CLOUD;
Test Descriptions for Cloud Interoperability
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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee CLOUD (CLOUD).
1 Scope

The present document specifies Interoperability Test Descriptions (TDs) for OCCI and CDMI standards. The Test Descriptions cover the OCCI and CDMI protocol specifications where relevant and more specifically:

1) OCCI interoperability testing, to prove that end-to-end functionality is as required by the standard.
2) CDMI interoperability testing, to prove that end-to-end functionality is as required by the standard.
3) OCCI + CDMI interworking testing, to prove that end-to-end functionality is as required by the standards.

2 References

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

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

2.1 Normative references

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

[1] OGF GFD.183: "Open Cloud Computing Interface - Core".

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] IETF RFC 2046: "Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types".
[i.2] IETF RFC 2616: "Hypertext Transfer Protocol -- HTTP/1.1".

3 Abbreviations

For the purposes of the present document, the abbreviations given in GFD.183 [1], GFD.184 [2], GFD.185 [3], ISO/IEC 17826 [4] and the following apply:

SUT System Under Test
4 Conventions

4.1 Interoperability test process

4.1.1 Introduction

The goal of interoperability testing is to check that services implemented according to protocol specifications are able to interwork and to provide at least the mandatory features specified in the protocol specification. In addition, optional features may be checked when all services involved in a test support them.

Detailed protocol conformance checks may be performed during the interoperability test sessions but are not the focus of the interoperability test event.

The test session will be mainly executed between two systems from different vendors. For some test descriptions, it may be necessary to have more than two systems involved. The information about the test configuration like the number of systems or the roles required are indicated in the test description tables 2 to 10.

4.1.2 Test description proforma

The test descriptions are provided in proforma tables. The test description header specifies a unique test identifier, the test objective, the test configuration to be used and references to the protocol specification(s). The pre-condition row defines conditions that need to apply before starting the test.

The following different types of test operator actions are considered during the test execution:

- A **stimulus** corresponds to an event that enforces an SUT to proceed with a specific protocol action, like sending a message.

- A **verify** consists of verifying that the SUT behaves according to the expected behaviour (for instance the SUT behaviour shows that it receives the expected message).

- A **configure** corresponds to an action to modify the SUT configuration.

- A **check** ensures the receipt of protocol messages on reference points, with valid content. This "check" event type corresponds to the interoperability testing with conformance check method.

For the execution of the interoperability test sessions, the following conventions apply:

- Every 'Check' step of a test description should be performed by verifying a trace created with a monitoring tool (see clause 'Tooling' below) and may be skipped due to time restrictions.

4.2 Tooling

- Participant will use their own tools (e.g. tcpdump, wireshark, ngrep) for logging and analyzing messages for the "check" purposes.

- Participants will be given the opportunity to upload their log files to a central server for later offline conformance review.

- Except for the "check" events, the verification of the message conformity is not part of the Interoperability test process.
4.3 Test Description naming convention

<table>
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<th>TD/&lt;root&gt;/&lt;gr1&gt;/&lt;gr2&gt;/&lt;nnn&gt;</th>
<th>Description</th>
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</thead>
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<tr>
<td>&lt;root&gt; = root</td>
<td>OCCI, CDMI, INTER</td>
</tr>
<tr>
<td>&lt;gr1&gt; = outer group</td>
<td>CORE, INFRA, DATA, CONTAINER, DOMAIN, QUEUE, CAPABILITIES, OCCI+CDMI</td>
</tr>
<tr>
<td>&lt;gr2&gt; = inner group</td>
<td>DISCOVERY, CREATE, READ, UPDATE, DELETE, MISC</td>
</tr>
<tr>
<td>&lt;nnn&gt; = sequential number</td>
<td>001 to 999</td>
</tr>
</tbody>
</table>

4.4 Test Summary - Mandatory Tests

4.4.1 OCCI Mandatory Tests

| TD/OCCI/CORE/DISCOVERY/001 | Retrieving all OCCI Categories supported by the OCCI Server |

4.4.2 CDMI Mandatory Tests

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<th>Retrieve root CDMI Capability Object</th>
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<td>TD/CDMI/CAPABILITIES/READ/002</td>
<td>List children of the root CDMI Capability Object</td>
</tr>
<tr>
<td>TD/CDMI/CAPABILITIES/READ/003</td>
<td>Read capabilities field from existing CDMI Capability Object</td>
</tr>
<tr>
<td>TD/CDMI/CAPABILITIES/READ/004</td>
<td>Retrieve the Capabilities of a CDMI object</td>
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4.5 Test Summary - Optional Tests

4.5.1 OCCI Optional Tests

Table 4: OCCI Core Optional Tests

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<td>2 TD/OCCI/CORE/CREATE/001</td>
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<td>4 TD/OCCI/CORE/CREATE/003</td>
<td>Create an OCCI Resource with an OCCI Link to an existing OCCI Resource</td>
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<tr>
<td>5 TD/OCCI/CORE/CREATE/004</td>
<td>Create an OCCI Link</td>
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<td>Create an OCCI Link with an OCCI Mixin</td>
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<td>Add an OCCI Mixin definition</td>
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<tr>
<td>8 TD/OCCI/CORE/READ/001</td>
<td>Retrieve the URLs of all OCCI Entities belonging to an OCCI Kind or OCCI Mixin</td>
</tr>
<tr>
<td>9 TD/OCCI/CORE/READ/002</td>
<td>Retrieve the URLs of the OCCI Entities belonging to an OCCI Kind or OCCI Mixin and related to an OCCI Category filter</td>
</tr>
<tr>
<td>10 TD/OCCI/CORE/READ/003</td>
<td>Retrieve the URLs of the OCCI Entities belonging to an OCCI Kind or OCCI Mixin which contain a specific Attribute</td>
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<td>11 TD/OCCI/CORE/READ/004</td>
<td>Retrieve the descriptions of all OCCI Entities belonging to an OCCI Kind or OCCI Mixin</td>
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<td>12 TD/OCCI/CORE/READ/005</td>
<td>Retrieve the descriptions of the OCCI Entities belonging to an OCCI Kind or OCCI Mixin and related to an OCCI Category filter</td>
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<td>Full update of a specific OCCI Entity</td>
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<td>16 TD/OCCI/CORE/UPDATE/003</td>
<td>Full update of a specific OCCI Mixin Collection</td>
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<tr>
<td>21 TD/OCCI/CORE/MISC/002</td>
<td>Trigger OCCI Action on all OCCI Entities belonging to an OCCI Kind or OCCI Mixin</td>
</tr>
<tr>
<td>22 TD/OCCI/CORE/MISC/003</td>
<td>Associate OCCI Entities with OCCI Mixin</td>
</tr>
<tr>
<td>23 TD/OCCI/CORE/MISC/004</td>
<td>Disassociate OCCI Entities from OCCI Mixin</td>
</tr>
</tbody>
</table>

Table 5: OCCI Infrastructure Optional Tests

<table>
<thead>
<tr>
<th>Test Case</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 TD/OCCI/INFRA/CREATE/001</td>
<td>Create an OCCI Compute Resource</td>
</tr>
<tr>
<td>2 TD/OCCI/INFRA/CREATE/002</td>
<td>Create an OCCI Storage Resource</td>
</tr>
<tr>
<td>3 TD/OCCI/INFRA/CREATE/003</td>
<td>Create an OCCI Network Resource</td>
</tr>
<tr>
<td>4 TD/OCCI/INFRA/CREATE/004</td>
<td>Create an OCCI Compute Resource using an OS and resource template</td>
</tr>
<tr>
<td>5 TD/OCCI/INFRA/CREATE/005</td>
<td>Create an OCCI Compute Resource with an OCCI Storagelink and an OCCI Networkinterface</td>
</tr>
<tr>
<td>6 TD/OCCI/INFRA/CREATE/006</td>
<td>Create an OCCI Storagelink between an existing OCCI Compute and OCCI Storage Resource</td>
</tr>
<tr>
<td>7 TD/OCCI/INFRA/CREATE/007</td>
<td>Create an OCCI Networkinterface between an existing OCCI Compute and OCCI Network Resource</td>
</tr>
</tbody>
</table>
### 4.5.2 CDMI Optional Tests

#### Table 6: CDMI Data Object Optional Tests

<table>
<thead>
<tr>
<th>Test Case</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TD/CDMI/DATA/CREATE/001</td>
</tr>
<tr>
<td>2</td>
<td>TD/CDMI/DATA/CREATE/002</td>
</tr>
<tr>
<td>3</td>
<td>TD/CDMI/DATA/CREATE/003</td>
</tr>
<tr>
<td>4</td>
<td>TD/CDMI/DATA/CREATE/004</td>
</tr>
<tr>
<td>5</td>
<td>TD/CDMI/DATA/CREATE/005</td>
</tr>
<tr>
<td>6</td>
<td>TD/CDMI/DATA/CREATE/006</td>
</tr>
<tr>
<td>7</td>
<td>TD/CDMI/DATA/READ/001</td>
</tr>
<tr>
<td>8</td>
<td>TD/CDMI/DATA/READ/002</td>
</tr>
<tr>
<td>9</td>
<td>TD/CDMI/DATA/READ/003</td>
</tr>
<tr>
<td>10</td>
<td>TD/CDMI/DATA/READ/004</td>
</tr>
<tr>
<td>11</td>
<td>TD/CDMI/DATA/UPDATE/001</td>
</tr>
<tr>
<td>12</td>
<td>TD/CDMI/DATA/UPDATE/002</td>
</tr>
<tr>
<td>13</td>
<td>TD/CDMI/DATA/UPDATE/003</td>
</tr>
<tr>
<td>14</td>
<td>TD/CDMI/DATA/UPDATE/004</td>
</tr>
<tr>
<td>15</td>
<td>TD/CDMI/DATA/DELETE/001</td>
</tr>
</tbody>
</table>

#### Table 7: CDMI Container Optional Tests

<table>
<thead>
<tr>
<th>Test Case</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TD/CDMI/CONTAINER/CREATE/001</td>
</tr>
<tr>
<td>2</td>
<td>TD/CDMI/CONTAINER/CREATE/002</td>
</tr>
<tr>
<td>3</td>
<td>TD/CDMI/CONTAINER/CREATE/003</td>
</tr>
<tr>
<td>4</td>
<td>TD/CDMI/CONTAINER/CREATE/004</td>
</tr>
<tr>
<td>5</td>
<td>TD/CDMI/CONTAINER/CREATE/005</td>
</tr>
<tr>
<td>6</td>
<td>TD/CDMI/CONTAINER/READ/001</td>
</tr>
<tr>
<td>7</td>
<td>TD/CDMI/CONTAINER/READ/002</td>
</tr>
<tr>
<td>8</td>
<td>TD/CDMI/CONTAINER/READ/003</td>
</tr>
<tr>
<td>9</td>
<td>TD/CDMI/CONTAINER/READ/004</td>
</tr>
<tr>
<td>10</td>
<td>TD/CDMI/CONTAINER/UPDATE/001</td>
</tr>
<tr>
<td>11</td>
<td>TD/CDMI/CONTAINER/UPDATE/002</td>
</tr>
<tr>
<td>12</td>
<td>TD/CDMI/CONTAINER/UPDATE/003</td>
</tr>
<tr>
<td>13</td>
<td>TD/CDMI/CONTAINER/UPDATE/004</td>
</tr>
<tr>
<td>14</td>
<td>TD/CDMI/CONTAINER/DELETE/001</td>
</tr>
</tbody>
</table>

#### Table 8: CDMI Domain Optional Tests

<table>
<thead>
<tr>
<th>Test Case</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TD/CDMI/DOMAIN/CREATE/001</td>
</tr>
<tr>
<td>2</td>
<td>TD/CDMI/DOMAIN/CREATE/002</td>
</tr>
<tr>
<td>3</td>
<td>TD/CDMI/DOMAIN/CREATE/003</td>
</tr>
<tr>
<td>4</td>
<td>TD/CDMI/DOMAIN/READ/001</td>
</tr>
<tr>
<td>5</td>
<td>TD/CDMI/DOMAIN/READ/002</td>
</tr>
<tr>
<td>6</td>
<td>TD/CDMI/DOMAIN/READ/003</td>
</tr>
<tr>
<td>7</td>
<td>TD/CDMI/DOMAIN/UPDATE/001</td>
</tr>
<tr>
<td>8</td>
<td>TD/CDMI/DOMAIN/UPDATE/002</td>
</tr>
<tr>
<td>9</td>
<td>TD/CDMI/DOMAIN/DELETE/001</td>
</tr>
</tbody>
</table>
Table 9: CDMI Queue Optional Tests

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Test ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a new CDMI Queue</td>
<td>TD/CDMI/QUEUE/CREATE/001</td>
</tr>
<tr>
<td>Create a reference to an existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/CREATE/002</td>
</tr>
<tr>
<td>Copy an existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/CREATE/003</td>
</tr>
<tr>
<td>Move an existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/CREATE/004</td>
</tr>
<tr>
<td>Create a new CDMI Queue by deserializing an existing CDMI Data Object</td>
<td>TD/CDMI/QUEUE/CREATE/005</td>
</tr>
<tr>
<td>Read all fields from existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/READ/001</td>
</tr>
<tr>
<td>Read metadata from existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/READ/002</td>
</tr>
<tr>
<td>Read value of oldest enqueued object of existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/READ/003</td>
</tr>
<tr>
<td>Read first 10 bytes of oldest enqueued object value of existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/READ/004</td>
</tr>
<tr>
<td>Read queue values from existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/READ/005</td>
</tr>
<tr>
<td>Modify an existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/UPDATE/001</td>
</tr>
<tr>
<td>Modify the metadata of an existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/UPDATE/002</td>
</tr>
<tr>
<td>Delete an existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/DELETE/001</td>
</tr>
<tr>
<td>Enqueue a data value to an existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/ENQUEUE/001</td>
</tr>
<tr>
<td>Copy an existing CDMI Data Object or CDMI Queue to an existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/ENQUEUE/002</td>
</tr>
<tr>
<td>Move an existing CDMI Data Object or CDMI Queue to an existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/ENQUEUE/003</td>
</tr>
<tr>
<td>Dequeue oldest data value from an existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/DEQUEUE/001</td>
</tr>
<tr>
<td>Dequeue the two oldest values from existing CDMI Queue</td>
<td>TD/CDMI/QUEUE/DEQUEUE/002</td>
</tr>
</tbody>
</table>

4.5.3 Interworking Optional Tests

Table 10: OCCI+CDMI Optional Tests

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Test ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create an OCCI Storagelink between an existing OCCI Compute Resource and existing CDMI Container</td>
<td>TD/INTER/OCCI+CDMI/CREATE/001</td>
</tr>
<tr>
<td>Create an OCCI Compute Resource with an OCCI Storagelink to an existing CDMI Container</td>
<td>TD/INTER/OCCI+CDMI/CREATE/002</td>
</tr>
<tr>
<td>Create a CDMI Container and connect it to an existing OCCI Compute Resource using an OCCI Storagelink</td>
<td>TD/INTER/OCCI+CDMI/CREATE/003</td>
</tr>
<tr>
<td>Retrieve the description of an OCCI Compute Resource with an OCCI Storagelink to a CDMI Container</td>
<td>TD/INTER/OCCI+CDMI/READ/001</td>
</tr>
<tr>
<td>Read OCCI export protocol field from existing CDMI Container</td>
<td>TD/INTER/OCCI+CDMI/READ/002</td>
</tr>
<tr>
<td>Add permission for an existing OCCI Compute Resource to access an existing CDMI Container</td>
<td>TD/INTER/OCCI+CDMI/UPDATE/001</td>
</tr>
<tr>
<td>Remove permission for an existing OCCI Compute Resource to access an existing CDMI Container</td>
<td>TD/INTER/OCCI+CDMI/UPDATE/002</td>
</tr>
<tr>
<td>Delete an OCCI Compute Resource with an OCCI Storagelink to a CDMI Container</td>
<td>TD/INTER/OCCI+CDMI/DELETE/001</td>
</tr>
<tr>
<td>Delete an existing CDMI Container with access permission for an OCCI Compute Resource</td>
<td>TD/INTER/OCCI+CDMI/DELETE/002</td>
</tr>
<tr>
<td>Delete the OCCI Storagelink between an OCCI Compute Resource and a CDMI Container</td>
<td>TD/INTER/OCCI+CDMI/DELETE/003</td>
</tr>
</tbody>
</table>

5 Test Configurations

This section defines roles and the different test configurations.

5.1 Roles

Equipment under test can take one of the following roles:

- OCCI Server
- OCCI Client
5.2 Test Configuration 1 (OCCI_CFG_01)

Figure 1: Basic Face 2 Face OCCI Configuration

5.3 Test Configuration 2 (CDMI_CFG_01)

Figure 2: Basic Face 2 Face CDMI Configuration

5.4 Test Configuration 3 (OCCI_CDMI_CFG_01)

Figure 3: OCCI+CDMI Configuration
6 Feature List

In order to ease test setup and execution, participants are requested to fill in the following feature tables. Information in the tables will be used for selection/de-selection of tests related to optional features. It is highly recommended that bold features are supported to enable a minimum set of interoperability among implementations.

