOR <b>having no</b> privileges to perform an <i>OPERATION</i> on the <Container> resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid <i>OPERATION</i> Request <b>containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> ORIGINATOR_ID <b>}</b>	IUT ← ORIGINATOR
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4103 (ACCESS_DENIED) <b>}</b>	IUT → ORIGINATOR

TP Id	OPERATION
TP/oneM2M/CSE/SEC/ACP/BO/012_01	CREATE
TP/oneM2M/CSE/SEC/ACP/BO/012_02	RETRIEVE
TP/oneM2M/CSE/SEC/ACP/BO/012_03	UPDATE
TP/oneM2M/CSE/SEC/ACP/BO/012_04	DELETE

TP/oneM2M/CSE/SEC/ACP/BO/013

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BO/013	
<b>Test objective</b>	Check that the IUT responds with an error when an ORIGINATOR tries an <i>OPERATION</i> without having privileges for performing the <i>OPERATION</i> on the TARGET_RESOURCE_TYPE resource.	
<b>Reference</b>	TS-0001 9.6.1.3.2-1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the ORIGINATOR <b>having no</b> privileges to perform an <i>OPERATION</i> on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid <i>OPERATION</i> Request <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> ORIGINATOR_ID <b>}</b>	IUT ← ORIGINATOR
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4103 (ACCESS_DENIED) <b>}</b>	IUT → ORIGINATOR

TP Id	OPERATION
TP/oneM2M/CSE/SEC/ACP/BO/013_01	CREATE
TP/oneM2M/CSE/SEC/ACP/BO/013_02	RETRIEVE
TP/oneM2M/CSE/SEC/ACP/BO/013_03	UPDATE
TP/oneM2M/CSE/SEC/ACP/BO/013_04	DELETE

TP/oneM2M/CSE/SEC/ACP/BV/014

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BV/014	
<b>Test objective</b>	Check that the IUT responds successfully when the AE tries an <i>OPERATION</i> on its <AE> resource which has multiple accessControlPolicyID attribute	
<b>Reference</b>	TS-0001 9.6.1.3.2-1 & TS-0001 9.6.2.1-1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having</b> a child <Container> resource <b>containing</b> accessControlPolicyID attribute <b>containing</b> ACP_ID_1 <b>and</b> ACP_ID_2 <b>and</b> the AE <b>having</b> privileges to perform an <i>OPERATION</i> on itself <b>given by</b> ACP_ID_2 only <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid <i>OPERATION</i> Request <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS and From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> RESPONSE_STATUS_CODE <b>}</b>	IUT → AE

TP Id	OPERATION	RESPONSE_STATUS_CODE
TP/oneM2M/CSE/SEC/ACP/BV/014_01	CREATE	2001 (CREATED)
TP/oneM2M/CSE/SEC/ACP/BV/014_02	RETRIEVE	2000 (OK)
TP/oneM2M/CSE/SEC/ACP/BV/014_03	UPDATE	2004 (UPDATED)
TP/oneM2M/CSE/SEC/ACP/BV/014_04	DELETE	2002 (DELETED)



<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BV/015	
<b>Test objective</b>	Check that the IUT updates successfully the accessControlPolicyIDs attribute of the <AE> resource when the AE has privileges for UPDATE operation in any selfPrivileges of the <accessControlPolicy> resources which this attribute originally indicates.	
<b>Reference</b>	TS-0001 9.6.1.3.2-1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> accessControlPolicyID attribute <b>set to</b> ACP_ID_1 <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the AE_RESOURCE_ADDRESS in selfPrivileges <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID Content <b>containing</b> AE resource <b>containing</b> accessControlPolicyIDs attribute <b>set to</b> ACP_ID_2 <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>updates</b> the accessControlPolicyIDs attribute of AE resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b> Content <b>containing</b> AE resource <b>containing</b> accessControlPolicyID attribute <b>set to</b> ACP_ID_2 <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/SEC/ACP/BV/016	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries an UPDATE operation on the accessControlPolicyIDs attribute without having privileges for such operation in any selfPrivileges of the <accessControlPolicy> resources which this attribute originally indicates.	
<b>Reference</b>	TS-0001 9.6.1.3.2-1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>containing</b> accessControlPolicyID attribute <b>set to</b> ACP_ID_1 <b>and</b> the AE <b>having no</b> privileges to perform UPDATE operation on the AE_RESOURCE_ADDRESS in selfPrivileges <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID Content <b>containing</b> AE resource <b>containing</b> accessControlPolicyID attribute <b>set to</b> ACP_ID_2 <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not update</b> the accessControlPolicyIDs attribute of AE resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4103 (ACCESS_DENIED) <b>}</b>	IUT → AE

## 2. CE/SEC/00001/00002

Support the *labels* attribute of <accessControlPolicy> resource

TP/oneM2M/CSE/DMR/CRE/BV/015\_14

TP/oneM2M/CSE/DMR/UPD/BV/014\_09

TP/oneM2M/CSE/DMR/UPD/BV/017\_19

## 3. CE/SEC/00002/00001

Support *accessControlPolicyIDs* attribute for <resource> that the Implementation supports.

TP/oneM2M/CSE/DMR/CRE/BV/015\_01

TP/oneM2M/CSE/DMR/CRE/BV/015\_15

TP/oneM2M/CSE/DMR/UPD/BV/014\_01

TP/oneM2M/CSE/DMR/UPD/BV/014\_12

TP/oneM2M/CSE/DMR/UPD/BV/017\_05

TP/oneM2M/CSE/DMR/UPD/BV/017\_08

TP/oneM2M/CSE/DMR/UPD/BV/017\_13

TP/oneM2M/CSE/DMR/UPD/BV/017\_20

TP/oneM2M/CSE/DMR/UPD/BV/017\_34

## 4. CE/SEC/00002/00002

Support access control decision and enforcement making on the Hosting CSE

CREATE OPERATION

TP/oneM2M/CSE/DMR/CRE/BV/004

<b>TP Id</b>	TP/oneM2M/CSE/DMR/CRE/BV/004
<b>Test objective</b>	Check that the IUT rejects the creation of a <i>RESOURCE_TYPE</i> resource when AE has no privileges
<b>Reference</b>	TS-0001 10.1.1.1
<b>Config Id</b>	CF01
<b>PICS Selection</b>	PICS_CSE

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having no</b> privileges to perform CREATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> AE_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> RESOURCE_TYPE <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the RESOURCE_TYPE resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4103 (ACCESS_DENIED) <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/CRE/BV/004_01	TS-0001 10.2.4.1	3 (container)
TP/oneM2M/CSE/DMR/CRE/BV/004_02	TS-0001 10.2.7.2	9 (group)
TP/oneM2M/CSE/DMR/CRE/BV/004_03	TS-0001 10.2.21.1	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/CRE/BV/004_04		18 (schedule)
TP/oneM2M/CSE/DMR/CRE/BV/004_05	TS-0001 10.2.13.2	15 (pollingChannel)
TP/oneM2M/CSE/DMR/CRE/BV/004_06	TS-0001 10.2.11.2	23 (subscription)

TP/oneM2M/CSE/SUB/BV/002

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/002	
<b>Test objective</b>	Check that the IUT rejects the creation of the <subscription> resource when the originator does not have privileges for retrieving the subscribed-to resource.	
<b>Reference</b>	TS-0001 10.2.11.2 & TS-0004 7.4.8.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a resource PARENT_RESOURCE_ADDRESS <b>containing</b> accessControlPolicyIDs attribute <b>pointing to</b> accessControlPolicy resource <b>containing</b> privileges attribute <b>containing</b> accessControlRule attribute <b>containing</b> accessControlOriginators attribute <b>indicating</b> AE-ID <b>and</b> accessControlOperations attribute <b>not indicating</b> RETRIEVE <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 23 (subscription) <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> subscription resource representation <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the subscription resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4103 (ORIGINATOR_HAS_NO_PRIVILEGE) <b>and</b> <b>no</b> Content <b>}</b>	IUT → AE

TP/oneM2M/CSE/SUB/BV/003

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/003	
<b>Test objective</b>	Check that the IUT rejects the creation of the <subscription> resource when the notificationURI is not the originator and the IUT cannot send the Notify request to the notificationURI	
<b>Reference</b>	TS-0001 10.2.11.2 & TS-0004 7.4.8.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a resource PARENT_RESOURCE_ADDRESS <b>allowing</b> the AE to perform CREATE operation <b>and</b> the IUT <b>not being</b> able to send the NOTIFY Request to the NOTI_URI_ADDRESS <b>containing</b> verificationRequest <b>set to</b> TRUE <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> Resource Type <b>set to</b> 23 (subscription) <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> subscription resource <b>containing</b> notificationURI attribute <b>set to</b> NOTI_URI_ADDRESS <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the subscription resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 5204 (SUBSCRIPTION_VERIFICATION_INITIATION_FAILED) <b>and</b> <b>no</b> Content <b>}</b>	IUT → AE

