7.2.2.13.1 CREATE Operation

TP/oneM2M/CSE/FLXC/CRE/002

|  |  |
| --- | --- |
| **TP Id** | TP/oneM2M/CSE/FLXC/CRE/002 |
| **Test objective** | Check that the IUT rejects the CREATE request of <flexContainer> resource when the containerDefinition attribute does not include the schema value to validate the received resource representation |
| **Reference** | TS-0001 [1], clause 10.1.2 and 10.2.4.16, TS-0004 [2], clause 7.4.37.2.1 |
| **Config Id** | CF03 |
| **Parent Release** | Release 4 |
| **PICS Selection** | PICS\_CSE |
| **Initial conditions** | **with {** the IUT **being** in the "initial state" **and** the IUT **having registered** an AE **and** the IUT **being** a hosting CSE the AE **having** privileges to perform CREATE operation on  TARGET\_RESOURCE\_ADDRESS**}** |
| **Expected behaviour** | **Test events** | **Direction** |
| **when {** the IUT **receives** a valid CREATE Request from AE **containing** Resource Type **set to** 28 (flexContainer) To **set to** TARGET \_RESOURCE\_ADDRESS **and** From **set to** AE\_ID Content **containing** flexContainer resource **containing** containerDefinition **set to** empty**}** | IUT 🡨 AE |
| **then {** the IUT **does not create** the flexContainer resource **and** the IUT **sends** a valid Response **containing**  Response Status Code **set to** 4125 (SPECIALIZATION\_SCHEMA\_NOT\_FOUND)**}** | AE 🡨 IUT |

TP/oneM2M/CSE/FLXC/CRE/003

|  |  |
| --- | --- |
| **TP Id** | TP/oneM2M/CSE/FLXC/CRE/003 |
| **Test objective** | Check that the IUT rejects the CREATE request of <flexContainer> resource when value of contentSize attribute is greater than maxByteSize attribute |
| **Reference** | TS-0001 [1], clause 10.1.2 and 10.2.4.16, TS-0004 [2], clause 7.4.37.2.1 |
| **Config Id** | CF03 |
| **Parent Release** | Release 4 |
| **PICS Selection** | PICS\_CSE |
| **Initial conditions** | **with {** the IUT **being** in the "initial state" **and** the IUT **having registered** an AE **and** the IUT **being** a hosting CSE  the AE **having** privileges to perform CREATE operation on  TARGET\_RESOURCE\_ADDRESS**}** |
| **Expected behaviour** | **Test events** | **Direction** |
| **when {** the IUT **receives** a valid CREATE Request from AE **containing** Resource Type **set to** 28 (flexContainer) To **set to** TARGET \_RESOURCE\_ADDRESS **and** From **set to** AE\_ID **and** Content **containing** flexContainer resource **containing** maxNrOfInstances **set to** non-zero value **and** a valid maxByteSize **and** a validCUSTOM\_ATTRIBUTE with size **bigger than** maxByteSize**}** | IUT 🡨 AE |
| **then {** the IUT **does not create** the flexContainer resource **and** the IUT **sends** a valid Response **containing** Response Status Code **set to** 5207 (NOT\_ACCEPTABLE)**}** | AE 🡨 IUT |

TP/oneM2M/CSE/FLXC/CRE/004

|  |  |
| --- | --- |
| **TP Id** | TP/oneM2M/CSE/FLXC/CRE/004 |
| **Test objective** | Check that the IUT successfully creates the <flexContainer> resource and its child <flexcontainerInstance> resource when *ATTRIBUTE* attribute of <flexContainer> resource is present with a non-zero value in the request |
| **Reference** | TS-0001 [1], clause 10.1.2 and 10.2.4.16, TS-0004 [2], clause 7.4.37.2.1 |
| **Config Id** | CF03 |
| **Parent Release** | Release 4 |
| **PICS Selection** | PICS\_CSE |
| **Initial conditions** | **with {** the IUT **being** in the "initial state" **and** the IUT **having registered** an AE **and** the IUT **being** a hosting CSE  **and** the AE **having** privileges to perform CREATE operation on  TARGET\_RESOURCE\_ADDRESS**}** |
| **Expected behaviour** | **Test events** | **Direction** |
| **when {** the IUT **receives** a valid CREATE Request from AE **containing**  Resource Type **set to** 28 (flexContainer) To **set to** TARGET \_RESOURCE\_ADDRESS **and** From **set to** AE\_ID Content **containing** flexContainer resource **containing**a valid *ATTRIBUTE* attribute**}** | IUT 🡨 AE |
| **then {** the IUT **creates** the <flexContainer> resource **and** the IUT **creates** the child <flexContainerInstance> resource **and** the IUT **sends** a valid Response **containing**  Response Status Code **set to** 2001 (CREATED)**}** | AE 🡨 IUT |