6.1 OCCI Server

Table 11: OCCI Core features supported by OCCI Server

<table>
<thead>
<tr>
<th>Feature</th>
<th>Support [Yes/No]</th>
<th>Dependent test descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create an OCCI Resource</td>
<td>TD/OCCI/CORE/CREATE/002</td>
<td></td>
</tr>
<tr>
<td>Create an OCCI Link</td>
<td>TD/OCCI/CORE/CREATE/004</td>
<td></td>
</tr>
<tr>
<td>Retrieval of OCCI Entity URLs</td>
<td>TD/OCCI/CORE/READ/001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/CORE/READ/002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/CORE/READ/003</td>
<td></td>
</tr>
<tr>
<td>Deletion of OCCI Entities</td>
<td>TD/OCCI/CORE/DELETE/001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/CORE/DELETE/002</td>
<td></td>
</tr>
<tr>
<td>OCCI Category filter</td>
<td>TD/OCCI/CORE/DISCOVERY/002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/CORE/READ/005</td>
<td></td>
</tr>
<tr>
<td>OCCI Attribute filter</td>
<td>TD/OCCI/CORE/READ/003</td>
<td></td>
</tr>
<tr>
<td>Create an OCCI Entity with an OCCI Mixin</td>
<td>TD/OCCI/CORE/CREATE/002</td>
<td></td>
</tr>
<tr>
<td>Create an OCCI Resource with an OCCI Link</td>
<td>TD/OCCI/CORE/CREATE/003</td>
<td></td>
</tr>
<tr>
<td>Create an OCCI Link with an OCCI Mixin</td>
<td>TD/OCCI/CORE/CREATE/005</td>
<td></td>
</tr>
<tr>
<td>Support for user-defined OCCI Mixins</td>
<td>TD/OCCI/CORE/CREATE/006</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/CORE/DELETE/003</td>
<td></td>
</tr>
<tr>
<td>Retrieval of multiple OCCI Entity descriptions</td>
<td>TD/OCCI/CORE/READ/004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/CORE/READ/005</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/CORE/READ/006</td>
<td></td>
</tr>
<tr>
<td>Full update of OCCI Entity</td>
<td>TD/OCCI/CORE/UPDATE/001</td>
<td></td>
</tr>
<tr>
<td>Partial update of OCCI Entity</td>
<td>TD/OCCI/CORE/UPDATE/002</td>
<td></td>
</tr>
<tr>
<td>Managing OCCI Mixin Collections</td>
<td>TD/OCCI/CORE/MISC/003</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/CORE/MISC/004</td>
<td></td>
</tr>
<tr>
<td>Triggering Actions</td>
<td>TD/OCCI/CORE/MISC/001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/CORE/MISC/002</td>
<td></td>
</tr>
</tbody>
</table>

Table 12: OCCI Infrastructure features supported by OCCI Server

<table>
<thead>
<tr>
<th>Feature</th>
<th>Support [Yes/No]</th>
<th>Dependent test descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create an OCCI Compute Resource</td>
<td>TD/OCCI/INFRA/CREATE/001</td>
<td></td>
</tr>
<tr>
<td>Create an OCCI Storage Resource</td>
<td>TD/OCCI/INFRA/CREATE/002</td>
<td></td>
</tr>
<tr>
<td>Create an OCCI Network Resource</td>
<td>TD/OCCI/INFRA/CREATE/003</td>
<td></td>
</tr>
<tr>
<td>Create an OCCI Compute Resource using an OS and resource template</td>
<td>TD/OCCI/INFRA/CREATE/004</td>
<td></td>
</tr>
<tr>
<td>Support for OCCI Storagelink</td>
<td>TD/OCCI/INFRA/CREATE/005</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/INFRA/CREATE/006</td>
<td></td>
</tr>
<tr>
<td>Support for OCCI Networkinterface</td>
<td>TD/OCCI/INFRA/CREATE/005</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/INFRA/CREATE/007</td>
<td></td>
</tr>
<tr>
<td>Support for OCCI Storagelink to CDMI Container</td>
<td>TD/INTER/OCCI+CDMI/CREATE/001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/INTER/OCCI+CDMI/CREATE/002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/INTER/OCCI+CDMI/CREATE/003</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/INTER/OCCI+CDMI/READ/001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/INTER/OCCI+CDMI/DELETE/001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/INTER/OCCI+CDMI/DELETE/002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD/INTER/OCCI+CDMI/DELETE/003</td>
<td></td>
</tr>
</tbody>
</table>
### 6.2 OCCI Client

#### Table 13: OCCI Core features supported by OCCI Client

<table>
<thead>
<tr>
<th>Feature</th>
<th>Support [Yes/No]</th>
<th>Dependent test descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create an OCCI Resource</td>
<td></td>
<td>TD/OCCI/CORE/CREATE/002</td>
</tr>
<tr>
<td>Create an OCCI Link</td>
<td></td>
<td>TD/OCCI/CORE/CREATE/004</td>
</tr>
<tr>
<td>Retrieval of OCCI Entity URLs</td>
<td>TD/OCCI/CORE/READ/001</td>
<td>TD/OCCI/CORE/DELETE/001</td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/CORE/READ/002</td>
<td>TD/OCCI/CORE/DELETE/002</td>
</tr>
<tr>
<td>Deletion of OCCI Entities</td>
<td>TD/OCCI/CORE/DELETE/001</td>
<td>TD/OCCI/CORE/DELETE/002</td>
</tr>
<tr>
<td>OCCI Category filter</td>
<td>TD/OCCI/CORE/DISCOVERY/002</td>
<td>TD/OCCI/CORE/READ/003</td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/CORE/READ/005</td>
<td>TD/OCCI/CORE/READ/006</td>
</tr>
<tr>
<td>OCCI Attribute filter</td>
<td></td>
<td>TD/OCCI/CORE/READ/003</td>
</tr>
<tr>
<td></td>
<td>TD/OCCI/CORE/READ/006</td>
<td>TD/OCCI/CORE/READ/006</td>
</tr>
<tr>
<td>Create an OCCI Entity with an OCCI Mixin</td>
<td>TD/OCCI/CORE/CREATE/002</td>
<td>TD/OCCI/CORE/CREATE/003</td>
</tr>
<tr>
<td>Create an OCCI Resource with an OCCI Link</td>
<td>TD/OCCI/CORE/CREATE/005</td>
<td>TD/OCCI/CORE/CREATE/005</td>
</tr>
<tr>
<td>Create an OCCI Link with an OCCI Mixin</td>
<td></td>
<td>TD/OCCI/CORE/CREATE/006</td>
</tr>
<tr>
<td>Support for user-defined OCCI Mixins</td>
<td></td>
<td>TD/OCCI/CORE/DELETE/003</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TD/OCCI/CORE/DELETE/003</td>
</tr>
<tr>
<td>Retrieval of multiple OCCI Entity descriptions</td>
<td></td>
<td>TD/OCCI/CORE/READ/004</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TD/OCCI/CORE/READ/005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TD/OCCI/CORE/READ/006</td>
</tr>
<tr>
<td>Full update of OCCI Entity</td>
<td>TD/OCCI/CORE/UPDATE/001</td>
<td>TD/OCCI/CORE/UPDATE/002</td>
</tr>
<tr>
<td>Partial update of OCCI Entity</td>
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<td>TD/OCCI/CORE/UPDATE/003</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TD/OCCI/CORE/MISC/003</td>
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<tr>
<td></td>
<td></td>
<td>TD/OCCI/CORE/MISC/004</td>
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<tr>
<td>Triggering Actions</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>TD/OCCI/CORE/MISC/002</td>
</tr>
</tbody>
</table>

#### Table 14: OCCI Infrastructure features supported by OCCI Client

<table>
<thead>
<tr>
<th>Feature</th>
<th>Support [Yes/No]</th>
<th>Dependent test descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create an OCCI Compute Resource</td>
<td></td>
<td>TD/OCCI/INFRA/CREATE/001</td>
</tr>
<tr>
<td>Create an OCCI Storage Resource</td>
<td></td>
<td>TD/OCCI/INFRA/CREATE/002</td>
</tr>
<tr>
<td>Create an OCCI Network Resource</td>
<td></td>
<td>TD/OCCI/INFRA/CREATE/003</td>
</tr>
<tr>
<td>Create an OCCI Compute Resource using an OS and resource template</td>
<td></td>
<td>TD/OCCI/INFRA/CREATE/004</td>
</tr>
<tr>
<td>Support for OCCI Storagelink</td>
<td></td>
<td>TD/OCCI/INFRA/CREATE/005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TD/OCCI/INFRA/CREATE/006</td>
</tr>
<tr>
<td>Support for OCCI Networkinterface</td>
<td></td>
<td>TD/OCCI/INFRA/CREATE/007</td>
</tr>
<tr>
<td>Support for OCCI Storagelink to CDMI Container</td>
<td></td>
<td>TD/INTER/OCCI+CDMI/CREATE/001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TD/INTER/OCCI+CDMI/CREATE/002</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TD/INTER/OCCI+CDMI/CREATE/003</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TD/INTER/OCCI+CDMI/READ/001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TD/INTER/OCCI+CDMI/DELETE/001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TD/INTER/OCCI+CDMI/DELETE/002</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TD/INTER/OCCI+CDMI/DELETE/003</td>
</tr>
</tbody>
</table>
6.3 CDMI Server

Table 15: CDMI Data Object features supported by CDMI Server

<table>
<thead>
<tr>
<th>Feature</th>
<th>Support [Yes/No]</th>
<th>Dependent test descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a CDMI Data Object</td>
<td>TD/CDMI/DATA/CREATE/001</td>
<td></td>
</tr>
<tr>
<td>Create a reference to a CDMI Data Object</td>
<td>TD/CDMI/DATA/CREATE/002</td>
<td></td>
</tr>
<tr>
<td>Copy a CDMI Data Object</td>
<td>TD/CDMI/DATA/CREATE/003</td>
<td></td>
</tr>
<tr>
<td>Move a CDMI Data Object</td>
<td>TD/CDMI/DATA/CREATE/004</td>
<td></td>
</tr>
<tr>
<td>Deserialize a CDMI Data Object</td>
<td>TD/CDMI/DATA/CREATE/005</td>
<td></td>
</tr>
<tr>
<td>Serialize a CDMI Data Object into a CDMI Data Object</td>
<td>TD/CDMI/DATA/CREATE/006</td>
<td></td>
</tr>
<tr>
<td>Serialize a CDMI Container</td>
<td>TD/CDMI/DATA/CREATE/006</td>
<td></td>
</tr>
<tr>
<td>Serialize a CDMI Domain</td>
<td>TD/CDMI/DATA/CREATE/006</td>
<td></td>
</tr>
<tr>
<td>Serialize a CDMI Queue</td>
<td>TD/CDMI/DATA/CREATE/006</td>
<td></td>
</tr>
<tr>
<td>Retrieve a CDMI Data Object</td>
<td>TD/CDMI/DATA/READ/001</td>
<td></td>
</tr>
<tr>
<td>Read the metadata of a CDMI Data Object</td>
<td>TD/CDMI/DATA/READ/002</td>
<td></td>
</tr>
<tr>
<td>Read the value of a CDMI Data Object</td>
<td>TD/CDMI/DATA/READ/003</td>
<td></td>
</tr>
<tr>
<td>Read specific byte range from the value of a CDMI Data Object</td>
<td>TD/CDMI/DATA/READ/004</td>
<td></td>
</tr>
<tr>
<td>Modify a CDMI Data Object</td>
<td>TD/CDMI/DATA/UPDATE/001</td>
<td></td>
</tr>
<tr>
<td>Modify the metadata of a CDMI Data Object</td>
<td>TD/CDMI/DATA/UPDATE/002</td>
<td></td>
</tr>
<tr>
<td>Modify the value of a CDMI Data Object</td>
<td>TD/CDMI/DATA/UPDATE/003</td>
<td></td>
</tr>
<tr>
<td>Modify specific byte range from the value of a CDMI Data Object</td>
<td>TD/CDMI/DATA/UPDATE/004</td>
<td></td>
</tr>
<tr>
<td>Delete a CDMI Data Object</td>
<td>TD/CDMI/DATA/DELETE/001</td>
<td></td>
</tr>
</tbody>
</table>

Table 16: CDMI Container features supported by CDMI Server

<table>
<thead>
<tr>
<th>Feature</th>
<th>Support [Yes/No]</th>
<th>Dependent test descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a CDMI Container</td>
<td>TD/CDMI/CONTAINER/CREATE/001</td>
<td></td>
</tr>
<tr>
<td>Create a reference to a CDMI Container</td>
<td>TD/CDMI/CONTAINER/CREATE/002</td>
<td></td>
</tr>
<tr>
<td>Copy a CDMI Container</td>
<td>TD/CDMI/CONTAINER/CREATE/003</td>
<td></td>
</tr>
<tr>
<td>Move a CDMI Container</td>
<td>TD/CDMI/CONTAINER/CREATE/004</td>
<td></td>
</tr>
<tr>
<td>Deserialize a CDMI Container</td>
<td>TD/CDMI/CONTAINER/CREATE/005</td>
<td></td>
</tr>
<tr>
<td>Retrieve a CDMI Container</td>
<td>TD/CDMI/CONTAINER/READ/001</td>
<td></td>
</tr>
<tr>
<td>Read the metadata of a CDMI Container</td>
<td>TD/CDMI/CONTAINER/READ/002</td>
<td></td>
</tr>
<tr>
<td>List children of a CDMI Container</td>
<td>TD/CDMI/CONTAINER/READ/003</td>
<td></td>
</tr>
<tr>
<td>List range of children of a CDMI Container</td>
<td>TD/CDMI/CONTAINER/READ/004</td>
<td></td>
</tr>
<tr>
<td>Modify a CDMI Container</td>
<td>TD/CDMI/CONTAINER/UPDATE/001</td>
<td></td>
</tr>
<tr>
<td>Modify the metadata of a CDMI Container</td>
<td>TD/CDMI/CONTAINER/UPDATE/002</td>
<td></td>
</tr>
<tr>
<td>Snapshot support for CDMI Container</td>
<td>TD/CDMI/CONTAINER/UPDATE/003</td>
<td></td>
</tr>
<tr>
<td>Support for NFS export</td>
<td>TD/CDMI/CONTAINER/UPDATE/004</td>
<td></td>
</tr>
<tr>
<td>Support for CIFS export</td>
<td>TD/CDMI/CONTAINER/UPDATE/004</td>
<td></td>
</tr>
<tr>
<td>Support for OCCI export</td>
<td>TD/CDMI/CONTAINER/UPDATE/004</td>
<td></td>
</tr>
<tr>
<td>Support for iSCSI export</td>
<td>TD/CDMI/CONTAINER/UPDATE/004</td>
<td></td>
</tr>
<tr>
<td>Support for WebDav export</td>
<td>TD/CDMI/CONTAINER/UPDATE/004</td>
<td></td>
</tr>
<tr>
<td>Delete a CDMI Container</td>
<td>TD/CDMI/CONTAINER/DELETE/001</td>
<td></td>
</tr>
</tbody>
</table>
### Table 17: CDMI Domain features supported by CDMI Server

<table>
<thead>
<tr>
<th>Feature</th>
<th>Support</th>
<th>Dependent test descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a CDMI Domain</td>
<td>[Yes]</td>
<td>TD/CDMI/DOMAIN/CREATE/001</td>
</tr>
<tr>
<td>Copy a CDMI Domain</td>
<td>[No]</td>
<td>TD/CDMI/DOMAIN/CREATE/002</td>
</tr>
<tr>
<td>Deserialize a CDMI Domain</td>
<td>[Yes]</td>
<td>TD/CDMI/DOMAIN/CREATE/003</td>
</tr>
<tr>
<td>Retrieve a CDMI Domain</td>
<td>[No]</td>
<td>TD/CDMI/DOMAIN/READ/001</td>
</tr>
<tr>
<td>Read the metadata of a CDMI Domain</td>
<td>[No]</td>
<td>TD/CDMI/DOMAIN/READ/002</td>
</tr>
<tr>
<td>List children of a CDMI Object</td>
<td>[No]</td>
<td>TD/CDMI/DOMAIN/READ/003</td>
</tr>
<tr>
<td>Modify a CDMI Domain</td>
<td>[Yes]</td>
<td>TD/CDMI/DOMAIN/UPDATE/001</td>
</tr>
<tr>
<td>Modify the metadata of a CDMI Domain</td>
<td>[No]</td>
<td>TD/CDMI/DOMAIN/UPDATE/002</td>
</tr>
<tr>
<td>Delete a CDMI Domain</td>
<td>[No]</td>
<td>TD/CDMI/DOMAIN/DELETE/001</td>
</tr>
</tbody>
</table>

### Table 18: Features supported by CDMI Server

<table>
<thead>
<tr>
<th>Feature</th>
<th>Support</th>
<th>Dependent test descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a CDMI Queue</td>
<td>[Yes]</td>
<td>TD/CDMI/QUEUE/CREATE/001</td>
</tr>
<tr>
<td>Create a reference to a CDMI Queue</td>
<td>[No]</td>
<td>TD/CDMI/QUEUE/CREATE/002</td>
</tr>
<tr>
<td>Copy a CDMI Queue</td>
<td>[Yes]</td>
<td>TD/CDMI/QUEUE/CREATE/003</td>
</tr>
<tr>
<td>Move a CDMI Queue</td>
<td>[Yes]</td>
<td>TD/CDMI/QUEUE/CREATE/004</td>
</tr>
<tr>
<td>Deserialize a CDMI Queue</td>
<td>[Yes]</td>
<td>TD/CDMI/QUEUE/CREATE/005</td>
</tr>
<tr>
<td>Retrieve a CDMI Queue</td>
<td>[Yes]</td>
<td>TD/CDMI/QUEUE/READ/001</td>
</tr>
<tr>
<td>Read a value from a CDMI Queue</td>
<td>[Yes]</td>
<td>TD/CDMI/QUEUE/READ/002</td>
</tr>
<tr>
<td>Modify a CDMI Queue</td>
<td>[Yes]</td>
<td>TD/CDMI/QUEUE/UPDATE/002</td>
</tr>
<tr>
<td>Modify the metadata of a CDMI Queue</td>
<td>[Yes]</td>
<td>TD/CDMI/QUEUE/UPDATE/002</td>
</tr>
<tr>
<td>Modify a value in a CDMI Queue</td>
<td>[Yes]</td>
<td>TD/CDMI/QUEUE/ENQUEUE/001</td>
</tr>
<tr>
<td>Delete a CDMI Queue</td>
<td>[Yes]</td>
<td>TD/CDMI/QUEUE/DELETE/001</td>
</tr>
</tbody>
</table>

### 6.4 CDMI Client

### Table 19: CDMI Data Object features supported by CDMI Client

<table>
<thead>
<tr>
<th>Feature</th>
<th>Support</th>
<th>Dependent test descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/CREATE/001</td>
</tr>
<tr>
<td>Create a reference to a CDMI Data Object</td>
<td>[No]</td>
<td>TD/CDMI/DATA/CREATE/002</td>
</tr>
<tr>
<td>Copy a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/CREATE/003</td>
</tr>
<tr>
<td>Move a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/CREATE/004</td>
</tr>
<tr>
<td>Deserialize a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/CREATE/005</td>
</tr>
<tr>
<td>Serialize a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/CREATE/006</td>
</tr>
<tr>
<td>Retrieve a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/READ/001</td>
</tr>
<tr>
<td>Read the metadata of a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/READ/002</td>
</tr>
<tr>
<td>Read the value of a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/READ/003</td>
</tr>
<tr>
<td>Read specific byte range from the value of a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/READ/004</td>
</tr>
<tr>
<td>Modify a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/UPDATE/001</td>
</tr>
<tr>
<td>Modify the metadata of a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/UPDATE/002</td>
</tr>
<tr>
<td>Modify the value of a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/UPDATE/003</td>
</tr>
<tr>
<td>Modify specific byte range from the value of a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/UPDATE/004</td>
</tr>
<tr>
<td>Delete a CDMI Data Object</td>
<td>[Yes]</td>
<td>TD/CDMI/DATA/DELETE/001</td>
</tr>
</tbody>
</table>
### Table 20: CDMI Container features supported by CDMI Client

<table>
<thead>
<tr>
<th>Feature</th>
<th>Support [Yes/No]</th>
<th>Dependent test descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a CDMI Container</td>
<td>TD/CDMI/CONTAINER/CREATE/001</td>
<td></td>
</tr>
<tr>
<td>Create a reference to a CDMI Container</td>
<td>TD/CDMI/CONTAINER/CREATE/002</td>
<td></td>
</tr>
<tr>
<td>Copy a CDMI Container</td>
<td>TD/CDMI/CONTAINER/CREATE/003</td>
<td></td>
</tr>
<tr>
<td>Move a CDMI Container</td>
<td>TD/CDMI/CONTAINER/CREATE/004</td>
<td></td>
</tr>
<tr>
<td>Deserialize a CDMI Container</td>
<td>TD/CDMI/CONTAINER/CREATE/005</td>
<td></td>
</tr>
<tr>
<td>Retrieve a CDMI Container</td>
<td>TD/CDMI/CONTAINER/READ/001</td>
<td></td>
</tr>
<tr>
<td>Read the metadata of a CDMI Container</td>
<td>TD/CDMI/CONTAINER/READ/002</td>
<td></td>
</tr>
<tr>
<td>List children of a CDMI Container</td>
<td>TD/CDMI/CONTAINER/READ/003</td>
<td></td>
</tr>
<tr>
<td>List range of children of a CDMI Container</td>
<td>TD/CDMI/CONTAINER/READ/004</td>
<td></td>
</tr>
<tr>
<td>Modify a CDMI Container</td>
<td>TD/CDMI/CONTAINER/UPDATE/001</td>
<td></td>
</tr>
<tr>
<td>Modify the metadata of a CDMI Container</td>
<td>TD/CDMI/CONTAINER/UPDATE/002</td>
<td></td>
</tr>
<tr>
<td>Snapshot a CDMI Container</td>
<td>TD/CDMI/CONTAINER/UPDATE/003</td>
<td></td>
</tr>
<tr>
<td>Delete a CDMI Container</td>
<td>TD/CDMI/CONTAINER/DELETE/001</td>
<td></td>
</tr>
</tbody>
</table>