## RETRIEVE OPERATION

TP/oneM2M/CSE/DMR/RET/BO/003

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BO/003
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to retrieve a resource TARGET_RESOURCE_ADDRESS under AE without having privileges for the RETRIEVE operation

<b>Reference</b>	TS-0001 10.1.2 - item 14	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE under the AE resource <b>and</b> the AE <b>having no</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a Response <b>containing</b> Response Status Code <b>set to</b> 4103 (ACCESS_DENIED) <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/RET/BO/003_01	TS-0001 10.2.4.2	3 (container)
TP/oneM2M/CSE/DMR/RET/BO/003_02	TS-0001 10.2.7.3	9 (group)
TP/oneM2M/CSE/DMR/RET/BO/003_03	TS-0001 10.2.21.2	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/RET/BO/003_04	TS-0001 9.6.9	18 (schedule)
TP/oneM2M/CSE/DMR/RET/BO/003_05	TS-0001 10.2.13.3	15 (pollingChannel)
TP/oneM2M/CSE/DMR/RET/BO/003_06	TS-0001 10.2.11.3	23 (subscription)

TP/oneM2M/CSE/DMR/RET/BO/014

<b>TP Id</b>	TP/oneM2M/CSE/DMR/RET/BO/014	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to retrieve a resource TARGET_RESOURCE_ADDRESS under CSEBase without having privileges for the RETRIEVE operation	
<b>Reference</b>	TS-0001 10.1.2 - item 14	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE under the CSEBase resource <b>and</b> the AE <b>having no</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a Response <b>containing</b> Response Status Code <b>set to</b> 4103 (ACCESS_DENIED) <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/RET/BO/014_01	TS-0001 10.2.21.2	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/RET/BO/014_02	TS-0001 10.2.1.2	2 (AE)
TP/oneM2M/CSE/DMR/RET/BO/014_03	TS-0001 10.2.4.2	3 (container)
TP/oneM2M/CSE/DMR/RET/BO/014_04	TS-0001 10.2.5.3	6 (delivery)
TP/oneM2M/CSE/DMR/RET/BO/014_05	TS-0001 10.2.7.3	9 (group)
TP/oneM2M/CSE/DMR/RET/BO/014_06	TS-0001 10.2.10.1.2	10 (locationPolicy)
TP/oneM2M/CSE/DMR/RET/BO/014_07	TS-0001 10.2.8.3	12 (mgmtCmd)
TP/oneM2M/CSE/DMR/RET/BO/014_08	TS-0001 10.2.14.2	14 (node)
TP/oneM2M/CSE/DMR/RET/BO/014_09	TS-0001 10.2.2.2	16 (remoteCSE)
TP/oneM2M/CSE/DMR/RET/BO/014_10	TS-0001 10.2.20.2	17 (request)
TP/oneM2M/CSE/DMR/RET/BO/014_11	TS-0001 9.6.9	18 (schedule)
TP/oneM2M/CSE/DMR/RET/BO/014_12	TS-0001 10.2.15.11	21 (statsCollect)
TP/oneM2M/CSE/DMR/RET/BO/014_13	TS-0001 10.2.15.3	22 (statsConfig)
TP/oneM2M/CSE/DMR/RET/BO/014_14	TS-0001 10.2.11.3	23 (subscription)

TP/oneM2M/CSE/DIS/BO/005

<b>TP Id</b>	TP/oneM2M/CSE/DIS/BO/005	
<b>Test objective</b>	Check that the IUT rejects the discovery requests to the resource TARGET_RESOURCE_ADDRESS when AE has no privilege to perform the discovery request for the resource TARGET_RESOURCE_ADDRESS	
<b>Reference</b>	TS-0001 10.2.6.2 & 7.2.3.14, TS-0004 7.3.3.14	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the AE <b>having no</b> privileges to perform RETRIEVE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>and</b> Filter Criteria <b>containing</b> filterUsage <b>set to</b> 1 (Discovery Criteria) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT sends a valid Response <b>containing</b> Response Status Code <b>set to</b> 4103 (ACCESS_DENIED) <b>}</b>	IUT → AE

Editor Note: Inopportune Behavior (BO) test cases test against IUT in cases of after receipt of a syntactically correct request primitives but not expected in the actual message exchange or state.

## DELETE OPERATION

TP/oneM2M/CSE/DMR/DEL/BV/002

<b>TP Id</b>	TP/oneM2M/CSE/DMR/DEL/BV/002	
<b>Test objective</b>	Check that the IUT responds with an error when the AE tries to delete the resource TARGET_RESOURCE_ADDRESS without having privileges for the DELETE operation	
<b>Reference</b>	TS-0001 10.1.4	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a resource TARGET_RESOURCE_ADDRESS of type RESOURCE_TYPE <b>and</b> the AE <b>having no</b> privileges to perform DELETE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid DELETE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE_ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not delete</b> the TARGET_RESOURCE_ADDRESS resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4103 (ORIGINATOR_HAS_NO_PRIVILEGE) <b>}</b>	IUT → AE

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/DMR/DEL/BV/002_01	TS-0001 10.2.4.4	3 (container)
TP/oneM2M/CSE/DMR/DEL/BV/002_02	TS-0001 10.2.7.5	9 (group)
TP/oneM2M/CSE/DMR/DEL/BV/002_03	TS-0001 10.2.21.4	1 (accessControlPolicy)
TP/oneM2M/CSE/DMR/DEL/BV/002_04		18 (schedule)
TP/oneM2M/CSE/DMR/DEL/BV/002_05	TS-0001 10.2.13.5	15 (pollingChannel)
TP/oneM2M/CSE/DMR/DEL/BV/002_06	TS-0001 10.2.11.5	23 (subscription)





<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/004	
<b>Test objective</b>	Check that the IUT rejects the creation of the <subscription> resource when the notificationURI is not the originator and the IUT have received the Notify response containing Response Status Code indicating SUBSCRIPTION_CREATOR_HAS_NO_PRIVILEGE	
<b>Reference</b>	TS-0001 10.2.11.2 & TS-0004 7.4.8.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a resource PARENT_RESOURCE_ADDRESS <b>allowing</b> the AE to perform CREATE operation <b>and</b> notificationURI <b>not being</b> the originator <b>and</b> the IUT <b>having</b> sent the NOTIFY Request to the NOTI_URI_ADDRESS <b>containing</b> verificationRequest <b>set to</b> TRUE <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4101 (SUBSCRIPTION_CREATOR_HAS_NO_PRIVILEGE) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the subscription resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 4101 (SUBSCRIPTION_CREATOR_HAS_NO_PRIVILEGE) <b>and</b> <b>no</b> Content <b>}</b>	IUT → AE

<b>TP Id</b>	TP/oneM2M/CSE/SUB/BV/005	
<b>Test objective</b>	Check that the IUT rejects the creation of the <subscription> resource when the notificationURI is not the originator and the IUT have received the Notify response containing Response Status Code indicating SUBSCRIPTION_HOST_HAS_NO_PRIVILEGE	
<b>Reference</b>	TS-0001 10.2.11.2 & TS-0004 7.4.8.2.1	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having</b> a resource PARENT_RESOURCE_ADDRESS <b>allowing</b> the AE to perform CREATE operation <b>and</b> notificationURI <b>not being</b> the originator <b>and</b> the IUT <b>having</b> sent the NOTIFY Request to the NOTI_URI_ADDRESS <b>containing</b> verificationRequest <b>set to</b> TRUE <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid Response containing Response Status Code <b>set to</b> 5205 (SUBSCRIPTION_HOST_HAS_NO_PRIVILEGE) <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>does not create</b> the subscription resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 5205 (SUBSCRIPTION_HOST_HAS_NO_PRIVILEGE) <b>and</b> <b>no</b> Content <b>}</b>	IUT → AE

11.

## 12.Resource Announcement (ANNC)

Editor's Note: All test purposes belongs to current function group are supposed to be reclarified according to features. But the features for Resource Announcement (ANNC) function group are not available yet. Therefore, we will keep test purposes in current section (7.2.3.11) as it is until new features for ANNC are available in TS-0031 [5].