|  |  |
| --- | --- |
| **TP Id** | **ATTRIBUTE** |
| TP/oneM2M/CSE/FLXC/CRE/004/MNI | maxNrOfInstances |
| TP/oneM2M/CSE/FLXC/CRE/004/MBS | maxByteSize |
| TP/oneM2M/CSE/FLXC/CRE/004/MIA | *maxInstanceAge* |

7.2.2.13.2 UPDATE Operation

TP/oneM2M/CSE/FLXC/UPD/004

|  |  |
| --- | --- |
| **TP Id** | TP/oneM2M/CSE/DMR/UPD/004 |
| **Test objective** | Check that the IUT rejects the UPDATE request of <flexContainer> resource when the size value of the customAttributeexceeds the value specified in the maxByteSize attribute |
| **Reference** | TS-0001 [1], clause 10.1.4 and 10.2.4.18, TS-0004 [2], clause 7.4.37.2.3 |
| **Config Id** | CF03 |
| **Parent Release** | Release 4 |
| **PICS Selection** | PICS\_CSE |
| **Initial conditions** | **with {**the IUT **being** in the "initial state" **and** the IUT **having registered** an AE **and** the IUT **being** a hosting CSE  **and** the IUT **having** a <flexContainer> resource at TARGET\_RESOURCE\_ADDRESS **containing**  a valid maxByteSize attribute**and** the AE **having** privileges to perform UPDATE operation on  TARGET\_RESOURCE\_ADDRESS**}** |
| **Expected behaviour** | **Test events** | **Direction** |
| **when {**the IUT **receives** a valid UPDATE Request from AE **containing**Resource Type **set to** 28 (flexContainer) To **set to** TARGET \_RESOURCE\_ADDRESS **and**From **set to** AE\_IDflexcontainer resource **containing**a valid CUSTOM\_ATTRIBUTEwith size **greater than** maxByteSize**}** | IUT 🡨 AE |
| **then {**the IUT **sends** a valid Response **containing**Response Status Code **set to** 5207 (NOT\_ACCEPTABLE) **}** | AE 🡨 IUT |

TP/oneM2M/CSE/FLXC/UPD/005

|  |  |
| --- | --- |
| **TP Id** | TP/oneM2M/CSE/FLXC/UPD/005 |
| **Test objective** | Check that IUT updates the <flexContainer> resource and creates its new child <flexContainerInstance> resource when request contains a custom attribute of the targeted <flexContainer> resource |
| **Reference** | TS-0001 [1], clause 10.1.4 and 10.2.4.18, TS-0004 [2], clause 7.4.37.2.3 |
| **Config Id** | CF03 |
| **Parent Release** | Release 4 |
| **PICS Selection** | PICS\_CSE |
| **Initial conditions** | **with {**the IUT **being** in the "initial state" **and** the IUT **having registered** an AE **and** the IUT **being** a hosting CSE  **and** the IUT **having** a <flexContainer> resource at  TARGET\_RESOURCE\_ADDRESS **containing** amaxNrOfInstances attribute **set to** non-zero value **and** a maxByteSize attribute **set to** non-zero value **and**  a maxInstanceAge attribute **set to** non-zero value**and** the AE **having** privileges to perform UPDATE operation on  TARGET\_RESOURCE\_ADDRESS**}** |
| **Expected behaviour** | **Test events** | **Direction** |
| **when {**the IUT **receives** a valid UPDATE Request from AE **containing** Resource Type **set to** 28 (flexContainer)To **set to** TARGET \_RESOURCE\_ADDRESS **and**From **set to** AE\_IDContent **containing**flexcontainer resource **containing** a valid CUSTOM\_ATTRIBUTE attribute**}** | IUT 🡨 AE |
| **then {**the IUT **updates** the <flexContainer> resource **and** the IUT **creates** the child <flexContainerInstance> resource **and** the IUT **sends** a valid Response **containing**  Response Status Code **set to** 2004 (UPDATED) **}** | AE 🡨 IUT |