### Table 21: CDMI Domain features supported by CDMI Client

<table>
<thead>
<tr>
<th>Feature</th>
<th>Support [Yes/No]</th>
<th>Dependent test descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a CDMI Domain</td>
<td>TD/CDMI/DOMAIN/CREATE/001</td>
<td></td>
</tr>
<tr>
<td>Copy a CDMI Domain</td>
<td>TD/CDMI/DOMAIN/CREATE/002</td>
<td></td>
</tr>
<tr>
<td>Deserialize a CDMI Domain</td>
<td>TD/CDMI/DOMAIN/CREATE/003</td>
<td></td>
</tr>
<tr>
<td>Retrieve a CDMI Domain</td>
<td>TD/CDMI/DOMAIN/READ/001</td>
<td></td>
</tr>
<tr>
<td>Read the metadata of a CDMI Domain</td>
<td>TD/CDMI/DOMAIN/READ/002</td>
<td></td>
</tr>
<tr>
<td>List children of a CDMI Object</td>
<td>TD/CDMI/DOMAIN/READ/003</td>
<td></td>
</tr>
<tr>
<td>Modify a CDMI Domain</td>
<td>TD/CDMI/DOMAIN/UPDATE/001</td>
<td></td>
</tr>
<tr>
<td>Modify the metadata of a CDMI Domain</td>
<td>TD/CDMI/DOMAIN/UPDATE/002</td>
<td></td>
</tr>
<tr>
<td>Delete a CDMI Domain</td>
<td>TD/CDMI/DOMAIN/DELETE/001</td>
<td></td>
</tr>
</tbody>
</table>

### Table 22: Features supported by CDMI Client

<table>
<thead>
<tr>
<th>Feature</th>
<th>Support [Yes/No]</th>
<th>Dependent test descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a CDMI Queue</td>
<td>TD/CDMI/QUEUE/CREATE/001</td>
<td></td>
</tr>
<tr>
<td>Create a reference to a CDMI Queue</td>
<td>TD/CDMI/QUEUE/CREATE/002</td>
<td></td>
</tr>
<tr>
<td>Copy a CDMI Queue</td>
<td>TD/CDMI/QUEUE/CREATE/003</td>
<td></td>
</tr>
<tr>
<td>Move a CDMI Queue</td>
<td>TD/CDMI/QUEUE/CREATE/004</td>
<td></td>
</tr>
<tr>
<td>Deserialize a CDMI Queue</td>
<td>TD/CDMI/QUEUE/CREATE/005</td>
<td></td>
</tr>
<tr>
<td>Retrieve a CDMI Queue</td>
<td>TD/CDMI/QUEUE/READ/001</td>
<td></td>
</tr>
<tr>
<td>Read the metadata of a CDMI Queue</td>
<td>TD/CDMI/QUEUE/READ/002</td>
<td></td>
</tr>
<tr>
<td>Read a value from a CDMI Queue</td>
<td>TD/CDMI/QUEUE/READ/003 TD/CDMI/QUEUE/READ/004 TD/CDMI/QUEUE/READ/005</td>
<td></td>
</tr>
<tr>
<td>Modify a CDMI Queue</td>
<td>TD/CDMI/QUEUE/UPDATE/002</td>
<td></td>
</tr>
<tr>
<td>Modify the metadata of a CDMI Queue</td>
<td>TD/CDMI/QUEUE/UPDATE/002</td>
<td></td>
</tr>
<tr>
<td>Modify a value in a CDMI Queue</td>
<td>TD/CDMI/QUEUE/ENQUEUE/001 TD/CDMI/QUEUE/ENQUEUE/002 TD/CDMI/QUEUE/ENQUEUE/003 TD/CDMI/QUEUE/DEQUEUE/001 TD/CDMI/QUEUE/DEQUEUE/002</td>
<td></td>
</tr>
<tr>
<td>Delete a CDMI Queue</td>
<td>TD/CDMI/QUEUE/DELETE/001</td>
<td></td>
</tr>
</tbody>
</table>
7 OCCI

This section provides the test descriptions for the different OCCI features.

7.1 OCCI Core

7.1.1 Discovery Interface

7.1.1.1 TD/OCCI/CORE/DISCOVERY/001

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/CORE/DISCOVERY/001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Retrieving all OCCI Categories supported by the OCCI Server</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>GFD.185 [3], clause 3.4.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests all OCCI Categories supported by the OCCI Server</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>OCCI Client sends a HTTP GET request</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request-URI is /-/ or /well-known/org/ogf/occi/-/</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing at least one of the following MIME types:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/occi</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• application/occi+json</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>OCCI Server sends a HTTP 200 (OK) response</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body contains all OCCI Categories supported by the OCCI Server and at least the following categories</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• <a href="http://schemas.ogf.org/occi/core#entity">http://schemas.ogf.org/occi/core#entity</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• <a href="http://schemas.ogf.org/occi/core#resource">http://schemas.ogf.org/occi/core#resource</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• <a href="http://schemas.ogf.org/occi/core#link">http://schemas.ogf.org/occi/core#link</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The format of all OCCI Categories is compliant with the requested MIME type and the OCCI format restrictions</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>OCCI Client displays the OCCI Categories received from the OCCI Server</td>
<td></td>
</tr>
</tbody>
</table>
### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/CORE/DISCOVERY/002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Retrieving the OCCI Categories with an OCCI Category filter from the OCCI Server</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>GFD.185 [3], clause 3.4.1</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>OCCI Client selects an OCCI Category provided by the discovery interface as described in TD/OCCI/CORE/DISCOVERY/001</td>
</tr>
</tbody>
</table>

#### Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests from the OCCI Server the OCCI Categories related to the OCCI Category retrieved in the pre-test conditions</td>
</tr>
</tbody>
</table>
| 2    | check  | OCCI Client sends a HTTP GET request  
  • Request-URI is /-/ or /./well-known/org/ogf/occi/-/  
  • If HTTP Accept header is present it is containing at least one of the following MIME types:  
    • text/occi  
    • text/plain  
    • application/occi+json  
  • HTTP Content-Type header is one of the following MIME types  
    • text/occi  
    • text/plain  
    • application/occi+json  
  • The OCCI Category description is compliant with the requested MIME type and the OCCI format restrictions |
| 3    | check  | OCCI Server sends a HTTP 200 (OK) response  
  • HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
  • HTTP Body contains the OCCI Categories related to the OCCI Category filter  
  • The format of all OCCI Categories is compliant with the requested MIME type and the OCCI format restrictions |
| 4    | verify | OCCI Client displays the OCCI Categories received from the OCCI Server |
7.1.2 Create

7.1.2.1 TD/OCCI/CORE/CREATE/001

<table>
<thead>
<tr>
<th>Interoperability Test Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identifier:</strong> TD/OCCI/CORE/CREATE/001</td>
</tr>
<tr>
<td><strong>Objective:</strong> Create an OCCI Resource</td>
</tr>
<tr>
<td><strong>Configuration:</strong> OCCI_CFG_01</td>
</tr>
<tr>
<td><strong>References:</strong> OCCI - GFD.185 [3], clause 3.4.4</td>
</tr>
</tbody>
</table>

**Pre-test conditions:**
OCCI Client selects an OCCI Kind describing an OCCI Resource as provided by the discovery interface as described in TD/OCCI/CORE/DISCOVERY/001
OCCI Client uses the information provided by the selected OCCI Kind to define an OCCI Resource

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td><strong>OCCI Client requests OCCI Server to create OCCI Resource as defined in Pre-test conditions</strong></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>check</td>
<td><strong>OCCI Client sends a HTTP POST request</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Request-URI is the location of the OCCI Kind corresponding to the OCCI Resource to be created</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Content-Type header is one of the following MIME types</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- text/occi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- text/plain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- application/occi+json</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Body contains the OCCI Resource description</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- The OCCI Resource description is compliant with the requested MIME type and the OCCI format restrictions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing at least one of the following MIME types:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- text/occi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- text/plain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- text/uri-list</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- application/occi+json</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>check</td>
<td><strong>OCCI Server sends a HTTP 201 (CREATED) response</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Location header contains URL of the created OCCI Resource</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>verify</td>
<td><strong>OCCI Client reports success of create operation and may display URL of created OCCI Resource</strong></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>verify</td>
<td><strong>OCCI Resource has been successfully created by OCCI Server</strong></td>
</tr>
</tbody>
</table>
7.1.2.2 TD/OCCI/CORE/CREATE/002

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/CORE/CREATE/002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create an OCCI Resource with an OCCI Mixin</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>OCCI - GFD.185 [3], clause 3.4.4</td>
</tr>
</tbody>
</table>

Pre-test conditions:
- OCCI Client selects an OCCI Kind describing an OCCI Resource as provided by the discovery interface as described in TD/OCCI/CORE/DISCOVERY/001
- OCCI Client selects an OCCI Mixin as provided by the discovery interface as described in TD/OCCI/CORE/DISCOVERY/001
- OCCI Client uses the information provided by the selected OCCI Kind and OCCI Mixin to define an OCCI Resource

Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to create OCCI Resource as defined in Pre-test conditions</td>
</tr>
</tbody>
</table>
| 2    | check | OCCI Client sends a HTTP POST request  
  - Request-URI is the location of the OCCI Kind corresponding to the OCCI Resource to be created  
  - HTTP Content-Type header is one of the following MIME types  
    - text/occi  
    - text/plain  
    - application/occi+json  
  - HTTP Body contains the OCCI Resource description  
  - The OCCI Resource description is compliant with the requested MIME type and the OCCI format restrictions  
  - If HTTP Accept header is present it is containing at least one of the following MIME types:  
    - text/occi  
    - text/plain  
    - text/uri-list  
    - application/occi+json  |
| 3    | check | OCCI Server sends a HTTP 201 (CREATED) response  
  - HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
  - HTTP Location header contains URL of the created OCCI Resource |
| 4    | verify | OCCI Client reports success of create operation and may display URL of created OCCI Resource |
| 5    | verify | OCCI Resource has been successfully created by OCCI Server  
  OCCI Resource contains OCCI Mixin |
## Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/CORE/CREATE/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create an OCCI Resource with an OCCI Link to an existing OCCI Resource</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>OCCI - GFD.185 [3], clause 3.4.4</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>OCCI Client retrieves the URL of an OCCI Resource to be linked e.g. by using the OCCI Resource URL as returned in TD/OCCI/CORE/CREATE/001 or TD/OCCI/CORE/READ/001. OCCI Client selects an OCCI Kind describing an OCCI Resource and an OCCI Kind describing an OCCI Link as provided by the discovery interface as described in TD/OCCI/CORE/DISCOVERY/001. OCCI Client uses the information provided by the selected OCCI Kind to define an OCCI Resource with a link to the existing OCCI Resource.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to create OCCI Resource as defined in Pre-test conditions</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>OCCI Client sends a HTTP POST request</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request-URI is the location of the OCCI Kind corresponding to the OCCI Resource to be created</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is one of the following MIME types:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/occi</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• application/occi+json</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body contains the OCCI Resource description</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The OCCI Resource description is compliant with the requested MIME type and the OCCI format restrictions</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing at least one of the following MIME types:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/occi</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/uri-list</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• application/occi+json</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>OCCI Server sends a HTTP 201 (CREATED) response</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Location header contains URL of the created OCCI Resource</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>OCCI Client reports success of create operation and may display URL of created OCCI Resource</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td>OCCI Resource has been successfully created by OCCI Server</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OCCI Resource has been successfully linked with existing OCCI Resource</td>
<td></td>
</tr>
</tbody>
</table>
### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier</th>
<th>TD/OCCI/CORE/CREATE/004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Create an OCCI Link</td>
</tr>
<tr>
<td>Configuration</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References</td>
<td>OCCI - GFD.185 [3], clause 3.4.5</td>
</tr>
</tbody>
</table>

**Pre-test conditions:**
- OCCI Client selects an OCCI Kind describing an OCCI Link as provided by the discovery interface as described in TD/OCCI/CORE/DISCOVERY/001
- OCCI Client uses the information provided by the selected OCCI Kind to define an OCCI Link
- Two existing OCCI Resources to be linked with each other

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to create OCCI Link as defined in Pre-test conditions</td>
<td></td>
</tr>
</tbody>
</table>
| 2             | check | OCCI Client sends a HTTP POST request  
  - Request-URI is the location of the OCCI Kind corresponding to the OCCI Link to be created  
  - HTTP Content-Type header is one of the following MIME types  
    - text/ooci  
    - text/plain  
    - application/ooci+json  
  - HTTP Body contains the OCCI Link description with the two OCCI Resources to be linked as source and target  
  - The OCCI Resource description is compliant with the requested MIME type and the OCCI format restrictions  
  - If HTTP Accept header is present it is containing at least one of the following MIME types:  
    - text/ooci  
    - text/plain  
    - text/uri-list  
    - application/ooci+json |
| 3             | check | OCCI Server sends a HTTP 201 (CREATED) response  
  - HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
  - HTTP Location header contains URL of the created OCCI Link |
| 4             | verify | OCCI Client reports success of create operation and may display URL of created OCCI Link |
| 5             | verify | OCCI Link has been successfully created by OCCI Server |
## 7.1.2.5 TD/OCCI/CORE/CREATE/005

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/CORE/CREATE/005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create an OCCI Link with an OCCI Mixin</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>OCCI - GFD.185 [3], clause 3.4.5</td>
</tr>
</tbody>
</table>

**Pre-test conditions:**
- OCCI Client selects an OCCI Kind describing an OCCI Link as provided by the discovery interface as described in TD/OCCI/CORE/DISCOVERY/001
- OCCI Client selects an OCCI Mixin as provided by the discovery interface as described in TD/OCCI/CORE/DISCOVERY/001
- OCCI Client uses the information provided by the selected OCCI Kind and OCCI Mixin to define an OCCI Link
Two existing OCCI Resources to be linked with each other

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to create OCCI Link as defined in Pre-test conditions</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>OCCI Client sends a HTTP POST request</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request-URI is the location of the OCCI Kind corresponding to the OCCI Link to be created</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is one of the following MIME types:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/occi</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• application/occi+json</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body contains the OCCI Link description with the two OCCI Resources to be linked as source and target</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The OCCI Resource description is compliant with the requested MIME type and the OCCI format restrictions</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing at least one of the following MIME types:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/occi</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/uri-list</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• application/occi+json</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>OCCI Server sends a HTTP 201 (CREATED) response</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GFD.185 [3], clause 3.6.6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Location header contains URL of the created OCCI Link</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>OCCI Client reports success of create operation and may display URL of created OCCI Link</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td>OCCI Link has been successfully created by OCCI Server</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OCCI Link contains OCCI Mixin</td>
<td></td>
</tr>
</tbody>
</table>
7.1.2.6 TD/OCCI/CORE/CREATE/006

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/CORE/CREATE/006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Add an OCCI Mixin definition</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>OCCI - GFD.185 [3], clause 3.4.1</td>
</tr>
</tbody>
</table>

Pre-test conditions:

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to add an OCCI Mixin definition</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>OCCI Client sends a HTTP POST request</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Request-URI is /-/ or ./well-known/ogf/occi/-/</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Content-Type header is one of the following MIME types:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- text/occi</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- text/plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- application/occi+json</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Body contains the OCCI Mixin description</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- The OCCI Mixin description is compliant with the requested MIME type and the OCCI format restrictions</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>OCCI Server sends a HTTP 200 (OK) response</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>OCCI Client reports success of adding OCCI Mixin</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td>OCCI Mixin has been added to OCCI Category Collection on OCCI Server</td>
<td></td>
</tr>
</tbody>
</table>

7.1.3 Read

7.1.3.1 TD/OCCI/CORE/READ/001

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/CORE/READ/001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Retrieve the URLs of all OCCI Entities belonging to an OCCI Kind or OCCI Mixin</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>OCCI - GFD.185 [3], clause 3.4.4</td>
</tr>
<tr>
<td></td>
<td>OCCI - GFD.185 [3], clause 3.4.5</td>
</tr>
</tbody>
</table>

Pre-test conditions:

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to send the URLs of all OCCI Entities belonging to the OCCI Kind or OCCI Mixin</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>OCCI Client sends a HTTP GET request</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Request-URI is the location of the OCCI Kind or OCCI Mixin</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing at least one of the following MIME types:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- text/plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- text/occi</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- text/uri-list</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>OCCI Server sends a HTTP 200 (OK) response</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP header or HTTP body contains the rendering of the URLs of the OCCI Entity according to the MIME type specified in the HTTP Content-type header</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>OCCI Client displays the URLs of the OCCI Entities</td>
<td></td>
</tr>
</tbody>
</table>
### Interoperability Test Description

**Identifier:** TD/OCCI/CORE/READ/002  
**Objective:** Retrieve the URLs of the OCCI Entities belonging to an OCCI Kind or OCCI Mixin and related to an OCCI Category filter  
**Configuration:** OCCI_CFG_01  
**References:** OCCI - GFD.185 [3], clause 3.4.4, OCCI - GFD.185 [3], clause 3.4.5

**Pre-test conditions:**  
OCCI Client retrieves the description of an OCCI Kind or OCCI Mixin as returned in TD/OCCI/CORE/DISCOVERY/001  
OCCI Client extracts the location of the OCCI Kind or OCCI Mixin from the description  
OCCI Client selects an OCCI Category filter

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to send the URLs of the OCCI Entities belonging to the OCCI Kind or OCCI Mixin and related to the OCCI Category filter</td>
</tr>
</tbody>
</table>
| 2             |      | check   | OCCI Client sends a HTTP GET request  
- Request-URI is the location of the OCCI Kind or OCCI Mixin  
- If HTTP Accept header is present it is containing at least one of the following MIME types:  
  - text/plain  
  - text/occi  
  - text/uri-list  
- HTTP Content-Type header is one of the following MIME types:  
  - text/occi  
  - text/plain  
  - application/occi+json  
- HTTP header or HTTP body contains the OCCI Category rendering according to the requested MIME type and the OCCI format restrictions |
| 3             |      | check   | OCCI Server sends a HTTP 200 (OK) response  
- HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
- HTTP header or HTTP body contains the rendering of the URLs of the OCCI Entities according to the MIME type specified in the HTTP Content-type header |
| 4             |      | verify  | OCCI Client only displays the URLs of the OCCI Entities which belong to the OCCI Kind or OCCI Mixin and are related to the OCCI Category specified as filter |
7.1.3.3 TD/OCCI/CORE/READ/003

Interoperability Test Description

**Identifier:** TD/OCCI/CORE/READ/003  
**Objective:** Retrieve the URLs of the OCCI Entities belonging to an OCCI Kind or OCCI Mixin which contain a specific Attribute  
**Configuration:** OCCI_CFG_01  
**References:** OCCI - GFD.185 [3], clause 3.4.4  
OCCI - GFD.185 [3], clause 3.4.5  
**Pre-test conditions:** OCCI Client retrieves the description of an OCCI Kind or OCCI Mixin as returned in TD/OCCI/CORE/DISCOVERY/001  
OCCI Client extracts the location of the OCCI Kind or OCCI Mixin from the description  
OCCI Client selects an OCCI Category and extracts an Attribute from it as filter  

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to send the URLs of the OCCI Entities belonging to the OCCI Kind or OCCI Mixin which contain a specific Attribute</td>
</tr>
</tbody>
</table>
|               | 2    | check   | OCCI Client sends a HTTP GET request  
- Request-URI is the location of the OCCI Kind  
- If HTTP Accept header is present it is containing at least one of the following MIME types:  
  - text/plain  
  - text/occi  
  - text/uri-list  
- HTTP Content-Type header is one of the following MIME types:  
  - text/occi  
  - text/plain  
- HTTP header or HTTP body contains the Attribute rendering according to the requested MIME type and the OCCI format restrictions |
|               | 3    | check   | OCCI Server sends a HTTP 200 (OK) response  
- HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
- HTTP header or HTTP body contains the rendering of the URLs of the OCCI Entities according to the MIME type specified in the HTTP Content-type header |
|               | 4    | verify  | OCCI Client only displays the URLs of the OCCI Entities which belong to the OCCI Kind or OCCI Mixin and contain the specified attribute |

7.1.3.4 TD/OCCI/CORE/READ/004

Interoperability Test Description

**Identifier:** TD/OCCI/CORE/READ/004  
**Objective:** Retrieve the descriptions of all OCCI Entities belonging to an OCCI Kind or Mixin  
**Configuration:** OCCI_CFG_01  
**References:** OCCI - GFD.185 [3], clause 3.4.3  
**Pre-test conditions:** OCCI Client retrieves the description of an OCCI Kind or OCCI Mixin as returned in TD/OCCI/CORE/DISCOVERY/001  
OCCI Client extracts the location of the OCCI Kind or OCCI Mixin from its description  