TP/oneM2M/CSE/ANNC/BV/001

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/001	
<b>Test objective</b>	Check that the IUT provides confirmation of the announcement of a resource to the originator of the initiating request after a successful resource announcement procedure	
<b>Reference</b>	TS-0001 10.2.18.1 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF02	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> the PARENT_RESOURCE resource <b>containing</b>  RESOURCE_TYPE resource <b>containing</b>  announceTo attribute <b>set to NULL</b>  <b>and</b> the IUT <b>having announced</b> the PARENT_RESOURCE resource  <b>and</b> the AE <b>having</b> privileges to perform an OPERATION operation on the resource TARGET_RESOURCE_ADDRESS  <b>and</b> the IUT <b>having received</b> a valid OPERATION Request <b>from</b> AE <b>containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  Content <b>containing</b>  RESOURCE_TYPE resource <b>containing</b>  announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS  <b>and</b> The IUT <b>having sent</b> a valid CREATE Request <b>containing</b>  To <b>set</b> ANNC_PARENT_RESOURCE_ADDRESS <b>and</b>  Content <b>containing</b>  RESOURCE_TYPE announced variant resource <b>containing</b>  MA (mandatory) attributes  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid Response <b>from</b> ANNC_TARGET_CSE <b>containing</b>  Response Status Code <b>set to</b> 2001 (CREATED) <b>containing</b>  valid RESOURCE_TYPE announced variant resource representation  <b>}</b></p>	IUT ← CSE
	<p><b>then {</b>  The IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> RESPONSE_STATUS_CODE <b>and</b>  Content <b>containing</b>  RESOURCE_TYPE resource <b>containing</b>  announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS  <b>}</b></p>	IUT → AE

TP Id	OPERATION	RESOURCE_TYPE	RESPONSE_STATUS_CODE
TP/oneM2M/CSE/ANNC/BV/001_01	UPDATE	1 (accessControlPolicy)	2004 (UPDATED)
TP/oneM2M/CSE/ANNC/BV/001_02	CREATE	1 (accessControlPolicy)	2001 (CREATED)
TP/oneM2M/CSE/ANNC/BV/001_03	UPDATE	3 (container)	2004 (UPDATED)
TP/oneM2M/CSE/ANNC/BV/001_04	CREATE	3 (container)	2001 (CREATED)

TP/oneM2M/CSE/ANNC/BV/001_05	UPDATE	9 (group)	2004 (UPDATED)
TP/oneM2M/CSE/ANNC/BV/001_06	CREATE	9 (group)	2001 (CREATED)
TP/oneM2M/CSE/ANNC/BV/001_07	UPDATE	10 (locationPolicy)	2004 (UPDATED)
TP/oneM2M/CSE/ANNC/BV/001_08	CREATE	10 (locationPolicy)	2001 (CREATED)
TP/oneM2M/CSE/ANNC/BV/001_09	UPDATE	13 (mgmtObj)	2004 (UPDATED)
TP/oneM2M/CSE/ANNC/BV/001_10	CREATE	13 (mgmtObj)	2001 (CREATED)
TP/oneM2M/CSE/ANNC/BV/001_11	UPDATE	14 (node)	2004 (UPDATED)
TP/oneM2M/CSE/ANNC/BV/001_12	CREATE	14 (node)	2001 (CREATED)
TP/oneM2M/CSE/ANNC/BV/001_13	UPDATE	18 (schedule)	2004 (UPDATED)
TP/oneM2M/CSE/ANNC/BV/001_14	CREATE	18 (schedule)	2001 (CREATED)
TP/oneM2M/CSE/ANNC/BV/001_15	CREATE	4 (contentInstance)	2001 (CREATED)

TP/oneM2M/CSE/ANNC/BV/002

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/002	
<b>Test objective</b>	Check that the IUT announces successfully the <i>RESOURCE_TYPE</i> resource when a new CSE-ID is provided in announcedTo optional attribute and its parent resource having been announced to the announcement target CSE	
<b>Reference</b>	TS-0001 10.2.18.4 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF02	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p>with {  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> the PARENT_RESOURCE resource <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  announceTo attribute <b>set to NULL</b>  <b>and</b> the IUT <b>having announced</b> the PARENT_RESOURCE resource  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource  TARGET_RESOURCE_ADDRESS  }</p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p>when {  the IUT <b>receives</b> a valid UPDATE Request <b>from AE containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS  }</p>	IUT ← AE
	<p>then {  The IUT <b>sends</b> a valid CREATE Request <b>containing</b>  To <b>set</b> ANNC_PARENT_RESOURCE_ADDRESS <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b>  MA (mandatory) attributes  }</p>	IUT → CSE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/002_01	1 (accesControlPolicy)

TP/oneM2M/CSE/ANNC/BV/002_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/002_03	9 (group)
TP/oneM2M/CSE/ANNC/BV/002_04	10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/002_05	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/002_06	14 (node)
TP/oneM2M/CSE/ANNC/BV/002_07	18 (schedule)

TP/oneM2M/CSE/ANNC/BV/003

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/003	
<b>Test objective</b>	Host of <resourceAnnc> returns the <resourceAnnc> representation in a RETRIEVE response	
<b>Reference</b>	TS-0001 10.2.18.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having registered</b> to the remoteCSE <b>and</b> the IUT <b>having RESOURCE_TYPE</b> announced variant resource <b>containing</b> link attribute <b>set to</b> remoteCSE/ORIGINAL_RESOURCE_ADDRESS <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the <b>RESOURCE_TYPE</b> announced variant resource <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid RETRIEVE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ANNC_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2000 (OK) <b>and</b> Content <b>containing</b> <b>RESOURCE_TYPE</b> announced variant resource representation <b>}</b>	IUT → AE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/003_01	1 (accessControlPolicy)
TP/oneM2M/CSE/ANNC/BV/003_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/003_03	4 (contentInstance)
TP/oneM2M/CSE/ANNC/BV/003_04	9 (group)
TP/oneM2M/CSE/ANNC/BV/003_05	10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/003_06	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/003_07	14 (node)
TP/oneM2M/CSE/ANNC/BV/003_08	18 (schedule)

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/004	
<b>Test objective</b>	Host of <resourceAnn> returns the original <resource> representation from the original resource hosting CSE in a RETRIEVE response when result content is set to "original-resource"	
<b>Reference</b>	TS-0001 10.2.18.2	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having registered</b> to the remoteCSE  <b>and</b> the remoteCSE <b>having created</b> RESOURCE_TYPE  <b>and</b> the IUT <b>having</b> RESOURCE_TYPE announced variant resource <b>containing</b>  link attribute <b>set to</b> remoteCSE/ORIGINAL_RESOURCE_ADDRESS  <b>and</b> the AE <b>having</b> privileges to perform RETRIEVE operation on the RESOURCE_TYPE announced variant resource  Response Status Code <b>set to</b> 2000 (OK) <b>and</b>  Content <b>containing</b>  RESOURCE_TYPE resource representation  <b>and</b> the IUT <b>having received</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> TARGET_RESOURCE_ANNC_ADDRESS <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Result Content <b>set to</b> 7 (original-resource)  <b>no</b> Content  <b>and</b> the IUT <b>having sent</b> a valid RETRIEVE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> remoteCSE/ORIGINAL_RESOURCE_ADDRESS <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  <b>no</b> Content  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> 2000 (OK) <b>and</b>  Content <b>containing</b>  RESOURCE_TYPE resource representation  <b>}</b></p>	IUT ← CSE
	<p><b>then {</b>  the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> 2000 (OK) <b>and</b>  Content <b>containing</b>  RESOURCE_TYPE resource representation  <b>}</b></p>	IUT → AE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/004_01	1 (accessControlPolicy)
TP/oneM2M/CSE/ANNC/BV/004_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/004_03	4 (contentInstance)
TP/oneM2M/CSE/ANNC/BV/004_04	9 (group)
TP/oneM2M/CSE/ANNC/BV/004_05	10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/004_06	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/004_07	14 (node)





TP/oneM2M/CSE/ANNC/BV/005

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/005	
<b>Test objective</b>	Check that the IUT initiates de-announcement of the <i>RESOURCE_TYPE</i> resource when a CSE-ID is deleted from the announceTo optional attribute	
<b>Reference</b>	TS-0001 10.2.18.5 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF02	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a <i>RESOURCE_TYPE</i> resource <b>containing</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b> the IUT <b>having announced</b> the <i>RESOURCE_TYPE</i> resource to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> announceTo attribute <b>set to</b> NULL <b>}</b>	IUT ← AE
	<b>then {</b> The IUT <b>sends</b> a valid DELETE Request <b>containing</b> To <b>set to</b> TARGET_ANNC_RESOURCE_ADDRESS <b>}</b>	IUT → CSE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/005_01	1 (accessControlPolicy)
TP/oneM2M/CSE/ANNC/BV/005_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/005_03	4 (group)
TP/oneM2M/CSE/ANNC/BV/005_04	9 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/005_05	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/005_06	14 (node)
TP/oneM2M/CSE/ANNC/BV/005_07	18 (schedule)

TP/oneM2M/CSE/ANNC/BV/006

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/006
<b>Test objective</b>	Check that the accessControlPolicyIDs attribute is announced when accessControlPolicyIDs attribute of the original resource is not present
<b>Reference</b>	TS-0001 10.2.18.4, 9.6.26.3-1 & TS-0004 7.3.3.10
<b>Config Id</b>	CF01