TP/oneM2M/CSE/FLXC/UPD/006

|  |  |
| --- | --- |
| **TP Id** | TP/oneM2M/CSE/FLXC/UPD/006 |
| **Test objective** | Check that the IUT updates the set of <flexContainerInstance> children resources, currentNrOfInstances and currentByteSize attributes of the <flexContainer> resource when the UPDATE request creates, modifies or deletes *ATTRIBUTE* attribute of the <flexContainer> resource |
| **Reference** | TS-0001 [1], clause 10.1.4 and 10.2.4.18, TS-0004 [2], clause 7.4.37.2.3 |
| **Config Id** | CF03 |
| **Parent Release** | Release 4 |
| **PICS Selection** | PICS\_CSE |
| **Initial conditions** | **with {**the IUT **being** in the "initial state" **and** the IUT **having registered** an AE **and** the IUT **being** a hosting CSE  **and** the IUT **having** a <flexContainer> resource at  TARGET\_RESOURCE\_ADDRESS **containing**children <flexContainerInstance> resources**and** the AE **having** privileges to perform UPDATE operation on TARGET\_RESOURCE\_ADDRESS**}** |
| **Expected behaviour** | **Test events** | **Direction** |
| **when {**the IUT **receives** a valid UPDATE Request from AE **containing** Resource Type **set to** 28 (flexContainer)To **set to** TARGET \_RESOURCE\_ADDRESS **and**From **set to** AE\_ID **and**Content **containing** flexContainer resource **containing**a valid *ATTRIBUTE* attribute**}** | IUT 🡨 AE |
| **then {**the IUT **updates** the set of <flexContainerInstances> resources according to the modified <flexContainer> attributes **and** the IUT **sends** a valid Response **containing** Response Status Code **set to** 2004 (UPDATED)Content **containing**flexContainer resource **containing**currentNrOfInstances and currentByteSize attributes **indicating** modified values**}** | AE 🡨 IUT |

|  |  |
| --- | --- |
| **TP Id** | **ATTRIBUTE** |
| TP/oneM2M/CSE/FLXC/UPD/006/MNI | maxNrOfInstances |
| TP/oneM2M/CSE/FLXC/UPD/006/MBS | maxByteSize |
| TP/oneM2M/CSE/FLXC/UPD/006/MIA | *maxInstanceAge* |

TP/oneM2M/CSE/FLXC/UPD/007

|  |  |
| --- | --- |
| **TP Id** | TP/oneM2M/CSE/FLXC/UPD/007 |
| **Test objective** | Check that the IUT deletes all child <flexContainerInstance> resources and the currentNrOfInstances, currentByteSize, maxNrOfInstances, maxByteSize and maxInstanceAge attributes of the <flexContainer> when UPDATE request updates *ATTRIBUTE* of the <flexContainer> resource with a value of zero  |
| **Reference** | TS-0001 [1], clause 10.1.4 and 10.2.4.18, TS-0004 [2], clause 7.4.37.2.3 |
| **Config Id** | CF03 |
| **Parent Release** | Release 4 |
| **PICS Selection** | PICS\_CSE |
| **Initial conditions** | **with {** the IUT **being** in the "initial state" **and** the IUT **having registered** an AE **and** the IUT **being** a hosting CSE  **and** the IUT **having** a <flexContainer> resource at  TARGET\_RESOURCE\_ADDRESS **containing**children <flexContainerInstance> resources**and** the AE **having** privileges to perform UPDATE operation onTARGET\_RESOURCE\_ADDRESS**}** |
| **Expected behaviour** | **Test events** | **Direction** |
| **when {**the IUT **receives** a valid UPDATE Request from AE **containing** Resource Type **set to** 28 (flexContainer) To **set to** TARGET \_RESOURCE\_ADDRESS **and**From **set to** AE\_IDContent **containing** <flexContainer> resource **containing** *ATTRIBUTE* attribute **set to** ZERO**}** | IUT 🡨 AE |
| **then {**the IUT **deletes** all <flexContainerInstance> resources **and** the IUT **deletes** currentNrOfInstances, currentByteSize, maxNrOfInstances, maxByteSize and maxInstanceAge attributes of <flexContainer> **and** the IUT **sends** a valid Response **containing**Response Status Code **set to** 2004 (UPDATED) **}** | AE 🡨 IUT |