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to send the descriptions of all OCCI Resources belonging to the OCCI Kind or Mixin</td>
</tr>
</tbody>
</table>
|               | 2    | check   | OCCI Client sends a HTTP GET request  
- Request-URI is the location of the OCCI Kind or OCCI Mixin  
- HTTP Accept header is:  
  - application/occi+json |
|               | 3    | check   | OCCI Server sends a HTTP 200 (OK) response  
- HTTP Content-Type header is:  
  - application/occi+json  
- HTTP Body contains the json rendering of the description of the OCCI Resources |
|               | 4    | verify  | OCCI Client displays the descriptions of the OCCI Resources which belong to the OCCI Kind or OCCI Mixin |
### 7.1.3.5 TD/OCCI/CORE/READ/005

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/CORE/READ/005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Retrieve the descriptions of the OCCI Entities belonging to an OCCI Kind or OCCI Mixin and related to an OCCI Category filter</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>OCCI - GFD.185 [3], clause 3.4.3</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>OCCI Client retrieves the description of an OCCI Kind or OCCI Mixin as returned in TD/OCCI/CORE/DISCOVERY/001. OCCI Client extracts the location of the OCCI Kind or OCCI Mixin from the description. OCCI Client selects an OCCI Category filter.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to send the descriptions of the OCCI Entities belonging to the OCCI Kind or OCCI Mixin and related to the OCCI Category filter.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>check</td>
<td>OCCI Client sends a HTTP GET request. Request-URI is the location of the OCCI Kind or OCCI Mixin. HTTP Accept header is: application/occi+json. HTTP Content-Type header is one of the following MIME types: text/occi, text/plain, application/occi+json. HTTP header or HTTP body contains the OCCI Category rendering according to the requested MIME type and the OCCI format restrictions.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>check</td>
<td>OCCI Server sends a HTTP 200 (OK) response. HTTP Content-Type header is application/occi+json. HTTP Body contains the descriptions of the OCCI Entities according to the MIME type specified in the HTTP Content-type header.</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>verify</td>
<td>OCCI Client only displays the descriptions of the OCCI Entities which belong to the OCCI Kind or OCCI Mixin and are related to the OCCI Category specified as filter.</td>
</tr>
</tbody>
</table>
### 7.1.3.6 TD/OCCI/CORE/READ/006

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/CORE/READ/006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Retrieve the descriptions of the OCCI Entities belonging to an OCCI Kind or OCCI Mixin and containing the Attribute filter</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>OCCI - GFD.185 [3], clause 3.4.2</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>OCCI Client retrieves the description of an OCCI Kind or OCCI Mixin as returned in TD/OCCI/CORE/DISCOVERY/001</td>
</tr>
<tr>
<td>Test Sequence:</td>
<td></td>
</tr>
<tr>
<td>Step</td>
<td>Type</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>1</td>
<td>stimulus</td>
</tr>
</tbody>
</table>
| 2    | check | OCCI Client sends a HTTP GET request:  
  - Request-URI is the location of the OCCI Kind or OCCI Mixin  
  - HTTP Accept header is:  
    - application/occi+json  
    - text/occi  
    - text/plain  
  - HTTP Content-Type header is one of the following MIME types  
  - text/occi  
  - text/plain  
  - HTTP header or HTTP body contains the Attribute rendering according to the requested MIME type and the OCCI format restrictions |
| 3    | check | OCCI Server sends a HTTP 200 (OK) response:  
  - HTTP Content-Type header is:  
    - application/occi+json  
  - HTTP Body contains the descriptions of the OCCI Resources according to the MIME type specified in the HTTP Content-type header |
| 4    | verify | OCCI Client only displays the descriptions of the OCCI Entities which belong to the OCCI Kind or OCCI Mixin and contain the specified attribute |

### 7.1.3.7 TD/OCCI/CORE/READ/007

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/CORE/READ/007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Retrieve the description of an OCCI Entity</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
</tbody>
</table>
| References: | OCCI - GFD.185 [3], clause 3.4.4  
                OCCI - GFD.185 [3], clause 3.4.5          |
<p>| Pre-test conditions: | OCCI Client retrieves the URL of an OCCI Entity as returned in TD/OCCI/CORE/READ/001   |
| Test Sequence: | |</p>
<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to send the description of the OCCI Entity</td>
</tr>
</tbody>
</table>
| 2    | check | OCCI Client sends a HTTP GET request:  
  - Request-URI is the location of the OCCI Entity  
  - If HTTP Accept header is present it is containing at least one of the following MIME types:  
    - text/plain  
    - text/occi  
    - application/occi+json |
| 3    | check | OCCI Server sends a HTTP 200 (OK) response:  
  - HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
  - HTTP header or HTTP body message contains the rendering of the OCCI Entity according to the MIME type specified in the HTTP Content-type header |
| 4    | verify | OCCI Client displays the description of the OCCI Entity |
7.1.4 Update

7.1.4.1 TD/OCCI/CORE/UPDATE/001

<table>
<thead>
<tr>
<th>Interoperability Test Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identifier:</strong> TD/OCCI/CORE/UPDATE/001</td>
</tr>
<tr>
<td><strong>Objective:</strong> Full update of a specific OCCI Entity</td>
</tr>
<tr>
<td><strong>Configuration:</strong> OCCI_CFG_01</td>
</tr>
<tr>
<td><strong>References:</strong> OCCI - GFD.185 [3], clause 3.4.4</td>
</tr>
<tr>
<td><strong>Pre-test conditions:</strong> OCCI Client retrieves the URL of an OCCI Entity as returned in TD/OCCI/CORE/READ/001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to replace the description of the OCCI Entity</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>OCCI Client sends a HTTP PUT request</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request-URI is the location of the OCCI Entity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is one of the following MIME types:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/occi</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• application/occi+json</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body contains the OCCI Entity description</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The OCCI Entity description is compliant with the requested MIME type and the OCCI format restrictions</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing at least one of the following MIME types:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/occi</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• text/uri-list</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• application/occi+json</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>If OCCI Server sends a HTTP 200 (OK) response</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Header or HTTP Body contains the full, updated description of the OCCI Entity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>If OCCI Server sends a HTTP 201 (CREATED) response</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Location header contains URL of the updated OCCI Entity</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>OCCI Client displays success of update operation</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td>OCCI Server has replaced the description of the OCCI Entity</td>
<td></td>
</tr>
</tbody>
</table>
### Interoperability Test Description

**Identifier:** TD/OCCI/CORE/UPDATE/002  
**Objective:** Partial update of a specific OCCI Entity  
**Configuration:** OCCI_CFG_01  
**References:** OCCI - GFD.185 [3], clause 3.4.4  
**Pre-test conditions:** OCCI Client retrieves the URL of an OCCI Entity as returned in TD/OCCI/CORE/READ/001

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to update the description of the OCCI Entity</td>
</tr>
</tbody>
</table>
|               | 2    | check | OCCI Client sends a HTTP POST request  
|               |      |      | - Request-URI is the location of the OCCI Entity  
|               |      |      | - HTTP Content-Type header is one of the following MIME types:  
|               |      |      |   - text/occi  
|               |      |      |   - text/plain  
|               |      |      |   - application/occi+json  
|               |      |      | - HTTP Body contains the part of the OCCI Entity description which is to be updated  
|               |      |      | - The OCCI Entity description is compliant with the requested MIME type and the OCCI format restrictions  
|               |      |      | - If HTTP Accept header is present it is containing at least one of the following MIME types:  
|               |      |      |   - text/occi  
|               |      |      |   - text/plain  
|               |      |      |   - text/uri-list  
|               |      |      |   - application/occi+json  |
|               | 3    | check | If OCCI Server sends a HTTP 200 (OK) response  
|               |      |      | - HTTP Content-Type header corresponds to request’s HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
|               |      |      | - HTTP Header or HTTP Body contains the full, updated description of the OCCI Entity  
|               |      |      | If OCCI Server sends a HTTP 201 (CREATED) response  
|               |      |      | - HTTP Content-Type header corresponds to request’s HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
|               |      |      | - HTTP Location header contains URL of the updated OCCI Entity  |
|               | 4    | verify | OCCI Client displays success of update operation  |
|               | 5    | verify | OCCI Server has updated the description of the OCCI Entity |
7.1.4.3 TD/OCCI/CORE/UPDATE/003

**Interoperability Test Description**

**Identifier:** TD/OCCI/CORE/UPDATE/003  
**Objective:** Full update of a specific OCCI Mixin Collection  
**Configuration:** OCCI_CFG_01  
**References:** OCCI - GFD.185 [3], clause 3.4.3  
**Pre-test conditions:** OCCI Client retrieves the description of an OCCI Mixin as returned in TD/OCCI/CORE/DISCOVERY/001. OCCI Client extracts the location from the OCCI Mixin.

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests the OCCI Server to replace the OCCI Entities associated with the OCCI Mixin.</td>
</tr>
</tbody>
</table>
|               | 2    | check   | OCCI Client sends a HTTP PUT request  
|               |      |         | • Request-URI is the location of the OCCI Mixin  
|               |      |         | • HTTP Content-Type header is one of the following MIME types:  
|               |      |         | • text/occi  
|               |      |         | • text/plain  
|               |      |         | • text/uri-list  
|               |      |         | • HTTP Body contains a list of the URIs of the OCCI Entities which are to be associated with the OCCI Mixin  
|               |      |         | • The list of URIs is compliant with the requested MIME type and the OCCI format restrictions |
|               | 3    | check   | OCCI Server sends a HTTP 200 (OK) response |
|               | 4    | verify  | OCCI Client displays success of update operation |
|               | 5    | verify  | OCCI Server has disassociated all OCCI Entities from the OCCI Mixin  
|               |      |         | OCCI Server has associated OCCI Entities from the request with the OCCI Mixin |

7.1.5 Delete

7.1.5.1 TD/OCCI/CORE/DELETE/001

**Interoperability Test Description**

**Identifier:** TD/OCCI/CORE/DELETE/001  
**Objective:** Delete an OCCI Entity  
**Configuration:** OCCI_CFG_01  
**References:** OCCI - GFD.185 [3], clause 3.4.4  
**Pre-test conditions:** OCCI Client retrieves the URL of an OCCI Entity as returned in TD/OCCI/CORE/READ/001.

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to delete the OCCI Entity</td>
</tr>
</tbody>
</table>
|               | 2    | check   | OCCI Client sends a HTTP DELETE request  
|               |      |         | • Request-URI is the location of the OCCI Entity |
|               | 3    | check   | OCCI Server sends a HTTP 200 (OK) response |
|               | 4    | verify  | OCCI Client displays success message |
|               | 5    | verify  | OCCI Server has deleted OCCI Entity |
### 7.1.5.2 TD/OCCI/CORE/DELETE/002

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/CORE/DELETE/002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Delete all OCCI Entities belonging to an OCCI Kind</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>OCCI - GFD.185 [3], clause 3.4.2</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>OCCI Client retrieves the description of an OCCI Kind as returned in TD/OCCI/CORE/DISCOVERY/001. OCCI Client extracts the location of the OCCI Kind from the description.</td>
</tr>
</tbody>
</table>

**Test Sequence:**

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to delete all OCCI Entities belonging to the OCCI Kind</td>
</tr>
</tbody>
</table>
|     2 | check | OCCI Client sends a HTTP DELETE request  
|      |      | • Request-URI is the location of the OCCI Kind |
|     3 | check | OCCI Server sends a HTTP 200 (OK) response |
|     4 | verify | OCCI Client displays success message |
|     5 | verify | OCCI Server has deleted all OCCI Entities belonging to the OCCI Kind |

### 7.1.5.3 TD/OCCI/CORE/DELETE/003

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/CORE/DELETE/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Delete an OCCI Mixin</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>OCCI - GFD.185 [3], clause 3.4.1</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>OCCI Client retrieves the description of an OCCI Mixin as returned in TD/OCCI/CORE/DISCOVERY/001</td>
</tr>
</tbody>
</table>

**Test Sequence:**

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to delete the OCCI Mixin</td>
</tr>
</tbody>
</table>
|     2 | check | OCCI Client sends a HTTP DELETE request  
|      |      | • Request-URI is /-/  
|      |      | • HTTP header or HTTP body contains the description of the OCCI Mixin |
|     3 | check | OCCI Server sends a HTTP 200 (OK) response |
|     4 | verify | OCCI Client displays success message |
|     5 | verify | OCCI Server removes all associations to the OCCI Mixin from OCCI Entity instances |
### 7.1.6 Miscellaneous

#### 7.1.6.1 TD/OCCI/CORE/MISC/001

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client selects an applicable OCCI Action from the OCCI Entity description and requests OCCI Server to trigger that OCCI Action</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>check</td>
<td>OCCI Client sends a HTTP POST request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Request-URI is the URI of the OCCI Resource with query string ?action=$ACTION where $ACTION corresponds to the term of the OCCI Action to be triggered</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Content-Type header is one of the following MIME types:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- text/occi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- text/plain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- application/occi+json</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Body contains the OCCI Action description</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- The OCCI Action description is compliant with the requested MIME type and the OCCI format restrictions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing at least one of the following MIME types:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- text/occi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- text/plain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- text/uri-list</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- application/occi+json</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>check</td>
<td>OCCI Server sends a HTTP 200 (OK) response</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GFD.185 [3], clause 3.6.6)</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>verify</td>
<td>OCCI Client reports that action was triggered successfully</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>verify</td>
<td>OCCI Action was triggered successfully by the OCCI Server on the OCCI Entity</td>
</tr>
</tbody>
</table>
7.1.6.2  TD/OCCI/CORE/MISC/002

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client selects an OCCI Action from the OCCI Kind or OCCI Mixin description and requests the OCCI Server to trigger that OCCI Action on all OCCI Entities belonging to the OCCI Kind or OCCI Mixin</td>
</tr>
</tbody>
</table>
| 2    | check   | OCCI Client sends a HTTP POST request  
  - Request-URI is the location of the OCCI Kind or OCCI Mixin with query string action=$ACTION where $ACTION corresponds to the term of the OCCI Action to be triggered  
  - HTTP Content-Type header is one of the following MIME types:  
    - text/occi  
    - text/plain  
    - application/occi+json  
  - HTTP Body contains the OCCI Action description  
  - The OCCI Action description is compliant with the requested MIME type and the OCCI format restrictions  
  - If HTTP Accept header is present it is containing at least one of the following MIME types:  
    - text/occi  
    - text/plain  
    - text/uri-list  
    - application/occi+json |
| 3    | check   | OCCI Server sends a HTTP 200 (OK) response  
  - HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6) |
| 4    | verify  | OCCI Client reports that action was triggered successfully |
| 5    | verify  | OCCI Action was triggered successfully by the OCCI Server on all OCCI Entities belonging to the OCCI Kind or OCCI Mixin |

7.1.6.3  TD/OCCI/CORE/MISC/003

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to associate the OCCI Entities with the OCCI Mixin</td>
</tr>
</tbody>
</table>
| 2    | check   | OCCI Client sends a HTTP POST request  
  - Request-URI is the location of the OCCI Mixin  
  - HTTP Content-Type header is one of the following MIME types:  
    - text/occi  
    - text/plain  
    - text/uri-list  
    - application/occi+json  
  - HTTP Body contains the URLs of the OCCI Entities |
| 3    | check   | OCCI Server sends a HTTP 200 (OK) response |
| 4    | verify  | OCCI Client displays successful association |
| 5    | verify  | OCCI Server associated OCCI Entities with OCCI Mixin |
7.1.6.4 TD/OCCI/CORE/MISC/004

Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier</th>
<th>TD/OCCI/CORE/MISC/004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Disassociate OCCI Entities from OCCI Mixin</td>
</tr>
<tr>
<td>Configuration</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References</td>
<td>OCCI - GFD.185 [3], clause 3.4.3</td>
</tr>
</tbody>
</table>

Pre-test conditions:
OCCI Client retrieves URLs of OCCI Entities as returned in TD/OCCI/CORE/READ/001
OCCI Client retrieves the description of an OCCI Mixin as returned in TD/OCCI/CORE/DISCOVERY/001
OCCI Client extracts the location from the OCCI Mixin description

Test Sequence: Step | Type | Description
---|---|---
1 | stimulus | OCCI Client requests OCCI Server to disassociate the OCCI Entities from the OCCI Mixin
2 | check | OCCI Client sends a HTTP DELETE request
• Request-URI is the location of the OCCI Mixin
• HTTP Content-Type header is one of the following MIME types:
  • text/occi
  • text/plain
  • text/uri-list
• HTTP Body contains the URLs of the OCCI Entities
3 | check | OCCI Server sends a HTTP 200 (OK) response
4 | verify | OCCI Client displays successful disassociation
5 | verify | OCCI Server disassociated OCCI Entities from OCCI Mixin

7.2 OCCI Infrastructure

7.2.1 Create

7.2.1.1 TD/OCCI/INFRA/CREATE/001

Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier</th>
<th>TD/OCCI/INFRA/CREATE/001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Create an OCCI Compute Resource</td>
</tr>
<tr>
<td>Configuration</td>
<td>OCCI_CFG_01</td>
</tr>
</tbody>
</table>
| References   | OCCI - GFD.185 [3], clause 3.4.4
  OCCI - GFD.184 [2], clause 3.1 |

Pre-test conditions:
OCCI Client selects the OCCI Kind of the OCCI Compute Resource as provided by the discovery interface TD/OCCI/CORE/DISCOVERY/001
OCCI Client uses the information provided by the selected OCCI Kind to define an OCCI Compute Resource

Test Sequence: Step | Type | Description
---|---|---
1 | stimulus | OCCI Client requests OCCI Server to create OCCI Compute Resource as defined in Pre-test conditions
2 | check | OCCI Client sends a HTTP POST request
• Request-URI is the location of the OCCI Kind corresponding to the OCCI Compute Resource to be created
• HTTP Content-Type header is one of the following MIME types:
  • text/occi
  • text/plain
  • application/occi+json
• HTTP Body contains the OCCI Compute Resource description
• The OCCI Compute Resource description is compliant with the requested MIME type and the OCCI format restrictions
• If HTTP Accept header is present it is containing at least one of the following MIME types:
  • text/occi
  • text/plain
  • text/uri-list
  • application/occi+json
3 check OCCI Server sends a HTTP 201 (CREATED) response
   • HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)
   • HTTP Location header contains URL of the created OCCI Compute Resource

4 verify OCCI Client reports success of create operation and may display URL of created OCCI Compute Resource

5 verify OCCI Compute Resource has been successfully created by OCCI Server

7.2.1.2 TD/OCCI/INFRA/CREATE/002

Interoperability Test Description

Identifier: TD/OCCI/INFRA/CREATE/002
Objective: Create an OCCI Storage Resource
Configuration: OCCI_CFG_01
References:
OCCI - GFD.185 [3], clause 3.4.4
OCCI - GFD.184 [2], clause 3.3

Pre-test conditions:
OCCI Client selects the OCCI Kind of the OCCI Storage Resource as provided by the discovery interface in TD/OCCI/CORE/DISCOVERY/001
OCCI Client uses the information provided by the selected OCCI Kind to define an OCCI Storage Resource

Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to create OCCI Storage Resource as defined in Pre-test conditions</td>
</tr>
</tbody>
</table>
| 2    | check  | OCCI Client sends a HTTP POST request  
   • Request-URI is the location of the OCCI Kind corresponding to the OCCI Storage Resource to be created  
   • HTTP Content-Type header is one of the following MIME types:  
     • text/occi  
     • text/plain  
     • application/occi+json  
   • HTTP Body contains the OCCI Storage Resource description  
   • The OCCI Storage Resource description is compliant with the requested MIME type and the OCCI format restrictions  
   • If HTTP Accept header is present it is containing at least one of the following MIME types:  
     • text/occi  
     • text/plain  
     • text/uri-list  
     • application/occi+json |
| 3    | check  | OCCI Server sends a HTTP 201 (CREATED) response  
   • HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
   • HTTP Location header contains URL of the created OCCI Resource |
| 4    | verify | OCCI Client reports success of create operation and may display URL of created OCCI Storage Resource |
| 5    | verify | OCCI Storage Resource has been successfully created by OCCI Server |
### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/INFRA/CREATE/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create an OCCI Network Resource</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
</tbody>
</table>
| References: | OCCI - GFD.185 [3], clause 3.4.4  
OCCI - GFD.184 [2], clause 3.2 |
| Pre-test conditions: | OCCI Client selects the OCCI Kind of the OCCI Network Resource as provided by the discovery interface in TD/OCCI/CORE/DISCOVERY/001  
OCCI Client uses the information provided by the selected OCCI Kind to define an OCCI Network Resource |