<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created and announced</b> the PARENT_RESOURCE to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource PARENT_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> container resource <b>containing</b> no accessControlPolicyIDs attribute <b>and</b> no announcedAttribute attribute <b>and</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>}</b>	IUT ← AE
	<b>then {</b> The IUT <b>sends</b> a valid CREATE Request <b>containing</b> To <b>set to</b> REMOTE_CSE_ANNC_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> containerAnnc resource <b>containing</b> MA (mandatory) attributes <b>and</b> valid accessControlPolicyIDs attribute <b>}</b>	IUT → CSE

TP/oneM2M/CSE/ANNC/BO/007

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BO/007	
<b>Test objective</b>	Host CSE of original resource removes an announcement target CSE from the announceTo attribute if it does not return successful CREATE response for the announced resource (for a CREATE initiating resource announcement)	
<b>Reference</b>	10.2.18.4	
<b>Config Id</b>	CF02	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created and announced</b> the container resource <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource CONTAINER_RESOURCE_ADDRESS <b>and</b> the IUT <b>having received</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> contentInstance resource <b>containing</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b> The IUT <b>having sent</b> a valid CREATE Request <b>containing</b> To <b>set to</b> ANNC_CONTAINER_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> contentInstanceAnnc resource <b>containing</b> MA (mandatory) attributes <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>

<b>behaviour</b>	<b>when {</b> the IUT <b>receives</b> a valid Response <b>from</b> ANNC_TARGET_CSE <b>containing</b> Response Status Code <b>set to</b> 4000 (BAD_REQUEST) <b>}</b>	IUT ← CSE
	<b>then {</b> the IUT <b>creates</b> the contentInstance resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2001 (CREATED) <b>and</b> Content <b>containing</b> contentInstance resource <b>containing</b> announceTo attribute <b>set to</b> NULL <b>}</b>	IUT → AE

TP/oneM2M/CSE/ANNC/BV/008

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/008	
<b>Test objective</b>	Check that the IUT provides confirmation of resource de-announcement to the originator of the initiating request after a successful resource de-announcement procedure originator (for a UPDATE initiating resource de-announcement)	
<b>Reference</b>	TS-0001 10.2.18.3 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF02	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a RESOURCE_TYPE resource <b>containing</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b> the IUT <b>having announced</b> the RESOURCE_TYPE resource to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS <b>and</b> the IUT <b>having received</b> a valid UPDATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> Content attribute <b>containing</b> RESOURCE_TYPE resource <b>containing</b> announceTo attribute <b>set to</b> NULL <b>and</b> the IUT <b>having sent</b> a valid DELETE Request <b>containing</b> To <b>set to</b> TARGET_ANNC_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid Response <b>from</b> ANNC_TARGET_CSE <b>containing</b> Response Status Code <b>set to</b> 2002 (DELETED) <b>}</b>	IUT ← CSE
	<b>then {</b> the IUT <b>updates</b> RESOURCE_TYPE resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> announceTo attribute <b>set to</b> NULL <b>}</b>	IUT → AE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/008_01	1 (accessControlPolicy)
TP/oneM2M/CSE/ANNC/BV/008_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/008_03	9 (group)

TP/oneM2M/CSE/ANNC/BV/008_04	10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/008_05	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/008_06	14 (node)
TP/oneM2M/CSE/ANNC/BV/008_07	18 (schedule)

TP/oneM2M/CSE/ANNC/BI/009

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BI/009	
<b>Test objective</b>	HOST CSE of original resource returns INVALID response if announcedAttributes contains an attribute that is not marked OA.	
<b>Reference</b>	TS-0001 10.2.18.1, 10.2.18.4, TS-0004 7.3.1.10	
<b>Config Id</b>	CF02	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> to the remoteCSE1 <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having</b> a resource of type <RESOURCE_TYPE> at TARGET_RESOURCE_ADDRESS <b>containing</b> announceTo attribute <b>set to</b> NULL announcedAttribute attribute <b>set to</b> NULL parentId attribute <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the TARGET_RESOURCE_ADDRESS <b>and</b> the resource at PARENT_RESOURCE_ADDRESS <b>containing</b> announceTo attribute <b>set to</b> remoteCSE1/ANNOUNCED_PARENT_URI <b>and</b> the remoteCSE1 <b>having</b> onlineStatus <b>set to</b> True <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> an invalid UPDATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> announcedAttributes attribute <b>set to</b> pi <b>}</b>	IUT ← AE
	<b>then {</b> the IUT <b>sends</b> a Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) announceTo attribute <b>set to</b> remoteCSE1/ ANNOUNCED_RESOURCE_URI <b>}</b>	IUT → AE

TP/oneM2M/CSE/ANNC/BV/010

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/010
<b>Test objective</b>	Check that the IUT provides confirmation of resource de-announcement to the originator of the initiating request after a successful resource de-announcement procedure (for a DELETE initiating resource de-announcement)
<b>Reference</b>	TS-0001 10.2.18.3 & TS-0004 7.3.3.10

<b>Config Id</b>	CF02	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> <b>and the IUT having registered the AE</b> <b>and the IUT having created a RESOURCE_TYPE resource containing</b> announceTo attribute <b>set to ANNC_TARGET_CSE_ADDRESS</b> <b>and the IUT having announced the RESOURCE_TYPE resource to the announcement</b> target CSE <b>and the AE having privileges to perform DELETE operation on the resource</b> TARGET_RESOURCE_ADDRESS <b>and the IUT having received a valid DELETE Request from AE containing</b> To <b>set to TARGET_RESOURCE_ADDRESS</b> <b>and the IUT having sent a valid DELETE Request containing</b> To <b>set to TARGET_ANNC_RESOURCE_ADDRESS</b> <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid Response <b>from ANNC_TARGET_CSE</b> <b>containing</b> Response Status Code <b>set to 2002 (DELETED)</b> <b>}</b>	IUT ← CSE
	<b>then {</b> the IUT <b>deletes</b> the <b>RESOURCE_TYPE</b> resource <b>and the IUT sends</b> a valid Response <b>containing</b> Response Status Code <b>set to 2002 (DELETED)</b> <b>}</b>	IUT → AE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/010_01	1 (accessControlPolicy)
TP/oneM2M/CSE/ANNC/BV/010_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/010_04	9 (group)
TP/oneM2M/CSE/ANNC/BV/010_05	10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/010_06	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/010_07	14 (node)
TP/oneM2M/CSE/ANNC/BV/010_08	18 (schedule)

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/011	
<b>Test objective</b>	Check that the IUT announces successfully the <i>RESOURCE_TYPE</i> resource during its creation when announceTo optional attribute is provided and its parent resource having been announced to the announcement target CSE	
<b>Reference</b>	TS-0001 10.2.18.4 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> and <b>announced</b> the PARENT_RESOURCE resource <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource PARENT_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>}</b>	IUT ← AE
	<b>then {</b> The IUT <b>sends</b> a valid CREATE Request <b>containing</b> To <b>set to</b> ANNC_PARENT_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b> MA (mandatory) attributes <b>}</b>	IUT → CSE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/011_01	1 (accessControlPolicy)
TP/oneM2M/CSE/ANNC/BV/011_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/011_03	4 (contentInstance)
TP/oneM2M/CSE/ANNC/BV/011_04	9 (group)
TP/oneM2M/CSE/ANNC/BV/011_05	10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/011_06	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/011_07	14 (node)
TP/oneM2M/CSE/ANNC/BV/011_08	18 (schedule)

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/012
<b>Test objective</b>	Check that the IUT announces successfully the <i>RESOURCE_TYPE</i> resource during its creation when announceTo optional attribute is provided and IUT having been already announced to announcement target CSE

<b>Reference</b>	TS-0001 10.2.18.4 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> the PARENT_RESOURCE resource <b>and</b> the IUT <b>having been announced</b> to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource PARENT_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>}</b>	IUT ← AE
	<b>then {</b> The IUT <b>sends</b> a valid CREATE Request <b>containing</b> To <b>set to</b> REMOTE_CSE_ANNC_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> RESOURCE_TYPE announced variant resource <b>containing</b> MA (mandatory) attributes <b>}</b>	IUT → CSE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/012_01	1 (accessControlPolicy)
TP/oneM2M/CSE/ANNC/BV/012_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/012_03	4 (contentInstance)
TP/oneM2M/CSE/ANNC/BV/012_04	9 (group)
TP/oneM2M/CSE/ANNC/BV/012_05	10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/012_06	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/012_07	14 (node)
TP/oneM2M/CSE/ANNC/BV/012_08	18 (schedule)

TP/oneM2M/CSE/ANNC/BV/013

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/013
<b>Test objective</b>	Check that the IUT announces successfully the RESOURCE_TYPE resource during its creation when announceTo optional attribute is provided and IUT has registered and created a <remoteCSE> resource to the announcement target CSE
<b>Reference</b>	TS-0001 10.2.18.4 & TS-0004 7.3.3.10
<b>Config Id</b>	CF01
<b>PICS Selection</b>	PICS_CSE