|  |  |
| --- | --- |
| **TP Id** | **ATTRIBUTE** |
| TP/oneM2M/CSE/FLXC/UPD/007/MNI | maxNrOfInstances |
| TP/oneM2M/CSE/FLXC/UPD/007/MBS | maxByteSize |
| TP/oneM2M/CSE/FLXC/UPD/007/MIA | *maxInstanceAge* |

7.2.2.13.3 RETRIEVE Operation

TP/oneM2M/CSE/FLXC/RET/001

|  |  |
| --- | --- |
| **TP Id** | TP/oneM2M/CSE/FLXC/RET/001 |
| **Test objective** | Check that the IUT performs the RETRIEVErequest for the latest <flexContainerInstance> resource |
| **Reference** | TS-0001 [1], clause 10.1.3, 10.2.4.17, TS-0004 [2], clause 7.4.37.2.2 |
| **Config Id** | CF01 |
| **Parent Release** | Release 1 |
| **PICS Selection** | PICS\_CSE |
| **Initial conditions** | **with {** the IUT **being** in the "initial state"  **and** the IUT **having registered** the AE **containing** **and** the IUT **having** a <flexContainer> resource at  TARGET\_RESOURCE\_ADDRESS **containing** a child <flexContainerInstance> resource **as** FLEX\_CONTAINER\_INSTANCE\_1 a child <flexContainerInstance> resource **as** FLEX\_CONTAINER\_INSTANCE\_2 **and** creationTime attribute ofFLEX\_CONTAINER\_INSTANCE\_1 < creationTime attribute of FLEX\_CONTAINER\_INSTANCE\_2 **and** the AE **having** privileges to perform RETRIEVEoperation on TARGET\_RESOURCE\_ADDRESS**}** |
| **Expected behaviour** | **Test events** | **Direction** |
| **when {** the IUT **receives** a valid RETRIEVERequest from AE **containing** Resource Type **set to** 58 (flexContainerInstance) **and** To **set to** TARGET \_RESOURCE\_ADDRESS/la **and**From **set to** AE\_ID**}** | IUT 🡨 AE |
| **then {** the IUT sends a Response **containing** Response Status Code **set to** 2000 (OK) **and** Content **containing** flexContainerInstance resource **containing** resourceName attribute **set to** FLEX\_CONTAINER\_INSTANCE\_2**}** | IUT 🡪 AE |