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td></td>
<td>OCCI Client requests OCCI Server to create OCCI Network Resource as defined in Pre-test conditions</td>
</tr>
</tbody>
</table>
| 2             | check  |      | OCCI Client sends a HTTP POST request  
• Request-URI is the location of the OCCI Kind corresponding to the OCCI Network Resource to be created  
• HTTP Content-Type header is one of the following MIME types:  
  • text/occi  
  • text/plain  
  • application/occi+json  
• HTTP Header or Body contains the OCCI Network Resource description  
• The OCCI Network Resource description is compliant with the requested MIME type and the OCCI format restrictions  
• If HTTP Accept header is present it is containing at least one of the following MIME types:  
  • text/occi  
  • text/plain  
  • text/uri-list  
  • application/occi+json |
| 3             | check  |      | OCCI Server sends a HTTP 201 (CREATED) response  
• HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
• HTTP Location header contains URL of the created OCCI Resource |
| 4             | verify |      | OCCI Client reports success of create operation and may display URL of created OCCI Network Resource |
| 5             | verify |      | OCCI Network Resource has been successfully created by OCCI Server |
### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/INFRA/CREATE/004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create an OCCI Compute Resource using an OS and resource template</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>OCCI - GFD.185 [3], clause 3.4.4</td>
</tr>
<tr>
<td></td>
<td>OCCI - GFD.184 [2], clause 3.1</td>
</tr>
<tr>
<td></td>
<td>OCCI - GFD.184 [2], clause 3.5</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>OCCI Client selects the OCCI Kind of the OCCI Compute Resource as provided by the discovery interface in TD/OCCI/CORE/DISCOVERY/001</td>
</tr>
<tr>
<td></td>
<td>OCCI Client selects an OCCI Mixin related to the OCCI OS Template Mixin and an OCCI Mixin related to the OCCI Resource Template Mixin as provided by the discovery interface in TD/OCCI/CORE/DISCOVERY/002</td>
</tr>
<tr>
<td></td>
<td>OCCI Client uses the information provided by the selected OCCI Kind and OCCI Mixins to define an OCCI Compute Resource</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to create OCCI Compute Resource as defined in Pre-test conditions</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>check</td>
<td>OCCI Client sends a HTTP POST request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Request-URI is the location of the OCCI Kind corresponding to the OCCI Compute Resource to be created</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Content-Type header is one of the following MIME types:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• text/occi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• text/plain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• application/occi+json</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Header or Body contains the OCCI Compute Resource description</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• The OCCI Compute Resource description is compliant with the requested MIME type and the OCCI format restrictions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing at least one of the following MIME types:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• text/occi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• text/plain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• text/uri-list</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• application/occi+json</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>check</td>
<td>OCCI Server sends a HTTP 201 (CREATED) response</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Location header contains URL of the created OCCI Resource</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>verify</td>
<td>OCCI Client reports success of create operation and may display URL of created OCCI Compute Resource</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>verify</td>
<td>OCCI Compute Resource has been successfully created by OCCI Server</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OCCI Compute Resource is associated with OCCI OS Template Mixin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OCCI Compute Resource is associated with OCCI Resource Template Mixin</td>
</tr>
</tbody>
</table>
## 7.2.1.5 TD/OCCI/INFRA/CREATE/005

<table>
<thead>
<tr>
<th>Description</th>
<th>Pre-test conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifier: TD/OCCI/INFRA/CREATE/005</td>
<td>OCCI Client retrieves the URL of an OCCI Storage Resource as returned in TD/OCCI/CORE/READ/002</td>
</tr>
<tr>
<td>Objective: Create an OCCI Compute Resource with an OCCI Storagelink and an OCCI Networkinterface</td>
<td>OCCI Client retrieves the URL of an OCCI Network Resource as returned in TD/OCCI/CORE/READ/002</td>
</tr>
<tr>
<td>Configuration: OCCI_CFG_01</td>
<td>OCCI Client selects the OCCI Kind of the OCCI Compute Resource as provided by the discovery interface in TD/OCCI/CORE/DISCOVERY/001</td>
</tr>
<tr>
<td>References: OCCI - GFD.185 [3], clause 3.4.4</td>
<td>OCCI Client uses the information provided by the selected OCCI Kind to define an OCCI Resource including an OCCI Storagelink with the URL of the OCCI Storage Resource as target and an OCCI Networkinterface with the URL of the OCCI Network Resource as target</td>
</tr>
</tbody>
</table>

### Test Sequence

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to create OCCI Compute Resource as defined in Pre-test conditions</td>
</tr>
</tbody>
</table>
| 2    | check  | OCCI Client sends a HTTP POST request  
  - Request-URI is the location of the OCCI Kind corresponding to the OCCI Compute Resource to be created  
  - HTTP Content-Type header is one of the following MIME types:  
    - text/occi  
    - text/plain  
    - application/occi+json  
  - HTTP Body contains the OCCI Compute Resource description  
  - The OCCI Compute Resource description is compliant with the requested MIME type and the OCCI format restrictions  
  - If HTTP Accept header is present it is containing at least one of the following MIME types:  
    - text/occi  
    - text/plain  
    - text/uri-list  
    - application/occi+json |
| 3    | check  | OCCI Server sends a HTTP 201 (CREATED) response  
  - HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
  - HTTP Location header contains URL of the created OCCI Resource |
| 4    | verify | OCCI Client reports success of create operation and may display URL of created OCCI Compute Resource |
| 5    | verify | OCCI Compute Resource has been successfully created by OCCI Server  
  OCCI Compute Resource is linked with OCCI Storage Resource  
  OCCI Compute Resource is linked with OCCI Network Resource |
7.2.1.6 TD/OCCI/INFRA/CREATE/006

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/INFRA/CREATE/006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create an OCCI Storagelink between an existing OCCI Compute and OCCI Storage Resource</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
</tbody>
</table>
| References: | OCCI - GFD.185 [3], clause 3.4.5  
              OCCI - GFD.184 [2], clause 3.4.2 |

**Pre-test conditions:**
- OCCI Client retrieves the URLs of an OCCI Compute Resource and an OCCI Storage Resource as returned in TD/OCCI/CORE/READ/002
- OCCI Client selects the OCCI Kind of the OCCI Storagelink as provided by the discovery interface in TD/OCCI/CORE/DISCOVERY/001
- OCCI Client uses the information provided by the selected OCCI Kind to define an OCCI Storagelink between the OCCI Compute and OCCI Storage Resource

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td></td>
<td>OCCI Client requests OCCI Server to create OCCI Storagelink as defined in Pre-test conditions</td>
</tr>
</tbody>
</table>
| 2             | check |  | OCCI Client sends a HTTP POST request  
              • Request-URI is the location of the OCCI Kind corresponding to the OCCI Storagelink to be created  
              • HTTP Content-Type header is one of the following MIME types:  
                • text/occi  
                • text/plain  
                • application/occi+json  
              • HTTP Body contains the OCCI Storagelink description  
              • The OCCI Storagelink description is compliant with the requested MIME type and the OCCI format restrictions  
              • If HTTP Accept header is present it is containing at least one of the following MIME types:  
                • text/occi  
                • text/plain  
                • text/uri-list  
                • application/occi+json |
| 3             | check |  | OCCI Server sends a HTTP 201 (CREATED) response  
              • HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
              • HTTP Location header contains URL of the created OCCI Resource |
| 4             | verify |  | OCCI Client reports success of create operation and may display URL of created OCCI Storagelink |
| 5             | verify |  | OCCI Storagelink has been successfully created by OCCI Server  
              OCCI Compute Resource is linked with OCCI Storage Resource |
### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/OCCI/INFRA/CREATE/007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create an OCCI Networkinterface between an existing OCCI Compute and OCCI Network Resource</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CFG_01</td>
</tr>
</tbody>
</table>
| References:       | OCCI - GFD.185 [3], clause 3.4.5  
|                   | OCCI - GFD.184 [2], clause 3.4.2 |
| Pre-test conditions: | OCCI Client retrieves the URLs of an OCCI Compute Resource and an OCCI Network Resource as returned in TD/OCCI/CORE/READ/002  
|                   | OCCI Client selects the OCCI Kind of the OCCI Networkinterface as provided by the discovery interface in TD/OCCI/CORE/DISCOVERY/001  
|                   | OCCI Client uses the information provided by the selected OCCI Kind to define an OCCI Networkinterface between the OCCI Compute and OCCI Network Resource |

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to create OCCI Networkinterface as defined in Pre-test conditions</td>
</tr>
</tbody>
</table>
|                | 2    | check | OCCI Client sends a HTTP POST request  
|                |     |      | - Request-URI is the location of the OCCI Kind corresponding to the OCCI Networkinterface to be created  
|                |     |      | - HTTP Content-Type header is one of the following MIME types:  
|                |     |      |   - text/occi  
|                |     |      |   - text/plain  
|                |     |      |   - application/occi+json  
|                |     |      | - HTTP Body contains the OCCI Networkinterface description  
|                |     |      | - The OCCI Networkinterface description is compliant with the requested MIME type and the OCCI format restrictions  
|                |     |      | - If HTTP Accept header is present it is containing at least one of the following MIME types:  
|                |     |      |   - text/occi  
|                |     |      |   - text/plain  
|                |     |      |   - text/uri-list  
|                |     |      |   - application/occi+json  
|                | 3    | check | OCCI Server sends a HTTP 201 (CREATED) response  
|                |     |      | - HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
|                |     |      | - HTTP Location header contains URL of the created OCCI Resource |
|                | 4    | verify | OCCI Client reports success of create operation and may display URL of created OCCI Networkinterface |
|                | 5    | verify | OCCI Networkinterface has been successfully created by OCCI Server  
|                |     |      | OCCI Compute is linked with OCCI Network |
8 CDMI

This section provides the test descriptions for the different CDMI features.

8.1 Capabilities

8.1.1 Read

8.1.1.1 TD/CDMI/CAPABILITIES/READ/001

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/CAPABILITIES/READ/001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Retrieve root CDMI Capability Object</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 12.1.1</td>
</tr>
<tr>
<td></td>
<td>CDMI - ISO/IEC 17826 [4], clause 12.2</td>
</tr>
</tbody>
</table>

Pre-test conditions:

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests the root CDMI Capability Object from the CDMI Server</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP GET request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Request URI is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&lt;root URI&gt;/cdmi_capabilities/</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>according to clause 12.2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If HTTP Accept header is present it is containing the MIME type application/cdmi-capability</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HTTP Content-Type header is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>application/cdmi-capability</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HTTP Body consists of a JSON object containing the fields defined in clause 12.2.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Field capabilities of JSON object in HTTP Body contains entries according to 12.1.1</td>
</tr>
</tbody>
</table>
|               |      |      | Field children of JSON object in HTTP Body contains entries "domain",
|               |      |      | "container", "dataobject", and "queue" |
|               | 4    | verify | CDMI Client displays all fields of the root CDMI Capability Object |
8.1.1.2 TD/CDMI/CAPABILITIES/READ/002

Interoperability Test Description

Identifier: TD/CDMI/CAPABILITIES/READ/002
Objective: List children of the root CDMI Capability Object
Configuration: CDMI_CFG_01
References: CDMI - ISO/IEC 17826 [4], clause 12.2

Pre-test conditions:

Test Sequence: | Step | Type | Description |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests children of the root CDMI Capability Object from the CDMI Server</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP GET request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/cdmi_capabilities/?children</code> according to clause 12.2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If the client uses pagination the request URI contains a specific range e.g. for the first two children <code>&lt;root URI&gt;/cdmi_capabilities/?children?0:1</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type <code>application/cdmi-capability</code></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is <code>application/cdmi-capability</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing only the children field</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Field children of JSON object in HTTP Body contains the first two children of the root CDMI Capability Object</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays children of root CDMI Capability Object</td>
</tr>
</tbody>
</table>
### 8.1.1.3 TD/CDMI/CAPABILITIES/READ/003

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/CAPABILITIES/READ/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Read capabilities field from existing CDMI Capability Object</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 12.1.1</td>
</tr>
<tr>
<td></td>
<td>CDMI - ISO/IEC 17826 [4], clause 12.2</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td></td>
</tr>
</tbody>
</table>

#### Test Sequence

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests capabilities field of the root CDMI Capability Object from the CDMI Server</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP GET request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/cdmi_capabilities/?capabilities</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type <code>application/cdmi-capability</code></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is <code>application/cdmi-capability</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing only the capabilities field</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Field capabilities of JSON object in HTTP Body contains entries according to clause 12.1.1</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays capabilities of CDMI Server</td>
</tr>
</tbody>
</table>

### 8.1.1.4 TD/CDMI/CAPABILITIES/READ/004

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/CAPABILITIES/READ/004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Retrieve the Capabilities of a CDMI object</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 8.4.1</td>
</tr>
<tr>
<td></td>
<td>CDMI - ISO/IEC 17826 [4], clause 9.4.1</td>
</tr>
<tr>
<td></td>
<td>CDMI - ISO/IEC 17826 [4], clause 10.3.1</td>
</tr>
<tr>
<td></td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.3.1</td>
</tr>
<tr>
<td></td>
<td>CDMI - ISO/IEC 17826 [4], clause 12.1</td>
</tr>
<tr>
<td></td>
<td>CDMI - ISO/IEC 17826 [4], clause 12.2</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Data Object, CDMI Container, CDMI Domain or CDMI Queue</td>
</tr>
<tr>
<td>Test Sequence:</td>
<td>Step</td>
</tr>
<tr>
<td>---------------</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>
|               | 2    | check   | CDMI Client sends a HTTP GET request  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - If HTTP Accept header is present it is containing the MIME type application/cdmi-capability  
  For CDMI Data Object  
  - Request URI is `<root URI>/<ContainerName>/<DataObjectName>?capabilitiesURI` according to clause 8.4.1  
  For CDMI Container Object  
  - Request URI is `<root URI>/<ContainerName>/<TheContainerName>?capabilitiesURI` according to clause 9.4.1  
  For CDMI Domain Object  
  - Request URI is `<root URI>/cdmi_domains/<DomainName>/<TheDomainName>?capabilitiesURI` according to clause 10.3.1  
  For CDMI Queue Object  
  - Request URI is `<root URI>/<ContainerName>/<QueueName>?capabilitiesURI` according to clause 11.3.1 |
|               | 3    | check | CDMI Server sends a HTTP 200 (OK)  
  - HTTP Content-Type header is `application/cdmi-capability`  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Body consists of a JSON object containing only the `capabilitiesURI` field |
|               | 4    | stimulus | CDMI Client uses the capabilities URI to retrieve the CDMI Capability Object for the CDMI object |
|               | 5    | check | CDMI Client sends a HTTP GET request  
  - Request URI is the capabilities URI retrieved in step 1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - If HTTP Accept header is present it is containing the MIME type application/cdmi-capability |
|               | 6    | check | CDMI Server sends a HTTP 200 (OK)  
  - HTTP Content-Type header is `application/cdmi-capability`  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Body consists of a JSON object containing only the capabilities field  
  - Field `capabilities` of JSON object in HTTP Body contains entries according to clause 12.1.2 and 12.1.3  
  - For CDMI Data Object  
    - Field `capabilities` of JSON object in HTTP Body may additionally contain entries according to clause 12.1.4  
  - For CDMI Containers  
    - Field `capabilities` of JSON object in HTTP Body may additionally contain entries according to clause 12.1.5  
  - For CDMI Domains  
    - Field `capabilities` of JSON object in HTTP Body may additionally contain entries according to clause 12.1.6  
  - For CDMI Queues  
    - Field `capabilities` of JSON object in HTTP Body may additionally contain entries according to clause 12.1.7 |
|               | 6    | verify | CDMI Client displays capabilities of CDMI Object |
8.2 Data Objects

8.2.1 Create

8.2.1.1 TD/CDMI/DATA/CREATE/001

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to create a new CDMI Data Object with value &quot;just some test data, can be removed&quot; and metadata &quot;key1&quot;:&quot;value1&quot; and &quot;key2&quot;:&quot;value2&quot;</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If HTTP Header includes X-CDMI-Specification-Version</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CDMI Client creates CDMI Data Object using the CDMI Content Type</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is &lt;root URI&gt;/&lt;&lt;ContainerName&gt;/&lt;&lt;DataObjectName&gt; according to clause 8.2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP X-CDMI-Partial is present it is set to true and the create request continues in another HTTP message</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-object</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type application/cdmi-object</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If HTTP Header does not include X-CDMI-Specification-Version</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CDMI Client creates CDMI Data Object using non-CDMI Content Type</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header includes the MIME type of the data object to be created. It may include the charset of the data object (e.g. ;charset=utf-8 or ;charset=base64) as specified in RFC 2046 [i.1]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP X-CDMI-Partial is present it is set to true and the create request continues in another HTTP message</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HTTP Body consists of a JSON object containing the fields defined in clause 8.2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The value field of the JSON object in the HTTP Body contains the contents of the CDMI Data Object to be created e.g.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>{</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;mimetype&quot;: &quot;text/plain&quot;,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;metadata&quot;: {</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;key1&quot;: &quot;value1&quot;,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;key2&quot;: &quot;value2&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>},</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;value&quot;: &quot;just some test data, can be removed&quot;</td>
</tr>
</tbody>
</table>
|      |         | }
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 3 | check | If Request HTTP Header included X-CDMI-Specification-Version CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)  
• HTTP Content-Type header is application/cdmi-container  
• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
• HTTP Body consists of a JSON object containing the fields defined in clause 9.2.7  
• If HTTP status code is 201  
  o Field completionStatus of JSON object in HTTP Body is Complete  
• If HTTP status code is 202  
  o Field completionStatus of JSON object in HTTP Body is Processing  
  Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100 |
| 4 | verify | If CDMI Server sends HTTP 201 status code  
• CDMI Client reports success of create operation  
If CDMI Server sends HTTP 202 status code  
• CDMI Client reports delayed completion of create operation |
| 5 | verify | CDMI Server has successfully created data object |
### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/DATA/CREATE/002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create a reference to an existing CDMI Data Object</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 8.2</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Container with capability cdmi_create_reference</td>
</tr>
<tr>
<td></td>
<td>Existing CDMI Data Object</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to create a reference to an existing CDMI Data Object</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;DataObjectName&gt;</code> according to clause 8.2.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP X-CDMI-Partial is present it is set to true and the create request continues in another HTTP message</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-object</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type application/cdmi-object</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing the fields defined in clause 8.2.5.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>o Field reference contains the URI of an existing CDMI Data Object</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-object</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing the fields defined in clause 8.2.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>o Field completionStatus of JSON object in HTTP Body is Complete</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>o If HTTP status code is 202</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>If CDMI Server sends HTTP 201 status code</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CDMI Client reports success of create reference operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>If CDMI Server sends HTTP 202 status code</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CDMI Client reports delayed completion of create reference operation</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td>CDMI Server has successfully created a reference to an existing CDMI Data Object</td>
<td></td>
</tr>
</tbody>
</table>
## Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/DATA/CREATE/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Copy an existing CDMI Data Object or CDMI Queue to a new OCCI Data Object</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 8.2</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Container with capability cdmi_copy_dataobject</td>
</tr>
<tr>
<td></td>
<td>Existing CDMI Data Object or CDMI Queue</td>
</tr>
</tbody>
</table>