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> the PARENT_RESOURCE resource <b>and</b> the IUT <b>having registered and created</b> a remoteCSE resource to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource PARENT_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> RESOURCE_TYPE resource <b>containing</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>}</b>	IUT ← AE
	<b>then {</b> The IUT <b>sends</b> a valid CREATE Request <b>containing</b> To <b>set to</b> REMOTE_CSE_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> RESOURCE_TYPE announced variant resource <b>containing</b> MA (mandatory) attributes <b>}</b>	IUT → CSE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/013_01	1 (accessControlPolicy)
TP/oneM2M/CSE/ANNC/BV/013_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/013_03	4 (contentInstance)
TP/oneM2M/CSE/ANNC/BV/013_04	9 (group)
TP/oneM2M/CSE/ANNC/BV/013_05	10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/013_06	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/013_07	14 (node)
TP/oneM2M/CSE/ANNC/BV/013_08	18 (schedule)



<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/014	
<b>Test objective</b>	Check that the IUT announces successfully the <i>RESOURCE_TYPE</i> resource during its creation when announceTo optional attribute is provided and IUT having not been announced to announcement target CSE	
<b>Reference</b>	TS-0001 10.2.18.4 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> the PARENT_RESOURCE resource  <b>and</b> the IUT <b>having not been announced nor registered</b> to the announcement target CSE  <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource PARENT_RESOURCE_ADDRESS  <b>and</b> the IUT <b>having received</b> a valid CREATE Request <b>containing</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>sends</b> a valid CREATE Request <b>containing</b>  To <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b>  Content <b>containing</b>  remoteCSEAnnc resource representation  <b>}</b></p>	IUT → CSE
	<p><b>then {</b>  The IUT <b>sends</b> a valid CREATE Request <b>containing</b>  To <b>set to</b> REMOTE_CSE_ANNC_RESOURCE_ADDRESS <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b>  MA (mandatory) attributes  <b>}</b></p>	IUT → CSE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/014_01	1 (accessControlPolicy)
TP/oneM2M/CSE/ANNC/BV/014_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/014_03	4 (contentInstance)
TP/oneM2M/CSE/ANNC/BV/014_04	9 (group)
TP/oneM2M/CSE/ANNC/BV/014_05	10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/014_06	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/014_07	14 (node)
TP/oneM2M/CSE/ANNC/BV/014_08	18 (schedule)

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/015	
<b>Test objective</b>	Check that the IUT announces successfully the <i>RESOURCE_TYPE</i> resource during its creation when announceTo and announcedAttribute optional attributes are provided and its parent resource having been announced to the announcement target CSE	
<b>Reference</b>	TS-0001 10.2.18.6 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created and announced</b> the PARENT_RESOURCE to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource PARENT_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> OA_ATTRIBUTE attribute <b>set to</b> VALUE <b>and</b> announcedAttribute attribute <b>set to</b> OA_ATTRIBUTE <b>and</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>}</b>	IUT ← AE
	<b>then {</b> The IUT <b>sends</b> a valid CREATE Request <b>containing</b> To <b>set to</b> ANNC_PARENT_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b> MA (mandatory) attributes <b>and</b> OA_ATTRIBUTE attribute <b>set to</b> VALUE <b>}</b>	IUT → CSE

TP Id	RESOURCE_TYPE	OA_ATTRIBUTE
TP/oneM2M/CSE/ANNC/BV/015_01	1 (acceControlPolicy)	maxByteSyze
TP/oneM2M/CSE/ANNC/BV/015_02	3 (container)	contentInfo
TP/oneM2M/CSE/ANNC/BV/015_03	4 (contentInstance)	memberType
TP/oneM2M/CSE/ANNC/BV/015_04	9 (group)	locationContainerID
TP/oneM2M/CSE/ANNC/BV/015_05	10 (locationPolicy)	description
TP/oneM2M/CSE/ANNC/BV/015_06	13 (mgmtObj)	hostedCSELINK
TP/oneM2M/CSE/ANNC/BV/015_07	14 (node)	scheduleElement

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/016	
<b>Test objective</b>	Check that the labels attribute is announced when such attribute is present in the original resource	
<b>Reference</b>	TS-0001 10.2.18.4, 9.6.26.3-1 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created and announced</b> the PARENT_RESOURCE to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource PARENT_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid CREATE Request <b>from AE containing</b> To <b>set to</b> PARENT_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> container resource <b>containing</b> <b>no</b> announcedAttribute attribute <b>and</b> labels attribute <b>set to</b> VALUE <b>and</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>}</b>	IUT ← AE
	<b>then {</b> The IUT <b>sends</b> a valid CREATE Request <b>containing</b> To <b>set to</b> REMOTE_CSE_ANNC_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> containerAnnc resource <b>containing</b> MA (mandatory) attributes <b>and</b> labels attribute <b>set to</b> VALUE <b>}</b>	IUT → CSE

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/017	
<b>Test objective</b>	Check that the labels attribute is de-announced when such attribute is deleted from the original resource	
<b>Reference</b>	TS-0001 10.2.18.4, 9.6.26.3-1 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a container resource <b>containing</b>  announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b>  valid labels attribute  <b>and</b> the IUT <b>having announced</b> the container resource to the announcement target CSE  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource  CONTAINER_RESOURCE_ADDRESS  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> CONTAINER_RESOURCE_ADDRESS <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Content <b>containing</b>  container resource <b>containing</b>  labels attribute <b>set to</b> NULL  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  The IUT <b>sends</b> a valid UPDATE Request <b>containing</b>  To <b>set to</b> CONTAINER_ANNC_RESOURCE_ADDRESS <b>and</b>  Content <b>containing</b>  containerAnnc resource <b>containing</b>  labels attribute <b>set to</b> NULL  <b>}</b></p>	IUT → CSE

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/018	
<b>Test objective</b>	Check that the IUT announces successfully the <i>RESOURCE_TYPE</i> resource when a new CSE-ID is provided in announcedTo optional attribute and IUT having been already announced to announcement target CSE	
<b>Reference</b>	TS-0001 10.2.18.4 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> the <i>RESOURCE_TYPE</i> resource <b>and</b> the IUT <b>having been announced</b> to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request from AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>}</b>	IUT ← AE
	<b>then {</b> The IUT <b>sends</b> a valid CREATE Request <b>containing</b> To <b>set to</b> REMOTE_CSE_ANNC_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b> MA (mandatory) attributes <b>}</b>	IUT → CSE

TP Id	Reference	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/018_01		1 (accessControlPolicy)
TP/oneM2M/CSE/ANNC/BV/018_02		3 (container)
TP/oneM2M/CSE/ANNC/BV/018_03		9 (group)
TP/oneM2M/CSE/ANNC/BV/018_04		10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/018_05		13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/018_06		14 (node)
TP/oneM2M/CSE/ANNC/BV/018_07		18 (schedule)

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/019	
<b>Test objective</b>	Check that the IUT announces successfully the <i>RESOURCE_TYPE</i> resource when a new CSE-ID is provided in announcedTo optional attribute and IUT has registered and created a <remoteCSE> resource to the announcement target CSE	
<b>Reference</b>	TS-0001 10.2.18.4 & TS-0004 7.3.3.10	

<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> the <i>RESOURCE_TYPE</i> resource <b>and</b> the IUT <b>having registered and created</b> a remoteCSE resource to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from AE containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>}</b>	IUT ← AE
	<b>then {</b> The IUT <b>sends</b> a valid CREATE Request <b>containing</b> To <b>set to</b> REMOTE_CSE_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b> MA (mandatory) attributes <b>}</b>	IUT → CSE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/019_01	1 (accessControlPolicy)
TP/oneM2M/CSE/ANNC/BV/019_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/019_03	9 (group)
TP/oneM2M/CSE/ANNC/BV/019_04	10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/019_05	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/019_06	14 (node)
TP/oneM2M/CSE/ANNC/BV/019_07	18 (schedule)

TP/oneM2M/CSE/ANNC/BV/020

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/020
<b>Test objective</b>	Check that the IUT announces successfully the <i>RESOURCE_TYPE</i> resource when a new CSE-ID is provided in announcedTo optional attribute and IUT having not been announced to announcement target CSE
<b>Reference</b>	TS-0001 10.2.18.4 & TS-0004 7.3.3.10
<b>Config Id</b>	CF01
<b>PICS Selection</b>	PICS_CSE