TP/oneM2M/CSE/FLXC/RET/002

|  |  |
| --- | --- |
| **TP Id** | TP/oneM2M/CSE/FLXC/RET/002 |
| **Test objective** | Check that the IUT performs the RETRIEVErequest for the oldest <flexContainerInstance> resource |
| **Reference** | TS-0001 [1], clause 10.1.3, 10.2.4.17, TS-0004 [2], clause 7.4.37.2.2 |
| **Config Id** | CF01 |
| **Parent Release** | Release 1 |
| **PICS Selection** | PICS\_CSE |
| **Initial conditions** | **with {** the IUT **being** in the "initial state"  **and** the IUT **having registered** the AE **containing** **and** the IUT **having** a <flexContainer> resource at  TARGET\_RESOURCE\_ADDRESS **containing** a child <flexContainerInstance> resource **as** FLEX\_CONTAINER\_INSTANCE\_1 a child <flexContainerInstance> resource **as** FLEX\_CONTAINER\_INSTANCE\_2 **and** creationTime attribute ofFLEX\_CONTAINER\_INSTANCE\_1 < creationTime attribute of FLEX\_CONTAINER\_INSTANCE\_2 **and** the AE **having** privileges to perform RETRIEVEoperation on TARGET\_RESOURCE\_ADDRESS**}** |
| **Expected behaviour** | **Test events** | **Direction** |
| **when {** the IUT **receives** a valid RETRIEVERequest from AE **containing** Resource Type **set to** 58 (flexContainerInstance) **and** To **set to** TARGET \_RESOURCE\_ADDRESS/ol **and**From **set to** AE\_ID**}** | IUT 🡨 AE |
| **then {** the IUT sends a Response **containing** Response Status Code **set to** 2000 (OK) **and** Content **containing** flexContainerInstance resource **containing** resourceName attribute **set to** FLEX\_CONTAINER\_INSTANCE\_1**}** | IUT 🡪 AE |

7.2.2.13.4 DELETE Operation

TP/oneM2M/CSE/FLXC/DEL/001

|  |  |
| --- | --- |
| **TP Id** | TP/oneM2M/CSE/FLXC/DEL/001 |
| **Test objective** | Check that the IUT performs the DELETErequest for the latest <flexContainerInstance> resource |
| **Reference** | TS-0001 [1], clause 10.1.5, 10.2.4.19, TS-0004 [2], clause 7.4.37.2.4 |
| **Config Id** | CF01 |
| **Parent Release** | Release 1 |
| **PICS Selection** | PICS\_CSE |
| **Initial conditions** | **with {** the IUT **being** in the "initial state"  **and** the IUT **having registered** the AE **containing** **and** the IUT **having** a <flexContainer> resource at  TARGET\_RESOURCE\_ADDRESS **containing** a child <flexContainerInstance> resource **as** FLEX\_CONTAINER\_INSTANCE\_1 a child <flexContainerInstance> resource **as** FLEX\_CONTAINER\_INSTANCE\_2 **and** creationTime attribute ofFLEX\_CONTAINER\_INSTANCE\_1 < creationTime attribute of FLEX\_CONTAINER\_INSTANCE\_2 **and** the AE **having** privileges to perform RETRIEVEoperation on TARGET\_RESOURCE\_ADDRESS**}** |
| **Expected behaviour** | **Test events** | **Direction** |
| **when {**the IUT **receives** a valid DELETE Request from AE **containing** Resource Type **set to** 58 (flexContainerInstance)To **set to** TARGET \_RESOURCE\_ADDRESS/la **and**From **set to** AE\_ID**}** | IUT 🡨 AE |
| **then {**the IUT **deletes** the FLEX\_CONTAINER\_INSTANCE\_2 resource **and** the IUT **sends** a valid Response **containing** Response Status Code **set to** 2002 (DELETED) **and****}** | IUT 🡪 AE |

TP/oneM2M/CSE/FLXC/DEL/002

|  |  |
| --- | --- |
| **TP Id** | TP/oneM2M/CSE/FLXC/DEL/002 |
| **Test objective** | Check that the IUT performs the DELETErequest for the oldest <flexContainerInstance> resource |
| **Reference** | TS-0001 [1], clause 10.1.5, 10.2.4.19, TS-0004 [2], clause 7.4.37.2.4 |
| **Config Id** | CF01 |
| **Parent Release** | Release 1 |
| **PICS Selection** | PICS\_CSE |
| **Initial conditions** | **with {** the IUT **being** in the "initial state"  **and** the IUT **having registered** the AE **containing** **and** the IUT **having** a <flexContainer> resource at  TARGET\_RESOURCE\_ADDRESS **containing** a child <flexContainerInstance> resource **as** FLEX\_CONTAINER\_INSTANCE\_1 a child <flexContainerInstance> resource **as** FLEX\_CONTAINER\_INSTANCE\_2 **and** creationTime attribute ofFLEX\_CONTAINER\_INSTANCE\_1 < creationTime attribute of FLEX\_CONTAINER\_INSTANCE\_2 **and** the AE **having** privileges to perform RETRIEVEoperation on TARGET\_RESOURCE\_ADDRESS**}** |
| **Expected behaviour** | **Test events** | **Direction** |
| **when {**the IUT **receives** a valid DELETE Request from AE **containing** Resource Type **set to** 58 (flexContainerInstance)To **set to** TARGET \_RESOURCE\_ADDRESS/ol **and**From **set to** AE\_ID**}** | IUT 🡨 AE |
| **then {**the IUT **deletes** the FLEX\_CONTAINER\_INSTANCE\_1 resource **and** the IUT **sends** a valid Response **containing** Response Status Code **set to** 2002 (DELETED) **and****}** | IUT 🡪 AE |