**Test Sequence:**

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to copy an existing CDMI Data Object or CDMI Queue into a new CDMI Data Object</td>
</tr>
</tbody>
</table>
| 2    | check   | CDMI Client sends a HTTP PUT request  
        |         | • Request URI is `<root URI>/<ContainerName>/<DataObjectName>` according to clause 8.2.1  
        |         | • HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
        |         | • If HTTP X-CDMI-Partial is present it is set to true and the create request continues in another HTTP message  
        |         | • HTTP Content-Type header is `application/cdmi-object`  
        |         | • If HTTP Accept header is present it is containing the MIME type `application/cdmi-object`  
        |         | • HTTP Body consists of a JSON object containing the fields defined in clause 8.2.5. The copy field contains the URI of a CDMI Data Object or queue |
| 3    | check   | CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)  
        |         | • HTTP Content-Type header is `application/cdmi-object`  
        |         | • HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
        |         | • HTTP Body consists of a JSON object containing the fields defined in clause 8.2.7  
        |         | • If HTTP status code is 201:  
        |         |   • Field completionStatus of JSON object in HTTP Body is Complete  
        |         | • If HTTP status code is 202:  
        |         |   • Field completionStatus of JSON object in HTTP Body is Processing  
        |         |   • Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100 |
| 4    | verify  | If CDMI Server sends HTTP 201 status code  
        |         | • CDMI Client reports success of copy operation  
        |         | If CDMI Server sends HTTP 202 status code  
        |         | • CDMI Client reports delayed completion of copy operation |
| 5    | verify  | CDMI Server has successfully copied CDMI Data Object or queue |
### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/DATA/CREATE/004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Move a CDMI Data Object</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 8.2</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Container with capability cdmi_move_dataobject</td>
</tr>
</tbody>
</table>

#### Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to move a CDMI Data Object</td>
</tr>
</tbody>
</table>
| 2    | check  | CDMI Client sends a HTTP PUT request  
  - Request URI is `<root URI>/<ContainerName>/<DataObjectName>` according to clause 8.2.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - If HTTP X-CDMI-Partial is present it is set to true and the create request continues in another HTTP message  
  - HTTP Content-Type header is `application/cdmi-object`  
  - If HTTP Accept header is present it is containing the MIME type `application/cdmi-object`  
  - HTTP Body consists of a JSON object containing the fields defined in clause 8.2.5. The move field contains the URI of a CDMI Data Object |
| 3    | check  | CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)  
  - HTTP Content-Type header is `application/cdmi-object`  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Body consists of a JSON object containing the fields defined in clause 8.2.7  
  - If HTTP status code is 201:  
    - Field completionStatus of JSON object in HTTP Body is Complete  
  - If HTTP status code is 202:  
    - Field completionStatus of JSON object in HTTP Body is Processing  
    - Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100 |
| 4    | verify | If CDMI Server sends HTTP 201 status code  
  - CDMI Client reports success of move operation  
  If CDMI Server sends HTTP 202 status code  
  - CDMI Client reports delayed completion of move operation |
| 5    | verify | CDMI Server has successfully moved CDMI Data Object |
## Interoperability Test Description

**Identifier:** TD/CDMI/DATA/CREATE/005  
**Objective:** Create a new CDMI Data Object by deserializing an existing CDMI Data Object  
**Configuration:** CDMI_CFG_01  
**References:** CDMI - ISO/IEC 17826 [4], clause 8.2  
**Pre-test conditions:** Existing CDMI Container with capability cdmi_deserialize_dataobject  
Existing CDMI Data Object containing the serialization of a CDMI Data Object

### Test Sequence

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1 | stimulus | CDMI Client requests CDMI Server to deserialize a serialized CDMI Data Object  
   - Request URI is `<root URI>/<ContainerName>/<DataObjectName>` according to clause 8.2.1  
   - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
   - If HTTP X-CDMI-Partial is present it is set to true and the create request continues in another HTTP message  
   - HTTP Content-Type header is `application/cdmi-object`  
   - If HTTP Accept header is present it is containing the MIME type `application/cdmi-object`  
   - HTTP Body consists of a JSON object containing the fields defined in clause 8.2.5. The deserialize field contains the URI of the serialized CDMI Data Object |
| 2 | check | CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)  
   - HTTP Content-Type header is `application/cdmi-object`  
   - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
   - HTTP Body consists of a JSON object containing the fields defined in clause 8.2.7  
   - If HTTP status code is 201:  
     - Field completionStatus of JSON object in HTTP Body is Complete  
   - If HTTP status code is 202:  
     - Field completionStatus of JSON object in HTTP Body is Processing  
     - Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100 |
| 3 | check | CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)  
   - HTTP Content-Type header is `application/cdmi-object`  
   - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
   - HTTP Body consists of a JSON object containing the fields defined in clause 8.2.7  
   - If HTTP status code is 201:  
     - Field completionStatus of JSON object in HTTP Body is Complete  
   - If HTTP status code is 202:  
     - Field completionStatus of JSON object in HTTP Body is Processing  
     - Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100 |
| 4 | verify | If CDMI Server sends HTTP 201 status code  
   - CDMI Client reports success of deserialized operation  
   - CDMI Client sends HTTP 202 status code  
   - CDMI Client reports delayed completion of deserialized operation |
| 5 | verify | CDMI Server has successfully deserialized CDMI Data Object |
# Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/DATA/CREATE/006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create a new CDMI Data Object by serializing an existing CDMI object</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>ISO/IEC 17826 [4], clause 8.2</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Container with capability cdmi_serialize_dataobject, cdmi_serialize_container, cdmi_serialize_domain, or cdmi_serialize_queue. Existing CDMI Data Object, CDMI Container, CDMI Domain or CDMI Queue</td>
</tr>
</tbody>
</table>

## Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to serialize the existing CDMI Data Object, CDMI Container, CDMI Domain or CDMI Queue into a CDMI Data Object.</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;DataObjectName&gt;</code> according to clause 8.2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP X-CDMI-Partial is present it is set to true and the create request continues in another HTTP message.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Content-Type header is <code>application/cdmi-object</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing the MIME type <code>application/cdmi-object</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing the fields defined in clause 8.2.5. The serialize field contains the URI of the CDMI Data Object, CDMI Container, CDMI Domain or CDMI Queue.</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED):</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Content-Type header is <code>application/cdmi-object</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing the fields defined in clause 8.2.7.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP status code is 201:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Field completionStatus of JSON object in HTTP Body is Complete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP status code is 202:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Field completionStatus of JSON object in HTTP Body is Processing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>If CDMI Server sends HTTP 201 status code:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- CDMI Client reports success of serialize operation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If CDMI Server sends HTTP 202 status code:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- CDMI Client reports delayed completion of serialize operation</td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td>CDMI Server has successfully serialized CDMI Data Object, CDMI Container, CDMI Domain or CDMI Queue.</td>
</tr>
</tbody>
</table>
### 8.2.2 Read

#### 8.2.2.1 TD/CDMI/DATA/READ/001

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to describe CDMI Data Object</td>
</tr>
</tbody>
</table>
| 2    | check   | CDMI Client sends a HTTP GET request  
  - Request URI is `<root URI>/<ContainerName>/<DataObjectName>` according to clause 8.4.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - If HTTP Accept header is present it is containing the MIME type `application/cdmi-object` |
| 3    | check   | CDMI Server sends a HTTP 200 (OK) or HTTP 202 (ACCEPTED)  
  - HTTP Content-Type header is `application/cdmi-object`  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Body consists of a JSON object containing the fields defined in clause 8.4.6  
  - If HTTP status code is 202:  
    - Field completionStatus of JSON object in HTTP Body is Processing  
    - Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100 |
| 4    | verify  | CDMI Client displays all fields of the CDMI Data Object |
### Interoperability Test Description

**Identifier:** TD/CDMI/DATA/READ/002  
**Objective:** Read metadata from existing CDMI Data Object  
**Configuration:** CDMI_CFG_01  
**References:**  
CDMI - ISO/IEC 17826 [4], clause 8.4  
CDMI - ISO/IEC 17826 [4], clause 16  
**Pre-test conditions:** Existing CDMI Data Object with capability cdmi_read_metadata

#### Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1 | stimulus | CDMI Client requests metadata of the CDMI Data Object from CDMI Server  
  - Request URI is `<root URI>/<ContainerName>/<DataObjectName>?metadata` according to clause 8.4.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - If HTTP Accept header is present it is containing the MIME type `application/cdmi-object`
| 2 | check | CDMI Client sends a HTTP GET request  
  - HTTP Content-Type header is `application/cdmi-object`  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Body consists of a JSON object containing only the metadata field  
  - Field metadata of JSON object in HTTP Body contains entries according to clause 16
| 3 | check | CDMI Server sends a HTTP 200 (OK)  
  - HTTP Content-Type header is `application/cdmi-object`  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Body consists of a JSON object containing only the metadata field  
  - Field metadata of JSON object in HTTP Body contains entries according to clause 16
| 4 | verify | CDMI Client displays metadata of the CDMI Data Object |
### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/DATA/READ/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Read value from existing CDMI Data Object</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 8.4</td>
</tr>
<tr>
<td></td>
<td>CDMI - ISO/IEC 17826 [4], clause 8.5</td>
</tr>
</tbody>
</table>

#### Pre-test conditions:
Existing CDMI Data Object with capability cdmi_read_value

#### Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client sends a HTTP GET request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP header includes X-CDMI-Specification-Version:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o CDMI Client requests the CDMI Data Object with CDMI Content Type</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;DataObjectName&gt;?value</code> according to clause 8.4.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o If HTTP Accept header is present it is containing the MIME type application/cdmi-object</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP header does not include X-CDMI-Specification-Version:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o CDMI Client requests the CDMI Data Object with non-CDMI Content Type</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client displays value of the CDMI Data Object</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If Request HTTP Header contains X-CDMI-Specification-Version:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP Content-Type header is application/cdmi-object</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP Body consists of a JSON object containing only the value field according to clause 8.4.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If Request HTTP Header does not contain X-CDMI-Specification-Version:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP Header Content-Type corresponds to the mimetype field in the data object according to clause 8.5.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP Header Location is the URI that the reference redirects to if the CDMI Data Object is a reference according to clause 8.5.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP Body contains the value of the CDMI Data Object according to clause 8.5.6</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays value of the CDMI Data Object</td>
</tr>
</tbody>
</table>
### 8.2.2.4 TD/CDMI/DATA/READ/004

#### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/DATA/READ/004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Read first 10 bytes from the value of an existing CDMI Data Object</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 8.4</td>
</tr>
<tr>
<td></td>
<td>CDMI - ISO/IEC 17826 [4], clause 8.5</td>
</tr>
<tr>
<td></td>
<td>RFC 2616 [i.2], clause 14.35.1</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Data Object with capability cdmi_read_value_range</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests first 10 bytes from the value of an existing CDMI Data Object from CDMI Server</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP GET request</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP header includes X-CDMI-Specification-Version:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;DataObjectName&gt;?value:0-9</code> according to clause 8.4.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o If HTTP Accept header is present it is containing the MIME type <code>application/cdmi-object</code></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP header does not include X-CDMI-Specification-Version:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o CDMI Client requests the CDMI Data Object using a non-CDMI content type</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP header Range is 0-9 according to clause 14.35.1 of RFC 2616 [i.2]</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If Request HTTP Header contains X-CDMI-Specification-Version:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP Content-Type header is <code>application/cdmi-object</code></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP Body consists of a JSON object containing only the value field according to clause 8.4.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Field value of JSON object in HTTP Body contains the first 10 bytes from the value of the CDMI Data Object</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If Request HTTP Header does not contain X-CDMI-Specification-Version:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP Header Content-Type is the mimetype field in the data object according to clause 8.5.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP Header Location is the URI that the reference redirects to if the CDMI Data Object is a reference according to clause 8.5.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o HTTP Body contains the first 10 bytes from the value of the CDMI Data Object according to clause 8.5.6</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays first 10 bytes from the value of the CDMI Data Object</td>
<td></td>
</tr>
</tbody>
</table>
8.2.3 Update

8.2.3.1 TD/CDMI/DATA/UPDATE/001

Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/DATA/UPDATE/001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Modify an existing CDMI Data Object</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 8.6</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Data Object</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to update CDMI Data Object</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Request URI is &lt;root URI&gt;/&lt;ContainerName&gt;/&lt;DataObjectName&gt; according to clause 8.6.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type application/cdmi-object</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If HTTP X-CDMI-Partial is present it is set to true and the create request continues in another HTTP message</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-object</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing the fields defined in clause 8.6.4</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 204 (NO CONTENT)</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays success of update operation</td>
</tr>
</tbody>
</table>

8.2.3.2 TD/CDMI/DATA/UPDATE/002

Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/DATA/UPDATE/002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Modify the metadata of an existing CDMI Data Object</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 8.6</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Data Object with capability cdmi_modify_metadata</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to update metadata of an existing CDMI Data Object</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Request URI is &lt;root URI&gt;/&lt;ContainerName&gt;/&lt;DataObjectName&gt;?metadata according to clause 8.6.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type application/cdmi-object</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-object</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing only the metadata field as defined in clause 8.6.4</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 204 (NO CONTENT)</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays success of update operation</td>
</tr>
</tbody>
</table>
8.2.3.3 TD/CDMI/DATA/UPDATE/003

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>TD/CDMI/DATA/UPDATE/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Modify the value of an existing CDMI Data Object</td>
</tr>
<tr>
<td>Configuration</td>
<td>CDMI_CFG_01</td>
</tr>
</tbody>
</table>
| References            | CDMI - ISO/IEC 17826 [4], clause 8.6  
                        | CDMI - ISO/IEC 17826 [4], clause 8.7 |
| Pre-test conditions   | Existing CDMI Data Object with capability cdmi_modify_value |

**Test Sequence:**

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to update value of an existing CDMI Data Object</td>
</tr>
</tbody>
</table>
| 2    | check  | CDMI Client sends a HTTP PUT request  
     | If HTTP Header includes X-CDMI-Specification-Version:  
     |   • CDMI Client updates CDMI Data Object using CDMI Content Type  
     |   • Request URI is  
     |     <root URI>/<ContainerName>/<DataObjectName>?value  
     |     according to clause 8.6.1  
     |   • HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
     |   • If HTTP X-CDMI-Partial is present it is set to true and the update request continues in another HTTP message  
     |   • If HTTP Accept header is present it is containing the MIME type application/cdmi-object  
     |   • HTTP Content-Type header is application/cdmi-object  
     |   • HTTP Body consists of a JSON object containing only the value field as defined in clause 8.6.4  
     | If HTTP Header does not include X-CDMI-Specification-Version:  
     |   • CDMI Client updates CDMI Data Object using non-CDMI Content Type  
     |   • HTTP Content-Type header includes the MIME type of the data object to be updated. It may include the charset of the data object (e.g. ;charset=utf-8 or ;charset=base64) as specified in RFC 2046 [i.1]  
     |   • If HTTP X-CDMI-Partial is present it is set to true and the update request continues in another HTTP message  
     |   • HTTP Body contains the contents of the CDMI Data Object to be created |
| 3    | check  | CDMI Server sends a HTTP 204 (NO CONTENT) |
| 4    | verify | CDMI Client displays success of update operation |
8.2.3.4 TD/CDMI/DATA/UPDATE/004

Interoperability Test Description

Identifier: TD/CDMI/DATA/UPDATE/004
Objective: Modify the first 10 bytes of the value of an existing CDMI Data Object
Configuration: CDMI_CFG_01
References: CDMI - ISO/IEC 17826 [4], clause 8.6
CDMI - ISO/IEC 17826 [4], clause 8.7
Pre-test conditions: Existing CDMI Data Object with capability cdm_modify_value_range

Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to update first 10 bytes of the value of an existing CDMI Data Object</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If HTTP Header includes X-CDMI-Specification-Version:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CDMI Client updates CDMI Data Object using CDMI Content Type</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;DataObjectName&gt;?value:0-9</code> according to clause 8.6.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP X-CDMI-Partial is present it is set to true and the update request continues in another HTTP message</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type application/cdmi-object</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-object</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object as defined in clause 8.6.4 and contains value for the first 10 bytes of the CDMI Data Object which is to be updated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If HTTP Header does not include X-CDMI-Specification-Version:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CDMI Client updates CDMI Data Object using non-CDMI Content Type</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header includes the MIME type of the data object to be updated. It may include the charset of the data object (e.g. ;charset=utf-8 or ;charset=base64) as specified in RFC 2046 [i.1]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP X-CDMI-Partial is present it is set to true and the update request continues in another HTTP message</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body contains the a value for the first 10 bytes of the CDMI Data Object which is to be updated</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 204 (NO CONTENT)</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays success of update operation</td>
</tr>
</tbody>
</table>

8.2.4 Delete

8.2.4.1 TD/CDMI/DATA/DELETE/001

Interoperability Test Description

Identifier: TD/CDMI/DATA/DELETE/001
Objective: Delete an existing CDMI Data Object
Configuration: CDMI_CFG_01
References: CDMI - ISO/IEC 17826 [4], clause 8.8
CDMI - ISO/IEC 17826 [4], clause 8.9
Pre-test conditions: Existing CDMI Data Object with capability cdm_delete_dataobject

Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to delete the CDMI Data Object</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP DELETE request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;DataObjectName&gt;</code> according to clause 8.8.1</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 204 (NO CONTENT)</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays success of delete operation</td>
</tr>
</tbody>
</table>
# 8.3 Container Objects

## 8.3.1 Create

### 8.3.1.1 TD/CDMI/CONTAINER/CREATE/001

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to create a new CDMI Container</td>
</tr>
</tbody>
</table>
| 2    | check | CDMI Client sends a HTTP PUT request  
  • If HTTP Header includes X-CDMI-Specification-Version:  
    o CDMI Client creates CDMI Container using the CDMI Content Type  
    o Request URI is `<root URI>/<ContainerName>/<NewContainerName>` according to clause 9.2.1  
    o HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
    o HTTP Content-Type header is application/cdmi-container  
    o If HTTP Accept header is present it is containing the MIME type application/cdmi-container  
    o HTTP Body consists of a JSON object containing the fields defined in clause 9.2.5 |
| 3    | check | If Request HTTP Header includes X-CDMI-Specification-Version CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)  
  • HTTP Content-Type header is application/cdmi-container  
  • HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
  • HTTP Body consists of a JSON object containing the fields defined in clause 9.2.7  
  • If HTTP status code is 201:  
    o Field completionStatus of JSON object in HTTP Body is Complete  
  • If HTTP status code is 202:  
    o Field completionStatus of JSON object in HTTP Body is Processing  
    o Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100 |
| 4    | verify | If CDMI Server sends HTTP 201 status code  
  • CDMI Client reports success of create operation  
 If CDMI Server sends HTTP 202 status code  
  • CDMI Client reports delayed completion of create operation |
| 5    | verify | CDMI Server has successfully created CDMI Container |
8.3.1.2 TD/CDMI/CONTAINER/CREATE/002

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to create a reference to an existing CDMI Container</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;NewContainerName&gt;</code> according to clause 9.2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Content-Type header is application/cdmi-container</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing the MIME type application/cdmi-container</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing the fields defined in clause 9.2.5. The reference field contains the URI of a CDMI Container</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>check</td>
<td>CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Content-Type header is application/cdmi-container</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing the fields defined in clause 9.2.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- If HTTP status code is 201:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Field completionStatus of JSON object in HTTP Body is Complete</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- If HTTP status code is 202:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Field completionStatus of JSON object in HTTP Body is Processing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>verify</td>
<td>If CDMI Server sends HTTP 201 status code</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- CDMI Client reports success of create reference operation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If CDMI Server sends HTTP 202 status code</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- CDMI Client reports delayed completion of create reference operation</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>verify</td>
<td>CDMI Server has successfully created reference to CDMI Container</td>
</tr>
</tbody>
</table>
### Interoperability Test Description

**Identifier:** TD/CDMI/CONTAINER/CREATE/003  
**Objective:** Copy a CDMI Container  
**Configuration:** CDMI_CFG_01  
**References:** CDMI - ISO/IEC 17826 [4], clause 9.2  
**Pre-test conditions:** Existing CDMI Container with capability cdmi_copy_container  