<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> the <i>RESOURCE_TYPE</i> resource <b>and</b> the IUT <b>having not been announced nor registered</b> to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS <b>and</b> the IUT <b>having received</b> a valid UPDATE Request <b>containing</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>sends</b> a valid CREATE Request <b>containing</b> To <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b> Content <b>containing</b> remoteCSEAnnc resource <b>}</b>	IUT → CSE
	<b>then {</b> The IUT <b>sends</b> a valid CREATE Request <b>containing</b> To <b>set to</b> REMOTE_CSE_ANNC_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b> MA (mandatory) attributes <b>}</b>	IUT → CSE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/020_01	1 (accessControlPolicy)
TP/oneM2M/CSE/ANNC/BV/020_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/020_03	9 (group)
TP/oneM2M/CSE/ANNC/BV/020_04	10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/020_05	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/020_06	14 (node)
TP/oneM2M/CSE/ANNC/BV/020_07	18 (schedule)

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/021	
<b>Test objective</b>	Check that the IUT provides confirmation of the announcement of an attribute to the originator of the initiating request after a successful attribute announcement procedure	
<b>Reference</b>	TS-0001 10.2.18.6 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a <i>RESOURCE_TYPE</i> resource <b>containing</b>  <i>OA_ATTRIBUTE</i> attribute <b>set to</b> VALUE <b>and</b>  announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b>  announcedAttribute attribute <b>set to</b> NULL  <b>and</b> the IUT <b>having announced</b> the <i>RESOURCE_TYPE</i> resource to the announcement target CSE  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS  <b>and</b> the IUT <b>having received</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  announcedAttribute attribute <b>set to</b> <i>OA_ATTRIBUTE</i>  <b>and</b> the IUT <b>having sent</b> a valid UPDATE Request <b>containing</b>  To <b>set to</b> TARGET_ANNC_RESOURCE_ADDRESS <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b>  <i>OA_ATTRIBUTE</i> attribute <b>set to</b> VALUE  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid Response <b>from</b> ANNC_TARGET_CSE <b>containing</b>  Response Status Code <b>set to</b> 2004 (UPDATED) <b>containing</b>  valid <i>RESOURCE_TYPE</i> announced variant resource representation <b>}</b></p>	IUT ← CSE
	<p><b>then {</b>  the IUT <b>updates</b> the <i>RESOURCE_TYPE</i> resource  <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b>  Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  announcedAttribute attribute <b>set to</b> <i>OA_ATTRIBUTE</i>  <b>}</b></p>	IUT → AE

TP Id	RESOURCE_TYPE	OA_ATTRIBUTE
TP/oneM2M/CSE/ANNC/BV/021_01	3 (container)	maxByteSyze
TP/oneM2M/CSE/ANNC/BV/021_02	9 (group)	memberType
TP/oneM2M/CSE/ANNC/BV/021_03	10 (locationPolicy)	locationContainerID
TP/oneM2M/CSE/ANNC/BV/021_04	13 (mgmtObj)	description
TP/oneM2M/CSE/ANNC/BV/021_05	14 (node)	hostedCSELink
TP/oneM2M/CSE/ANNC/BV/021_06	18 (schedule)	scheduleElement



<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/022	
<b>Test objective</b>	Check that the IUT updates successfully <i>RESOURCE_TYPE</i> announced variant resource when a new OA attribute is provided to announcedAttribute attribute of the original resource	
<b>Reference</b>	TS-0001 10.2.18.8 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a <i>RESOURCE_TYPE</i> resource <b>containing</b>  OA_ATTRIBUTE attribute <b>set to</b> VALUE <b>and</b>  announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b>  announcedAttribute attribute <b>set to</b> NULL  <b>and</b> the IUT <b>having announced</b> the <i>RESOURCE_TYPE</i> resource to the announcement target CSE  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  announcedAttribute attribute <b>set to</b> OA_ATTRIBUTE  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  The IUT <b>sends</b> a valid UPDATE Request <b>containing</b>  To <b>set to</b> TARGET_ANNC_RESOURCE_ADDRESS <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b>  OA_ATTRIBUTE attribute <b>set to</b> VALUE  <b>}</b></p>	IUT → CSE

TP Id	RESOURCE_TYPE	OA_ATTRIBUTE
TP/oneM2M/CSE/ANNC/BV/022_01	3 (container)	maxByteSyze
TP/oneM2M/CSE/ANNC/BV/022_02	9 (group)	memberType
TP/oneM2M/CSE/ANNC/BV/022_03	10 (locationPolicy)	locationContainerID
TP/oneM2M/CSE/ANNC/BV/022_04	13 (mgmtObj)	description
TP/oneM2M/CSE/ANNC/BV/022_05	14 (node)	hostedCSELink
TP/oneM2M/CSE/ANNC/BV/022_06	18 (schedule)	scheduleElement

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/023	
<b>Test objective</b>	Check that the IUT updates successfully the <i>RESOURCE_TYPE</i> announced variant resource when a MA attribute of its original resource is updated.	
<b>Reference</b>	TS-0001 10.2.18.10 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a <i>RESOURCE_TYPE</i> resource <b>containing</b> expirationTime attribute <b>set to</b> VALUE_1 <b>and</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b> the IUT <b>having announced</b> the <i>RESOURCE_TYPE</i> resource to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> expirationTime attribute <b>set to</b> VALUE_2 <b>}</b>	IUT ← AE
	<b>then {</b> The IUT <b>sends</b> a valid UPDATE Request <b>containing</b> To <b>set to</b> TARGET_ANNC_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b> expirationTime attribute <b>set to</b> VALUE_2 <b>}</b>	IUT → CSE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/023_01	1 (accessControlPolicy)
TP/oneM2M/CSE/ANNC/BV/023_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/023_03	9 (group)
TP/oneM2M/CSE/ANNC/BV/023_04	10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/023_05	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/023_06	14 (node)
TP/oneM2M/CSE/ANNC/BV/023_07	18 (schedule)

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/024	
<b>Test objective</b>	Check that the IUT updates successfully the <i>RESOURCE_TYPE</i> announced variant resource when a optional attribute present in the announcedAttribute attribute of its original resource is updated.	
<b>Reference</b>	TS-0001 10.2.18.10 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a <i>RESOURCE_TYPE</i> resource <b>containing</b>  <i>OA_ATTRIBUTE</i> attribute <b>set to</b> VALUE_1 <b>and</b>  announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b>  announcedAttribute attribute <b>set to</b> <i>OA_ATTRIBUTE</i>  <b>and</b> the IUT <b>having announced</b> the <i>RESOURCE_TYPE</i> resource to the announcement target CSE  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  From <b>set to</b> AE-ID <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  <i>OA_ATTRIBUTE</i> attribute <b>set to</b> VALUE_2  <b>}</b></p>	IUT ← AE
	<p><b>then {</b>  The IUT <b>sends</b> a valid UPDATE Request <b>containing</b>  To <b>set to</b> TARGET_ANNC_RESOURCE_ADDRESS <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b>  <i>OA_ATTRIBUTE</i> attribute <b>set to</b> VALUE_2  <b>}</b></p>	IUT → CSE

TP Id	RESOURCE_TYPE	OA_ATTRIBUTE
TP/oneM2M/CSE/ANNC/BV/024_01	3 (container)	maxByteSyze
TP/oneM2M/CSE/ANNC/BV/024_02	9 (group)	memberType
TP/oneM2M/CSE/ANNC/BV/024_03	10 (locationPolicy)	locationContainerID
TP/oneM2M/CSE/ANNC/BV/024_04	13 (mgmtObj)	description
TP/oneM2M/CSE/ANNC/BV/024_05	14 (node)	hostedCSELink
TP/oneM2M/CSE/ANNC/BV/024_06	18 (schedule)	scheduleElement

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/025	
<b>Test objective</b>	Check that the IUT de-announces successfully an announced attribute when such attribute is deleted from announcedAttribute attribute.	
<b>Reference</b>	TS-0001 10.2.18.9 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> a <i>RESOURCE_TYPE</i> resource <b>containing</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b> announcedAttribute attribute <b>set to</b> OA_ATTRIBUTE <b>and</b> valid <i>OA_ATTRIBUTE</i> attribute <b>and</b> the IUT <b>having announced</b> the <i>RESOURCE_TYPE</i> resource to the announcement target CSE <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource TARGET_RESOURCE_ADDRESS <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid UPDATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> resource <b>containing</b> announcedAttribute attribute <b>set to</b> NULL <b>}</b>	IUT ← AE
	<b>then {</b> The IUT <b>sends</b> a valid UPDATE Request <b>containing</b> To <b>set to</b> TARGET_ANNC_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b> <i>OA_ATTRIBUTE</i> attribute <b>set to</b> NULL <b>}</b>	IUT → CSE

TP Id	RESOURCE_TYPE	OA_ATTRIBUTE
TP/oneM2M/CSE/ANNC/BV/025_01	3 (container)	maxByteSyze
TP/oneM2M/CSE/ANNC/BV/025_02	9 (group)	memberType
TP/oneM2M/CSE/ANNC/BV/025_03	10 (locationPolicy)	locationContainerID
TP/oneM2M/CSE/ANNC/BV/025_04	13 (mgmtObj)	description
TP/oneM2M/CSE/ANNC/BV/025_05	14 (node)	hostedCSELink
TP/oneM2M/CSE/ANNC/BV/025_06	18 (schedule)	scheduleElement