7.2.2.13.5 BASIC Operation

TP/oneM2M/CSE/FLXC/001

|  |  |
| --- | --- |
| **TP Id** | TP/oneM2M/CSE/FLXC/001 |
| **Test objective** | Check that the IUT rejects the *OPERATION* request for the latest <flexContainerInstance> resource if targeted resource does not exist |
| **Reference** | TS-0001 [1], clause 10.2.4.17, 10.2.4.19, TS-0004 [2], clause 7.4.37.2.2, 7.4.37.2.4 |
| **Config Id** | CF01 |
| **Parent Release** | Release 1 |
| **PICS Selection** | PICS\_CSE |
| **Initial conditions** | **with {** the IUT **being** in the "initial state"  **and** the IUT **having registered** the AE **and** the IUT **having** a <flexContainer> resource at TARGET\_RESOURCE\_ADDRESS **containing** no child flexContainerInstance resource **and** the AE **having** privileges to perform *OPERATION* on  TARGET\_RESOURCE\_ADDRESS**}** |
| **Expected behaviour** | **Test events** | **Direction** |
| **when {** the IUT **receives** a valid *OPERATION* Request from AE **containing** Resource Type **set to** 58 (flexContainerInstance) To **set to** TARGET \_RESOURCE\_ADDRESS/la **and**From **set to** AE\_ID **}** | IUT 🡨 AE |
| **then {** the IUT **sends** a valid Response **containing**  Response Status Code **set to** 4004 (NOT\_FOUND)**}** | IUT 🡪 AE |

|  |  |
| --- | --- |
| **TP Id** | **OPERATION** |
| TP/oneM2M/CSE/FLXC/001/RET | Retrieve |
|
| TP/oneM2M/CSE/FLXC/001/DEL | Delete |

TP/oneM2M/CSE/FLXC/002

|  |  |
| --- | --- |
| **TP Id** | TP/oneM2M/CSE/FLXC/002 |
| **Test objective** | Check that the IUT rejects the *OPERATION* request for the oldest <flexContainerInstance> resource if targeted resource does not exist |
| **Reference** | TS-0001 [1], clause 10.2.4.17, 10.2.4.19, TS-0004 [2], clause 7.4.37.2.2, 7.4.37.2.4 |
| **Config Id** | CF01 |
| **Parent Release** | Release 1 |
| **PICS Selection** | PICS\_CSE |
| **Initial conditions** | **with {**the IUT **being** in the "initial state"  **and** the IUT **having registered** the AE **and** the IUT **having** a <flexContainer> resource at TARGET\_RESOURCE\_ADDRESS  **and** the AE **having** privileges to perform operation onTARGET\_RESOURCE\_ADDRESS**}** |
| **Expected behaviour** | **Test events** | **Direction** |
| **when {**the IUT **receives** a valid *OPERATION* Request from AE **containing**Resource Type **set to** 58 (flexContainerInstance)To **set to** TARGET \_RESOURCE\_ADDRESS/ol **and**From **set to** AE\_ID**}** | IUT 🡨 AE |
| **then {** the IUT **sends** a valid Response **containing**  Response Status Code **set to** 4004 (NOT\_FOUND)**}** | IUT 🡪 AE |

|  |  |
| --- | --- |
| **TP Id** | **OPERATION** |
| TP/oneM2M/CSE/FLXC/002/RET | Retrieve |
|
| TP/oneM2M/CSE/FLXC/002/DEL | Delete |