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to copy an existing CDMI Container</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;&gt;/&lt;ContainerName&gt;/&lt;NewContainerName&gt;</code> according to clause 9.2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-container</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type application/cdmi-container</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing the fields defined in clause 9.2.5. The copy field contains the URI of an existing CDMI Container</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-container</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing the fields defined in clause 9.2.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If HTTP status code is 201:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>o Field completionStatus of JSON object in HTTP Body is Complete</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If HTTP status code is 202:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>o Field completionStatus of JSON object in HTTP Body is Processing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>o Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>verify</td>
<td>If CDMI Server sends HTTP 201 status code</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• CDMI Client reports success of copy operation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If CDMI Server sends HTTP 202 status code</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• CDMI Client reports delayed completion of copy operation</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>verify</td>
<td>CDMI Server has successfully copied CDMI Container</td>
</tr>
</tbody>
</table>
### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/CONTAINER/CREATE/004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Move an existing CDMI Container</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 9.2</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Container with capability cdmi_move_container</td>
</tr>
</tbody>
</table>

#### Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to move an existing CDMI Container</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;NewContainerName&gt;</code> according to clause 9.2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Content-Type header is <code>application/cdmi-container</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing the MIME type <code>application/cdmi-container</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing the fields defined in clause 9.2.5. The move field contains the URI of an existing CDMI Container</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Content-Type header is <code>application/cdmi-container</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing the fields defined in clause 9.2.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP status code is 201</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Field completionStatus of JSON object in HTTP Body is Complete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP status code is 202</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Field completionStatus of JSON object in HTTP Body is Processing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>If CDMI Server sends HTTP 201 status code</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- CDMI Client reports success of move operation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If CDMI Server sends HTTP 202 status code</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- CDMI Client reports delayed completion of move operation</td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td>CDMI Server has successfully moved CDMI Container</td>
</tr>
</tbody>
</table>
### 8.3.1.5 TD/CDMI/CONTAINER/CREATE/005

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/CONTAINER/CREATE/005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create a new CDMI Container by deserializing an existing CDMI Data Object</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 9.2</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Container with capability cdmi_deserialize_container</td>
</tr>
</tbody>
</table>

#### Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to deserialize an existing CDMI Data Object into a new CDMI Container</td>
</tr>
</tbody>
</table>
| 2    | check | CDMI Client sends a HTTP PUT request  
  - Request URI is `<root URI>/<ContainerName>/<NewContainerName>` according to clause 9.2.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Content-Type header is `application/cdmi-container`  
  - If HTTP Accept header is present it is containing the MIME type `application/cdmi-container`  
  - HTTP Body consists of a JSON object containing the fields defined in clause 9.2.5. The deserialize field contains the URI of an existing CDMI Data Object |
| 3    | check | CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)  
  - HTTP Content-Type header is `application/cdmi-container`  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Body consists of a JSON object containing the fields defined in clause 9.2.7  
  - If HTTP status code is 201:  
    - Field completionStatus of JSON object in HTTP Body is Complete  
  - If HTTP status code is 202:  
    - Field completionStatus of JSON object in HTTP Body is Processing  
    - Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100 |
| 4    | verify | If CDMI Server sends HTTP 201 status code  
  - CDMI Client reports success of deserialize operation  
  If CDMI Server sends HTTP 202 status code  
  - CDMI Client reports delayed completion of deserialize operation |
| 5    | verify | CDMI Server has successfully deserialized CDMI Data Object into CDMI Container |
8.3.2 Read

8.3.2.1 TD/CDMI/CONTAINER/READ/001

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to describe CDMI Container</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP GET request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;TheContainerName&gt;</code> according to clause 9.4.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP <code>X-CDMI-Specification-Version</code> contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP <code>Accept</code> header is present it is containing the MIME type <code>application/cdmi-container</code></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK) or HTTP 202 (ACCEPTED)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP <code>Content-Type</code> header is <code>application/cdmi-container</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP <code>X-CDMI-Specification-Version</code> contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing the fields defined in clause 9.4.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP status code is 202:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Field <code>completionStatus</code> of JSON object in HTTP Body is <code>Processing</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Field <code>percentComplete</code> of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays all fields of the CDMI Container</td>
</tr>
</tbody>
</table>

8.3.2.2 TD/CDMI/CONTAINER/READ/002

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests metadata of the CDMI Container from CDMI Server</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP GET request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;TheContainerName&gt;?metadata</code> according to clause 9.4.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP <code>X-CDMI-Specification-Version</code> contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP <code>Accept</code> header is present it is containing the MIME type <code>application/cdmi-container</code></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK) or HTTP 202 (ACCEPTED)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP <code>Content-Type</code> header is <code>application/cdmi-container</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP <code>X-CDMI-Specification-Version</code> contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing only the metadata field as defined in clause 9.4.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Field metadata of JSON object in HTTP Body contains entries according to clause 16</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays metadata of the CDMI Container</td>
</tr>
</tbody>
</table>
### 8.3.2.3 TD/CDMI/CONTAINER/READ/003

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>TD/CDMI/CONTAINER/READ/003</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong></td>
<td>List children of an existing CDMI Container</td>
</tr>
<tr>
<td><strong>Configuration:</strong></td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td><strong>References:</strong></td>
<td>CDMI - ISO/IEC 17826 [4], clause 9.4</td>
</tr>
<tr>
<td><strong>Pre-test conditions:</strong></td>
<td>Existing CDMI Container with capability cdmi_list_children</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests list of children of the CDMI Container from CDMI Server</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP GET request</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;TheContainerName&gt;?children</code> according to clause 9.4.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing the MIME type application/cdmi-container</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK) or HTTP 202 (ACCEPTED)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Content-Type header is application/cdmi-container</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing only the children field as defined in clause 9.4.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Field children of JSON object in HTTP Body contains a JSON Array with the names of all children of the CDMI Container</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays list of children of the CDMI Container</td>
<td></td>
</tr>
</tbody>
</table>

---

### 8.3.2.4 TD/CDMI/CONTAINER/READ/004

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>TD/CDMI/CONTAINER/READ/004</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong></td>
<td>List first 2 children of an existing CDMI Container</td>
</tr>
<tr>
<td><strong>Configuration:</strong></td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td><strong>References:</strong></td>
<td>CDMI - ISO/IEC 17826 [4], clause 9.4</td>
</tr>
<tr>
<td><strong>Pre-test conditions:</strong></td>
<td>Existing CDMI Container with capability cdmi_list_children_range</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests first two children of the CDMI Container from CDMI Server</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP GET request</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;TheContainerName&gt;?children:0-2</code> according to clause 9.4.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing the MIME type application/cdmi-container</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK) or HTTP 202 (ACCEPTED)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Content-Type header is application/cdmi-container</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing only the children field as defined in clause 9.4.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Field children of JSON object in HTTP Body contains a JSON Array with the first two children of the CDMI Container</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays first two children of the CDMI Container</td>
<td></td>
</tr>
</tbody>
</table>
8.3.3 Update

8.3.3.1 TD/CDMI/CONTAINER/UPDATE/001

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>stimulus</td>
<td>CDMI Client sends a HTTP PUT request to update CDMI Container</td>
</tr>
</tbody>
</table>
| **2** | check | CDMI Client sends HTTP PUT request  
  - Request URI is `<root URI>/<ContainerName>/< TheContainerName >` according to clause 9.5.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - If HTTP Accept header is present it is containing the MIME type `application/cdmi-container`  
  - HTTP Content-Type header is `application/cdmi-container`  
  - HTTP Body consists of a JSON object containing the fields defined in clause 9.5.5 |
| **3** | check | CDMI Server sends HTTP 202 (ACCEPTED) or HTTP 204 (NO CONTENT) |
| **4** | verify | CDMI Client displays success of update operation |

8.3.3.2 TD/CDMI/CONTAINER/UPDATE/002

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to update metadata of CDMI Container</td>
</tr>
</tbody>
</table>
| **2** | check | CDMI Client sends a HTTP PUT request  
  - Request URI is `<root URI>/<ContainerName>/< TheContainerName >?metadata` according to clause 9.5.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - If HTTP Accept header is present it is containing the MIME type `application/cdmi-container`  
  - HTTP Content-Type header is `application/cdmi-container`  
  - HTTP Body consists of a JSON object containing only the metadata field as defined in clause 9.5.5 |
| **3** | check | CDMI Server sends HTTP 202 (ACCEPTED) or HTTP 204 (NO CONTENT) |
| **4** | verify | CDMI Client displays success of update operation |
### 8.3.3.3 TD/CDMI/CONTAINER/UPDATE/003

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/CONTAINER/UPDATE/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create a snapshot of the contents of an existing CDMI Container</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 9.5</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Container with capability cdmi_snapshot</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to snapshot the contents of the CDMI Container</td>
<td></td>
</tr>
</tbody>
</table>
| 2              | check   | CDMI Client sends a HTTP PUT request  
|                |         | • Request URI is  
|                |         | <root URI>/<ContainerName>/< TheContainerName >  
|                |         | according to clause 9.5.1  
|                |         | • HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
|                |         | • If HTTP Accept header is present it is containing the MIME type application/cdmi-container  
|                |         | • HTTP Content-Type header is application/cdmi-container  
|                |         | • HTTP Body consists of a JSON object contains the snapshot field with the name of the snapshot as defined in clause 9.5.5 |
| 3              | check   | CDMI Server sends HTTP 202 (ACCEPTED) or HTTP 204 (NO CONTENT) |
| 4              | verify  | CDMI Client displays success of snapshot operation |

### 8.3.3.4 TD/CDMI/CONTAINER/UPDATE/004

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/CONTAINER/UPDATE/004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Add an export protocol to an existing CDMI Container</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
</tbody>
</table>
| References: | CDMI - ISO/IEC 17826 [4], clause 9.5  
|              | CDMI - ISO/IEC 17826 [4], clause 13 |
| Pre-test conditions: | Existing CDMI Container with capability cdmi_export_nfs, cdmi_export_cifs, cdmi_export_occi, cdmi_export_iscsi or cdmi_export_webdav |

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to add NFS, CIFS, OCCI, iSCSI or WebDAV as export protocol to the CDMI Container</td>
<td></td>
</tr>
</tbody>
</table>
| 2              | check   | CDMI Client sends a HTTP PUT request  
|                |         | • Request URI is  
|                |         | <root URI>/<ContainerName>/< TheContainerName >  
|                |         | according to clause 9.5.1  
|                |         | • HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
|                |         | • If HTTP Accept header is present it is containing the MIME type application/cdmi-container  
|                |         | • HTTP Content-Type header is application/cdmi-container  
|                |         | • HTTP Body consists of a JSON object which contains the exports field with information on each enabled export protocol as defined in clause 13 |
| 3              | check   | CDMI Server sends HTTP 202 (ACCEPTED) or HTTP 204 (NO CONTENT) |
| 4              | verify  | CDMI Client displays success of adding export protocol |
8.3.4 Delete

8.3.4.1 TD/CDMI/CONTAINER/DELETE/001

<table>
<thead>
<tr>
<th>Interoperability Test Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifier: TD/CDMI/CONTAINER/DELETE/001</td>
</tr>
<tr>
<td>Objective: Delete an existing CDMI Container</td>
</tr>
<tr>
<td>Configuration: CDMI_CFG_01</td>
</tr>
<tr>
<td>References: CDMI - ISO/IEC 17826 [4], clause 9.6</td>
</tr>
<tr>
<td>Pre-test conditions: Existing CDMI Container with capability cdmi_delete_container</td>
</tr>
<tr>
<td>Test Sequence:</td>
</tr>
<tr>
<td>Step</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
</tbody>
</table>

8.4 Domain Objects

8.4.1 Create

8.4.1.1 TD/CDMI/DOMAIN/CREATE/001

<table>
<thead>
<tr>
<th>Interoperability Test Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifier: TD/CDMI/DOMAIN/CREATE/001</td>
</tr>
<tr>
<td>Objective: Create a new CDMI Domain</td>
</tr>
<tr>
<td>Configuration: CDMI_CFG_01</td>
</tr>
<tr>
<td>References: CDMI - ISO/IEC 17826 [4], clause 10.2</td>
</tr>
<tr>
<td>Pre-test conditions: Existing CDMI Domain with capability cdmi_create_domain</td>
</tr>
<tr>
<td>Test Sequence:</td>
</tr>
<tr>
<td>Step</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>
### 8.4.1.2 TD/CDMI/DOMAIN/CREATE/002

<table>
<thead>
<tr>
<th>Identifier</th>
<th>TD/CDMI/DOMAIN/CREATE/002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Copy an existing CDMI Domain</td>
</tr>
<tr>
<td>Configuration</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References</td>
<td>CDMI - ISO/IEC 17826 [4], clause 10.2</td>
</tr>
<tr>
<td>Pre-test conditions</td>
<td>Existing CDMI Domain with capability cdmi_copy_domain</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to copy a CDMI Domain</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If HTTP Header includes X-CDMI-Specification-Version</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• CDMI Client creates CDMI Container using CDMI Content Type</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Request URI is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&lt;root URI/cdmi_domains/&lt;DomainName&gt;/&lt;NewDomainName&gt;/</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>according to clause 10.2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-domain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type application/cdmi-domain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing the copy field with the URI of the CDMI Domain to be copied as defined in clause 10.2.4</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>check</td>
<td>CDMI Server sends HTTP 201 (CREATED)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-domain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing the fields defined in clause 10.2.6</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>verify</td>
<td>CDMI Client reports success of copy operation</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>verify</td>
<td>CDMI Server has successfully copied CDMI Domain</td>
</tr>
</tbody>
</table>
### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/DOMAIN/CREATE/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create a new CDMI Domain by deserializing an existing CDMI Data Object</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI: CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 10.2</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Data Object containing the serialization of a CDMI Domain Existing CDMI Domain with capability cdmi_deserialize_domain</td>
</tr>
<tr>
<td>Test Sequence:</td>
<td>Step</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1</td>
<td>stimulus</td>
</tr>
</tbody>
</table>
| 2 | check | | CDMI Client sends a HTTP PUT request if HTTP Header includes X-CDMI-Specification-Version  
  - CDMI Client creates CDMI Container using CDMI Content Type  
  - Request URI is <root URI/cdmi_domains/<DomainName>/<NewDomainName>/ according to clause 10.2.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Content-Type header is application/cdmi-domain  
  - If HTTP Accept header is present it is containing the MIME type application/cdmi-domain  
  - HTTP Body consists of a JSON object containing the deserialize field with the URI of the CDMI Data Object to be deserialized as defined in clause 10.2.4 |
| 3 | check | CDMI Server sends HTTP 201 (CREATED)  
  - HTTP Content-Type header is application/cdmi-domain  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Body consists of a JSON object containing the fields defined in clause 10.2.6 |
| 4 | verify | CDMI Client reports success of deserialize operation |
| 5 | verify | CDMI Server has successfully deserialized CDMI Data Object into CDMI Domain |
8.4.2 Read

8.4.2.1 TD/CDMI/DOMAIN/READ/001

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/DOMAIN/READ/001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Read all fields from existing CDMI Domain</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 10.3</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Domain</td>
</tr>
</tbody>
</table>

**Test Sequence:**

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to describe CDMI Domain</td>
</tr>
</tbody>
</table>
| 2    | check   | CDMI Client sends a HTTP GET request  
  - Request URI is  
    `<root URI>/cdmi_domains/<DomainName>/<TheDomainName>/?metadata`  
    according to clause 10.3.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - If HTTP Accept header is present it is containing the MIME type `application/cdmi-domain` |
| 3    | check   | CDMI Server sends a HTTP 200 (OK)  
  - HTTP Content-Type header is `application/cdmi-domain`  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Body consists of a JSON object containing only the field metadata as defined in clause 10.3.6 with entries as defined in clause 16 |
| 4    | verify  | CDMI Client displays all fields of the CDMI Domain |

8.4.2.2 TD/CDMI/DOMAIN/READ/002

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/DOMAIN/READ/002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Read metadata from existing CDMI Domain</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 10.3</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Domain with capability <code>cdmi_read_metadata</code></td>
</tr>
</tbody>
</table>

**Test Sequence:**

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests metadata of CDMI Domain from CDMI Server</td>
</tr>
</tbody>
</table>
| 2    | check   | CDMI Client sends a HTTP GET request  
  - Request URI is  
    `<root URI>/cdmi_domains/<DomainName>/<TheDomainName>/?metadata`  
    according to clause 10.3.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - If HTTP Accept header is present it is containing the MIME type `application/cdmi-domain` |
| 3    | check   | CDMI Server sends a HTTP 200 (OK)  
  - HTTP Content-Type header is `application/cdmi-domain`  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Body consists of a JSON object containing only the field metadata as defined in clause 10.3.6 with entries as defined in clause 16 |
| 4    | verify  | CDMI Client displays metadata of the CDMI Domain |
### 8.4.2.3  TD/CDMI/DOMAIN/READ/003

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/DOMAIN/READ/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>List children of existing CDMI Domain</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 10.3</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Domain with capability cdmi_list_children</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests children of CDMI Domain from CDMI Server</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP GET request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Request URI is <code>&lt;root URI&gt;/cdmi_domains/&lt;DomainName&gt;/&lt;TheDomainName&gt;?children</code> according to clause 10.3.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing the MIME type application/cdmi-domain</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Content-Type header is application/cdmi-domain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing only the field children as defined in clause 10.3.6</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays children of the CDMI Domain</td>
</tr>
</tbody>
</table>

### 8.4.3  Update

#### 8.4.3.1  TD/CDMI/DOMAIN/UPDATE/001

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/DOMAIN/UPDATE/001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Modify an existing CDMI Domain</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 10.4</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Domain</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to update CDMI Domain</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Request URI is <code>&lt;root URI/cdmi_domains/&lt;DomainName&gt;/&lt;NewDomainName&gt;</code> according to clause 10.4.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing the MIME type application/cdmi-domain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Content-Type header is application/cdmi-domain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing the fields defined in clause 10.4.4</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>check</td>
<td>CDMI Server sends HTTP 204 (NO CONTENT)</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays success of update operation</td>
</tr>
</tbody>
</table>
8.4.3.2 TD/CDMI/DOMAIN/UPDATE/002

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>TD/CDMI/DOMAIN/UPDATE/002</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong></td>
<td>Modify the metadata of an existing CDMI Domain</td>
</tr>
<tr>
<td><strong>Configuration:</strong></td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td><strong>References:</strong></td>
<td>CDMI - ISO/IEC 17826 [4], clause 10.4</td>
</tr>
<tr>
<td><strong>Pre-test conditions:</strong></td>
<td>Existing CDMI Domain with capability cdmi_modify_metadata</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Test Sequence:</strong></th>
<th><strong>Step</strong></th>
<th><strong>Type</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to update CDMI Domain</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Request URI is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• &lt;root URI&gt;/cdmi_domains/&lt;DomainName&gt;/&lt;NewDomainName&gt;/?metadata</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type application/cdmi-domain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-domain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing only the metadata field as defined in clause 10.4.4 and the content defined in clause 16</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>check</td>
<td>CDMI Server sends HTTP 204 (NO CONTENT)</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays success of update operation</td>
</tr>
</tbody>
</table>

8.4.4 Delete

8.4.4.1 TD/CDMI/DOMAIN/DELETE/001

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>TD/CDMI/DOMAIN/DELETE/001</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong></td>
<td>Delete an existing CDMI Domain</td>
</tr>
<tr>
<td><strong>Configuration:</strong></td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td><strong>References:</strong></td>
<td>CDMI - ISO/IEC 17826 [4], clause 10.5</td>
</tr>
<tr>
<td><strong>Pre-test conditions:</strong></td>
<td>Existing CDMI Domain with capability cdmi_delete_domain</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Test Sequence:</strong></th>
<th><strong>Step</strong></th>
<th><strong>Type</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to delete the CDMI Domain</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP DELETE request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Request URI is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• &lt;root URI&gt;/cdmi_domains/&lt;DomainName&gt;/&lt;TheDomainName&gt;/</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Header includes X-CDMI-Specification-Version</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>check</td>
<td>CDMI Server sends HTTP 204 (NO CONTENT)</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays success of delete operation</td>
</tr>
</tbody>
</table>
8.5 Queue Objects