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/026
<b>Test objective</b>	Check that the IUT provides confirmation of the de-announcement of an attribute to the originator of the initiating request after a successful attribute de-announcement procedure
<b>Reference</b>	TS-0001 10.2.18.7 & TS-0004 7.3.3.10
<b>Config Id</b>	CF01

<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<p><b>with {</b>  the IUT <b>being</b> in the "initial state"  <b>and</b> the IUT <b>having registered</b> the AE  <b>and</b> the IUT <b>having created</b> a <i>RESOURCE_TYPE</i> resource <b>containing</b>  announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b>  announcedAttribute attribute <b>set to</b> OA_ATTRIBUTE <b>and</b>  valid OA_ATTRIBUTE attribute  <b>and</b> the IUT <b>having announced</b> the <i>RESOURCE_TYPE</i> resource to the announcement  target CSE  <b>and</b> the AE <b>having</b> privileges to perform UPDATE operation on the resource  TARGET_RESOURCE_ADDRESS  <b>and</b> the IUT <b>having received</b> a valid UPDATE Request <b>from</b> AE <b>containing</b>  To <b>set to</b> TARGET_RESOURCE_ADDRESS <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  announcedAttribute attribute <b>set to</b> NULL  <b>and</b> The IUT <b>having sent</b> a valid UPDATE Request <b>containing</b>  To <b>set to</b> TARGET_ANNC_RESOURCE_ADDRESS <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b>  OA_ATTRIBUTE attribute <b>set to</b> NULL  <b>}</b></p>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<p><b>when {</b>  the IUT <b>receives</b> a valid Response <b>from</b> ANNC_TARGET_CSE  <b>containing</b>  Response Status Code <b>set to</b> 2004 (UPDATED) <b>containing</b>  <i>RESOURCE_TYPE</i> announced variant resource <b>containing</b>  OA_ATTRIBUTE attribute <b>set to</b> NULL  <b>}</b></p>	IUT ← CSE
	<p><b>then {</b>  the IUT <b>updates</b> the <i>RESOURCE_TYPE</i> resource  <b>and</b> the IUT <b>sends</b> valid Response <b>containing</b>  Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b>  Content <b>containing</b>  <i>RESOURCE_TYPE</i> resource <b>containing</b>  announcedAttribute attribute <b>set to</b> NULL  <b>}</b></p>	IUT → AE

TP Id	RESOURCE_TYPE	OA_ATTRIBUTE	PICS
TP/oneM2M/CSE/ANNC/BV/026_01	3 (container)	maxByteSyze	PICS_IN_PROFILE
TP/oneM2M/CSE/ANNC/BV/026_02	9 (group)	memberType	
TP/oneM2M/CSE/ANNC/BV/026_03	10 (locationPolicy)	locationContainerID	
TP/oneM2M/CSE/ANNC/BV/026_04	13 (mgmtObj)	description	
TP/oneM2M/CSE/ANNC/BV/026_05	14 (node)	hostedCSELink	
TP/oneM2M/CSE/ANNC/BV/026_06	18 (schedule)	scheduleElement	

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/027	
<b>Test objective</b>	Check that the IUT deletes all announced resources when the original resource is deleted.	
<b>Reference</b>	TS-0001 9.6.26.1, TS-0001 10.2.18.5 & TS-0004 7.3.3.10	
<b>Config Id</b>	CF01	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<pre>with {   the IUT <b>being</b> in the "initial state"   and the IUT <b>having registered</b> the AE   and the IUT <b>having created</b> a RESOURCE_TYPE resource <b>containing</b>     announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS   and the IUT <b>having announced</b> the RESOURCE_TYPE resource to the announcement   target CSE   and the AE <b>having</b> privileges to perform DELETE operation on the resource   TARGET_RESOURCE_ADDRESS }</pre>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<pre>when {   the IUT <b>receives</b> a valid DELETE Request <b>from</b> AE <b>containing</b>     To <b>set to</b> TARGET_RESOURCE_ADDRESS }</pre>	IUT ← AE
	<pre>then {   The IUT <b>sends</b> a valid DELETE Request <b>containing</b>     To <b>set to</b> TARGET_RESOURCE_ANNC_ADDRESS }</pre>	IUT → CSE

TP Id	RESOURCE_TYPE
TP/oneM2M/CSE/ANNC/BV/027_01	1(accesControlPolicy)
TP/oneM2M/CSE/ANNC/BV/027_02	3 (container)
TP/oneM2M/CSE/ANNC/BV/027_03	9 (group)
TP/oneM2M/CSE/ANNC/BV/027_04	10 (locationPolicy)
TP/oneM2M/CSE/ANNC/BV/027_05	13 (mgmtObj)
TP/oneM2M/CSE/ANNC/BV/027_06	14 (node)
TP/oneM2M/CSE/ANNC/BV/027_07	18 (schedule)

<b>TP Id</b>	TP/oneM2M/CSE/ANNC/BV/028	
<b>Test objective</b>	Host CSE of original resource removes an announcement target CSE from the announceTo attribute if it does not return successful CREATE response for the announced resource (for a UPDATE initiating resource announcement)	
<b>Reference</b>	10.2.18.4	
<b>Config Id</b>	CF02	
<b>PICS Selection</b>	PICS_CSE	
<b>Initial conditions</b>	<b>with {</b> the IUT <b>being</b> in the "initial state" <b>and</b> the IUT <b>having registered</b> the AE <b>and</b> the IUT <b>having created</b> and <b>announced</b> the container resource <b>and</b> the AE <b>having</b> privileges to perform CREATE operation on the resource CONTAINER_RESOURCE_ADDRESS <b>and</b> the IUT <b>having received</b> a valid UPDATE Request <b>from</b> AE <b>containing</b> To <b>set to</b> CONTAINER_RESOURCE_ADDRESS <b>and</b> From <b>set to</b> AE-ID <b>and</b> Content <b>containing</b> container resource <b>containing</b> announceTo attribute <b>set to</b> ANNC_TARGET_CSE_ADDRESS <b>and</b> The IUT <b>having sent</b> a valid CREATE Request <b>containing</b> To <b>set to</b> ANNC_CONTAINER_RESOURCE_ADDRESS <b>and</b> Content <b>containing</b> containerAnnc resource <b>containing</b> MA (mandatory) attributes <b>}</b>	
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	<b>when {</b> the IUT <b>receives</b> a valid Response <b>from</b> ANNC_TARGET_CSE <b>containing</b> Response Status Code <b>set to</b> 4000 (BAD_REQUEST) <b>}</b>	IUT ← CSE
	<b>then {</b> the IUT <b>updates</b> the container resource <b>and</b> the IUT <b>sends</b> a valid Response <b>containing</b> Response Status Code <b>set to</b> 2004 (UPDATED) <b>and</b> Content <b>containing</b> container resource <b>containing</b> announceTo attribute <b>set to</b> NULL <b>}</b>	IUT → AE

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## Annexes

Each annex **shall** start on a new page (insert a page break between annexes A and B, annexes B and C, etc.).

Use the **Heading 9** style for the title and the **Normal** style for the text.s

## Annex <A> Conformance Test Requirement

### A.1 MQTT Protocol Conformance Test Requirement

Test Items	TS Chapter	Obligation	Condition for Optional Item	Checking point	Fail condition	
Commonly Repeated Items	TS-0010, Sec5.1	Mandatory		"QoS=1"	Fail when QoS is other than "1"	
	TS-0010, Sec5.1	Mandatory		"Retain" flag set as "0"	Fail if DUT sends with "Retain" flag=1	
Connection Items	Connect	TS-0010, Sec6.3	Mandatory		Prefix A:: or C:: is added to the ID	Fail if Prefix A:: or C:: are not added to the ID
		TS-0010, Sec6.3	Mandatory		if Clean session (ex: Retain) flag is set to "False" in CONNECT	Fail when clean session is "True" when DUT want to be connected
		TS-0010, Sec6.3	Mandatory		if "Will Flag" is not set in CONNECT	Fail when will flag is enabled
	Disconnect	TS-0010, Sec6.3	Mandatory		if Clean session (ex: Retain) flag is set to "True" in CONNECT	Fail when clean session is "False" when DUT want to be disconnected
Subscription Items	TS-0010, Sec5.1	Mandatory		if the message is set to Durable	Fail is the message is not Durable	
	TS-0010, Sec6.4.4	Conditional	(for Initial Registration) when Originator doesn't know its ID	if DUT's Initial ID assigning /oneM2M/reg_req/<originator>/<receiver> oneM2M/reg_resp/<originator>/<receiver>	Fail if DUT's ID assigning is other than this	
	TS-0010, Figure 6.4.5-2	Conditional	when Originator knows its ID	if DUT's Initial ID assigning oneM2M/reg/<Originator>/<Receiver>	Fail if DUT's ID assigning is other than this	



Publish Item	TS-0010, Figure 6.4.5-2	Conditional	When Originator uses wild card	if DUT's Initial ID assigning oneM2M/req/+/<Receiver>	Fail if DUT's ID assigning is other than this
	MQTT v3.1.1	Conditional		if the has proper Primitive contents ("op", "fr", "to", "ri", "pc", "ty")	Fail if any of primitive contents feature wrong
Reception Item	TS-0010, Figure 6.4.5-2	Conditional	when Originator knows it's ID	if DUT's Initial ID assigning oneM2M/resp/<Originator>/<Receiver>	Fail if DUT's ID assigning is other than this
	TS-0010, Figure 6.4.5-2	Conditional	When Originator uses wild card	if DUT's Initial ID assigning oneM2M/resp/<Originator>/+	Fail if DUT's ID assigning is other than this
	TS-0010, Figure 6.4.5-2	Conditional		server Delete received contents properly not storing data	Fail if Receiver stores message
	TS-0010, Figure 6.4.5-2	Conditional		If the receiver sends PubACK when receives messages	Fail if the receiver doesn't send PubACK
	MQTT v3.1.1	Mandatory		if the has proper Primitive contents ("op", "fr", "to", "ri", "pc", "ty")	Fail if any of primitive contents feature wrong

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## Annex <B>(Informative): TP template

<b>TP Id</b>		
<b>Test objective</b>		
<b>Reference</b>		
<b>Config Id</b>		
<b>PICS Selection</b>		
<b>Initial conditions</b>		
<b>Expected behaviour</b>	<b>Test events</b>	<b>Direction</b>
	when { }	IUT ← AE
	then { }	IUT → AE

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## Annex <y>: Bibliography

*The annex entitled "Bibliography" is optional.*

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*This clause shall be the last one in the document and list the main phases (all additional information will be removed at the publication stage).*

Publication history		

Draft history (to be removed on publication)		
V.0.0.1	22 April 2015	Initial Draft Version (based on TST-2015-0071R01)
V.0.0.2	15 July 2015	Add the agreed document from TST 17.3 (TST-2015-0115R01-Test_Purposes_contributions)
V.0.0.3	25 August 2015	Add the agreed document from TST 18 (TST-2015-0138R03 TSS List and Test Purposes contributions) (TST-2015-0152R01 MQTT binding Requirement)
V.0.0.4	26 October 2015	Add the agreed document from TST 19 (TST-2015-0184R02 TS-0018-TSS contribution) (TST-2015-0185R02 TS-0018-TP Definition conventions contribution) (TST-2015-0200 TS-0018-TP template)
V.0.0.5	14 January 2016	Add the agreed document from TST 20 (TST-2015-0217R02-TS-0018-GMG_Test_Purposes_contribution) (TST-2015-0221R01-DIS_LOC_Test_Purpose_Contributions) (TST-2015-0222R01-SUB_Test_Purposes) (TST-2015-0234R01-TS-0018_DMR_Test_Purposes_with_Result_Content_param)
V.0.0.6	18 January 2016	Add the agreed document from TST 19.2 (TST-2015-0212-TS-0018-Test_Purposes_contribution)
V.0.0.7	09 March 2016	Add the agreed document from TST 21.2 (TST-2016-0034R01 TS-0018-Test Purposes contribution) (TST-2016-0035R01 Test_Purpose_GMG_CREATE)
V.0.0.8	02 May 2016	Add the agreed document from TST 22 (TST-2016-0056-Test_Purpose_GMG_CREATE_crs_accepted) (TST-2016-0047R01-TS-0018-Test_Purposes_contribution) (TST-2016-0058-Test_Purposes_for_DIS) (TST-2016-0059-Test_Purposes_for_LOC)
V.0.1.0	16 May 2016	Add the agreed document from TST 22.3 (TST-2016-0081-TS-0018-Test_purpose_contribution)

V0.1.1	18 July 2016	Add the agreed documents from TST 22.2 (TST-2016-0066R02-Test_Purpose_GMG_UPDATE) (TST-2016-0067R02-Test_Purpose_GMG_UPDATE_REMOTE)
V0.1.2	22 September	Add the agreed documents from TST 24 (TST-2016-0124R01-CR_TS-0018-Update_LOC_testcase)
V0.1.3	10 October	Add the agreed documents from TST 24.x (TST-2016-0134R02-TestPurposes_fanoutPoint_basic) (TST-2016-0144R01-CR_TS-0018-Update_GMG_Test_Purposes)
V0.1.4	1 <sup>st</sup> November	Add the agreed documents from TST 25 (TST-2016-0154R01-LOC_Test_Purposes) (TST-2016-0166R03-announce_deannounce_test_purpose) (TST-2016-0173R01-DMR_Container_and_Latest_ContentInstance_Test_Purposes) (TST-2016-0177R01-TS-0018 Test purpose contribution) (TST-2016-0178-TS-0018 Test purpose contribution)
V0.1.5	6 <sup>th</sup> January 2017	Add the agreed documents from TST 25.1 & TST 26 (TST-2016-0211-TS-0018_ACP_Test_purposes_contribution) (TST-2016-0218R01-TS-0018-Test_Purpose_for_ADN_DMR) (TST-2016-0219R01-TS-0018-Test_Purpose_for_ADN2_SUB_update) (TST-2016-0231R04-TS-0018-Test_Purpose_for_ADN) (TST-2016-0232R01-TS-0018-Test_Purpose_for_IN-CSE) (TST-2016-0234R01-TS-0018-Test_Purpose_for_ADN) (TST-2016-0235R02-TS-0018-Test_Purpose_for_ADN_SUB) (TST-2016-0236R01-CR_TS-0018_Update_DMR) (TST-2016-0243R01-TS-0018_Test_purpose_contribution) (TST-2016-0245-TS-0018_Modification_of_TPs_for_Retrieve_operation_on_DMR) (TST-2016-0246-TS-0018_TPs_for_Retrieve_operation_of_resources_under_CSEBase) (TST-2016-0255R01-duplicate_test_removal)
V0.1.6	11 February 2017	Add the agreed documents from TST 26.1 and TST 26.2 TST-2016-0253R03-TS-0018-Test_Purposes_contribution_REG TST-2017-0001-CR-TS-0018_GMG_Test_Purpose_Correction TST-2017-0004R01-TS-0018-Test_purposes_harmonization TST-2017-0008-TS-0018_New_TPs_for_optional_attributes_(IN-PROFILE) TST-2017-0009R01-TS-0018_New_TPs_for_Announcement TST-2017-0010-TS-0018_Review_of_ANNC_group_test_purposes TST-2017-0011-TS-0018_Review_of_CRE_group_test_purposes TST-2017-0012-TS-0018_Review_of_RET_group_test_purposes TST-2017-0013-TS-0018_Review_of_DEL_group_test_purposes TST-2017-0014-TS-0018_Review_of_DMR_group_test_purposes TST-2017-0015R01-TS-0018_Review_of_GMG_group_test_purposes TST-2017-0016R01-TS-0018-Test_purposes_improvements
V0.1.7	17 February 2017	Add the agreed documents from TST 27 - TST-2017-0055-Removal_duplicate_test_purpose

V0.1.8	3 April 2017	<p>Incorporated agreed documents from TST 28</p> <ul style="list-style-type: none"> <li>- TST-2017-0075R01-TS-0018_New_TPs</li> <li>- TST-2017-0077R01-New TPs contribution</li> <li>- TST-2017-0080R01-TS-0018_New_TPs_for_ResultContent_attribute</li> <li>- TST-2017-0081-TS-0018_Minor_changes_to_DMR_TPs</li> <li>- TST-2017-0083-TS-0018_Test_purposes_improvements</li> <li>- TST-2017-0085R02-TP_for_CE_REG_00001.DOC</li> <li>- TST-2017-0086R03-TP_for_CE_REG_00002.DOC</li> <li>- TST-2017-0090R02-TP_for_CE_REG_00004.DOC</li> <li>- TST-2017-0106-TS-0018_Update_CSE_DMR_CRE_BV_003</li> <li>- TST-2017-0105R01-TS-0018_Update_CSE_DMR_CRE_BV_001</li> </ul>
V0.1.9	24 April 2017	<p>Incorporated agreed documents from TST#28.1</p> <ul style="list-style-type: none"> <li>- TST-2017-0108R02-Restructure_of_TS-0018</li> <li>- TST-2017-0118-TS-0018_Update_CSE_DMR_DEL_BV_002-4</li> <li>- TST-2017-0119R01-TS-0018_Update_DMR_TPs</li> </ul>