8.5.1 Create

8.5.1.1 TD/CDMI/QUEUE/CREATE/001

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to create a new CDMI Queue</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;QueueName&gt;</code> according to clause 11.2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing the fields defined in clause 11.2.5</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing the fields defined in clause 11.2.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP status code is 201:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Field completionStatus of JSON object in HTTP Body is Complete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP status code is 202:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Field completionStatus of JSON object in HTTP Body is Processing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>If CDMI Server sends HTTP 201 status code</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CDMI Client reports success of create operation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If CDMI Server sends HTTP 202 status code</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CDMI Client reports delayed completion of create operation</td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td>CDMI Server has successfully created CDMI Queue</td>
</tr>
</tbody>
</table>
### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/QUEUE/CREATE/002</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong></td>
<td>Create a reference to an existing CDMI Queue</td>
</tr>
<tr>
<td><strong>Configuration:</strong></td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td><strong>References:</strong></td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.2</td>
</tr>
<tr>
<td><strong>Pre-test conditions:</strong></td>
<td>Existing CDMI Container with capability cdmi_create_reference</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td></td>
<td>CDMI Client requests CDMI Server to create a reference to a CDMI Queue</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td></td>
<td>CDMI Client sends a HTTP PUT request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;QueueName&gt;</code> according to clause 11.2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Content-Type header is application/cdmi-queue</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing the MIME type application/cdmi-queue</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing the fields defined in clause 11.2.5. The reference field contains the URI of a CDMI Queue</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td></td>
<td>CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Content-Type header is application/cdmi-queue</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing the fields defined in clause 11.2.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- If HTTP status code is 201:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- If HTTP status code is 202:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td></td>
<td>If CDMI Server sends HTTP 201 status code</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- CDMI Client reports success of create operation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If CDMI Server sends HTTP 202 status code</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- CDMI Client reports delayed completion of create operation</td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td></td>
<td>CDMI Server has successfully created reference to CDMI Queue</td>
</tr>
</tbody>
</table>
### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/QUEUE/CREATE/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Copy an existing CDMI Queue</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.2</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Container with capability cdmi_copy_queue Existing CDMI Queue</td>
</tr>
</tbody>
</table>

#### Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to copy an existing CDMI Queue</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP PUT request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;QueueName&gt;</code> according to clause 11.2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Content-Type header is <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing the MIME type <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing the fields defined in clause 11.2.5. The copy field contains the URI of a CDMI Queue</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Content-Type header is <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing the fields defined in clause 11.2.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP status code is 201:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Field completionStatus of JSON object in HTTP Body is Complete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP status code is 202:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Field completionStatus of JSON object in HTTP Body is Processing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>If CDMI Server sends HTTP 201 status code</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- CDMI Client reports success of copy operation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If CDMI Server sends HTTP 202 status code</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- CDMI Client reports delayed completion of copy operation</td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td>CDMI Server has successfully copied CDMI Queue</td>
</tr>
</tbody>
</table>
### Interoperability Test Description

**Identifier:** TD/CDMI/QUEUE/CREATE/004  
**Objective:** Move an existing CDMI Queue  
**Configuration:** CDMI_CFG_01  
**References:** CDMI - ISO/IEC 17826 [4], clause 11.2

**Pre-test conditions:**  
- Existing CDMI Container with capability `cdmi_move_queue`  
- Existing CDMI Queue

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests</td>
<td>CDMI Server to move an existing CDMI Queue</td>
</tr>
</tbody>
</table>
| 2             | check | | CDMI Client sends a HTTP PUT request  
  - Request URI is `<root URI>/<ContainerName>/<QueueName>` according to clause 11.2.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Content-Type header is `application/cdmi-queue`  
  - If HTTP Accept header is present it is containing the MIME type `application/cdmi-queue`  
  - HTTP Body consists of a JSON object containing the fields defined in clause 11.2.5. The move field contains the URI of a CDMI Queue |
| 3             | check | | CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)  
  - HTTP Content-Type header is `application/cdmi-queue`  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Body consists of a JSON object containing the fields defined in clause 11.2.7  
  - If HTTP status code is 201:  
    - Field `completionStatus` of JSON object in HTTP Body is Complete  
  - If HTTP status code is 202:  
    - Field `percentComplete` of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100 |
| 4             | verify | | If CDMI Server sends HTTP 201 status code  
  - CDMI Client reports success of move operation  
  If CDMI Server sends HTTP 202 status code  
  - CDMI Client reports delayed completion of move operation |
| 5             | verify | CDMI Server has successfully moved CDMI Queue |
## 8.5.1.5 TD/CDMI/QUEUE/CREATE/005

### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier</th>
<th>TD/CDMI/QUEUE/CREATE/005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Create a new CDMI Queue by deserializing an existing CDMI Data Object</td>
</tr>
<tr>
<td>Configuration</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References</td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.2</td>
</tr>
<tr>
<td>Pre-test conditions</td>
<td>Existing CDMI Container with capability cdmi_deserialize_queue</td>
</tr>
<tr>
<td></td>
<td>Existing CDMI Data Object containing serialization of CDMI Queue</td>
</tr>
<tr>
<td>Test Sequence:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Step</td>
</tr>
<tr>
<td>---</td>
<td>------</td>
</tr>
<tr>
<td>1</td>
<td>stimulus</td>
</tr>
</tbody>
</table>
| 2 | check | CDMI Client sends a HTTP PUT request  
  • Request URI is <root URI>/<ContainerName>/<QueueName> according to clause 11.2.1  
  • HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  • HTTP Content-Type header is application/cdmi-queue  
  • If HTTP Accept header is present it is containing the MIME type application/cdmi-queue  
  • HTTP Body consists of a JSON object containing the fields defined in clause 11.2.5. The deserialize field contains the URI of a CDMI Data Object |
| 3 | check | CDMI Server sends a HTTP 201 (CREATED) or HTTP 202 (ACCEPTED)  
  • HTTP Content-Type header is application/cdmi-queue  
  • HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)  
  • HTTP Body consists of a JSON object containing the fields defined in clause 11.2.7  
  • If HTTP status code is 201:  
    o Field completionStatus of JSON object in HTTP Body is Complete  
  • If HTTP status code is 202:  
    o Field completionStatus of JSON object in HTTP Body is Processing  
    o Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100 |
| 4 | verify | If CDMI Server sends HTTP 201 status code  
  • CDMI Client reports success of deserialize operation  
 If CDMI Server sends HTTP 202 status code  
  • CDMI Client reports delayed completion of deserialize operation |
| 5 | verify | CDMI Server has successfully deserialized CDMI Queue |
8.5.2  Read

8.5.2.1  TD/CDMI/QUEUE/READ/001

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/QUEUE/READ/001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Read all fields from existing CDMI Queue</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.3</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Queue</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to describe CDMI Queue</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td></td>
<td>CDMI Client sends a HTTP GET request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Request URI is &lt;root URI&gt;/&lt;ContainerName&gt;/&lt;QueueName&gt; according to clause 11.3.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type application/cdmi-queue</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK) or HTTP 202 (ACCEPTED)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-queue</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing the fields defined in clause 11.3.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Field value of JSON object in HTTP Body contains value of the oldest item in the queue, unless the queueValues range is empty</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If HTTP status code is 202:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Field completionStatus of JSON object in HTTP Body is Processing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Field percentComplete of JSON object in HTTP Body is present and indicates the percentage of completion as a numeric integer value from 0 through 100</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays all fields of the CDMI Queue</td>
<td></td>
</tr>
</tbody>
</table>
8.5.2.2 TD/CDMI/QUEUE/READ/002

Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/QUEUE/READ/002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Read metadata from existing CDMI Queue</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.3</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Container with capability cdmi_read_metadata</td>
</tr>
<tr>
<td></td>
<td>Existing CDMI Queue</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests capabilities of CDMI Container from CDMI Server according to TD/CDMI/CAPABILITIES/READ/004</td>
</tr>
<tr>
<td>2</td>
<td>verify</td>
<td>Capability cdmi_read_metadata is present in CDMI Container</td>
</tr>
<tr>
<td>3</td>
<td>stimulus</td>
<td>CDMI Client requests metadata of the CDMI Queue from CDMI Server</td>
</tr>
<tr>
<td>4</td>
<td>check</td>
<td>CDMI Client sends a HTTP GET request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;QueueName&gt;?metadata</code> according to clause 11.3.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td>5</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK) or HTTP 202 (ACCEPTED)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing only the metadata field as defined in clause 11.3.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Field metadata of JSON object in HTTP Body contains entries according to clause 16</td>
</tr>
<tr>
<td>6</td>
<td>verify</td>
<td>CDMI Client displays metadata of the CDMI Queue</td>
</tr>
</tbody>
</table>

8.5.2.3 TD/CDMI/QUEUE/READ/003

Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/QUEUE/READ/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Read value of oldest enqueued object of existing CDMI Queue</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.3</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Container with capability cdmi_read_value</td>
</tr>
<tr>
<td></td>
<td>Existing CDMI Queue with at least one enqueued value</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client sends a HTTP GET request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt;QueueName&gt;?value</code> according to clause 11.3.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If HTTP Accept header is present it is containing the MIME type <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK) or HTTP 202 (ACCEPTED)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HTTP Content-Type header is <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HTTP Body consists of a JSON object containing only the value field as defined in clause 11.3.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Field value of JSON object in HTTP Body contains only the value of the oldest enqueued object</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Client displays value of oldest enqueued object of the CDMI Queue</td>
</tr>
</tbody>
</table>
### 8.5.2.4 TD/CDMI/QUEUE/READ/004

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/QUEUE/READ/004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Read first 10 bytes of oldest enqueued object value of existing CDMI Queue</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.3</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Container with capability cdmi_read_value Existing CDMI Queue with at least one enqueued value</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests first 10 bytes of oldest enqueued object value of the CDMI Queue from CDMI Server</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP GET request</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt; QueueName&gt;?value:0-9</code> according to clause 11.3.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type application/cdmi-queue</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK) or HTTP 202 (ACCEPTED)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-queue</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing only the value field as defined in clause 11.3.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Field value of JSON object in HTTP Body contains only the first 10 bytes of the oldest enqueued object value</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays first 10 bytes of oldest enqueued object value of the CDMI Queue</td>
<td></td>
</tr>
</tbody>
</table>

### 8.5.2.5 TD/CDMI/QUEUE/READ/005

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/QUEUE/READ/005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Read queue values from existing CDMI Queue</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.3</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Queue with at least one enqueued value and capability cdmi_read_value</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests value of oldest enqueued object of the CDMI Queue from CDMI Server</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP GET request</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt; QueueName&gt;?values</code> according to clause 11.3.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type application/cdmi-queue</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 200 (OK) or HTTP 202 (ACCEPTED)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is application/cdmi-queue</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object containing only the value field as defined in clause 11.3.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Field value of JSON object in HTTP Body contains all values of the enqueued objects</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client displays all values enqueued objects of the CDMI Queue</td>
<td></td>
</tr>
</tbody>
</table>
8.5.3 Update

8.5.3.1 TD/CDMI/QUEUE/UPDATE/001

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/QUEUE/UPDATE/001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Modify an existing CDMI Queue</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.4</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Queue</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to update CDMI Queue</td>
</tr>
</tbody>
</table>
| 2    | check   | CDMI Client sends a HTTP PUT request  
  - Request URI is `<root URI>/<ContainerName>/<QueueName>` according to clause 11.4.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - If HTTP Accept header is present it is containing the MIME type application/cdmi-queue  
  - HTTP Content-Type header is application/cdmi-queue  
  - HTTP Body consists of a JSON object containing the fields defined in clause 11.4.4 |
| 3    | check   | CDMI Server sends a HTTP 204 (NO CONTENT)  
  - HTTP Body is empty |
| 4    | verify  | CDMI Client displays success of update operation |

8.5.3.2 TD/CDMI/QUEUE/UPDATE/002

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/QUEUE/UPDATE/002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Modify the metadata of an existing CDMI Queue</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.4</td>
</tr>
</tbody>
</table>
| Pre-test conditions: | Existing CDMI Container with capability cdmi_modify_metadata  
Existing CDMI Queue |

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to update CDMI Queue</td>
</tr>
</tbody>
</table>
| 2    | check   | CDMI Client sends a HTTP PUT request  
  - Request URI is `<root URI>/<ContainerName>/<QueueName>?metadata` according to clause 11.4.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - If HTTP Accept header is present it is containing the MIME type application/cdmi-queue  
  - HTTP Content-Type header is application/cdmi-queue  
  - HTTP Body consists of a JSON object containing only the metadata field as defined in clause 11.4.4 |
| 3    | check   | CDMI Server sends a HTTP 204 (NO CONTENT)  
  - HTTP Body is empty |
| 4    | verify  | CDMI Client displays success of update operation |
8.5.4 Delete

8.5.4.1 TD/CDMI/QUEUE/DELETE/001

Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/QUEUE/DELETE/001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Delete an existing CDMI Queue</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.5</td>
</tr>
</tbody>
</table>

Pre-test conditions:  
Existing CDMI Container with capability cdmi_delete_queue  
Existing CDMI Queue

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to delete the CDMI Queue</td>
<td></td>
</tr>
</tbody>
</table>
| 2             | check   | CDMI Client sends a HTTP DELETE request  
• Request URI is <root URI>/<ContainerName>/<QueueName> according to clause 11.5.1 |
| 3             | check   | CDMI Server sends a HTTP 204 (NO CONTENT) |
| 4             | verify  | CDMI Client displays success of delete operation |

8.5.5 Enqueue

8.5.5.1 TD/CDMI/QUEUE/ENQUEUE/001

Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/QUEUE/ENQUEUE/001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Enqueue a data value to an existing CDMI Queue</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.6</td>
</tr>
</tbody>
</table>

Pre-test conditions:  
Existing CDMI Container with capability cdmi_modify_value  
Existing CDMI Queue

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to enqueue a data value to an existing CDMI Queue</td>
<td></td>
</tr>
</tbody>
</table>
| 2             | check   | CDMI Client sends a HTTP POST request  
• Request URI is <root URI>/<ContainerName>/<QueueName> according to clause 11.6.1  
• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
• HTTP Content-Type header is application/cdmi-queue  
• If HTTP Accept header is present it is containing the MIME type application/cdmi-queue  
• HTTP Body consists of a JSON object containing the fields defined in clause 11.2.5  
• Field value of JSON object in HTTP Body contains data value to be enqueued |
| 3             | check   | CDMI Server sends a HTTP 204 (NO CONTENT) |
| 4             | verify  | CDMI Client reports success of enqueue operation |
| 5             | verify  | CDMI Server has successfully enqueued data object to CDMI Queue |
8.5.5.2 TD/CDMI/QUEUE/ENQUEUE/002

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>TD/CDMI/QUEUE/ENQUEUE/002</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong></td>
<td>Copy an existing CDMI Data Object or CDMI Queue to an existing CDMI Queue</td>
</tr>
<tr>
<td><strong>Configuration:</strong></td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td><strong>References:</strong></td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.6</td>
</tr>
<tr>
<td><strong>Pre-test conditions:</strong></td>
<td>Existing CDMI Container with capability cdmi_modify_value</td>
</tr>
<tr>
<td></td>
<td>Existing CDMI Queue</td>
</tr>
<tr>
<td></td>
<td>Existing CDMI Data Object or CDMI Queue</td>
</tr>
</tbody>
</table>

**Test Sequence:**

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to copy an existing CDMI Data Object or the values of an existing CDMI Queue to a CDMI Queue</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP POST request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Request URI is &lt;root URI&gt;/&lt;ContainerName&gt;/&lt;QueueName&gt; according to clause 11.6.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Content-Type header is application/cdmi-queue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing the MIME type application/cdmi-queue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing the fields defined in clause 11.2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Field copy of JSON object in HTTP Body contains URI of a CDMI Data Object or CDMI Queue</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 204 (NO CONTENT)</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client reports success of enqueue operation</td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td>CDMI Server has successfully enqueued CDMI Data Object or values of CDMI Queue</td>
</tr>
</tbody>
</table>

8.5.5.3 TD/CDMI/QUEUE/ENQUEUE/003

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>TD/CDMI/QUEUE/ENQUEUE/003</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong></td>
<td>Move an existing CDMI Data Object or CDMI Queue to an existing CDMI Queue</td>
</tr>
<tr>
<td><strong>Configuration:</strong></td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td><strong>References:</strong></td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.6</td>
</tr>
<tr>
<td><strong>Pre-test conditions:</strong></td>
<td>Existing CDMI Container with capability cdmi_modify_value</td>
</tr>
<tr>
<td></td>
<td>Existing CDMI Queue</td>
</tr>
<tr>
<td></td>
<td>Existing CDMI Data Object or CDMI Queue</td>
</tr>
</tbody>
</table>

**Test Sequence:**

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to move an existing CDMI Data Object or the values of an existing CDMI Queue to a CDMI Queue</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP POST request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Request URI is &lt;root URI&gt;/&lt;ContainerName&gt;/&lt;QueueName&gt; according to clause 11.6.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Content-Type header is application/cdmi-queue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If HTTP Accept header is present it is containing the MIME type application/cdmi-queue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HTTP Body consists of a JSON object containing the fields defined in clause 11.2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Field move of JSON object in HTTP Body contains URI of a CDMI Data Object or CDMI Queue</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 204 (NO CONTENT)</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client reports success of enqueue operation</td>
</tr>
</tbody>
</table>
8.5.6 Dequeue

8.5.6.1 TD/CDMI/QUEUE/DEQUEUE/001

Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/QUEUE/DEQUEUE/001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Dequeue oldest data value from an existing CDMI Queue</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.7</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Container with capability cdmi_modify_value Existing CDMI Queue</td>
</tr>
</tbody>
</table>

Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to dequeue oldest data value from existing CDMI Queue</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP DELETE request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt; QueueName&gt;?value</code> according to clause 11.7.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 204 (NO CONTENT)</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client reports success of dequeue operation</td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td>CDMI Server has successfully dequeued oldest data value from CDMI Queue</td>
</tr>
</tbody>
</table>

8.5.6.2 TD/CDMI/QUEUE/DEQUEUE/002

Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/CDMI/QUEUE/DEQUEUE/002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Dequeue the two oldest values from existing CDMI Queue</td>
</tr>
<tr>
<td>Configuration:</td>
<td>CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 11.7</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>Existing CDMI Container with capability cdmi_modify_value Existing CDMI Queue</td>
</tr>
</tbody>
</table>

Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to dequeue the two oldest data values from existing CDMI Queue</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>CDMI Client sends a HTTP DELETE request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/&lt;ContainerName&gt;/&lt; QueueName&gt;?values:2</code> according to clause 11.7.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HTTP Content-Type header is <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type <code>application/cdmi-queue</code></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>CDMI Server sends a HTTP 204 (NO CONTENT)</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>CDMI Client reports success of dequeue operation</td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td>CDMI Server has successfully dequeued the two oldest data values from CDMI Queue</td>
</tr>
</tbody>
</table>
9 Interworking

This section provides the test descriptions for the features addressed jointly with several Cloud specifications.

9.1 OCCI and CDMI

This section provides the test descriptions for the different features addressed jointly by OCCI and CDMI specifications.

9.1.1 Create

9.1.1.1 TD/INTER/OCCI+CDMI/CREATE/001

<table>
<thead>
<tr>
<th>Interoperability Test Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifier: TD/INTER/OCCI+CDMI/CREATE/001</td>
</tr>
<tr>
<td>Objective: Create an OCCI Storagelink between an existing OCCI Compute Resource and existing CDMI Container</td>
</tr>
<tr>
<td>Configuration: OCCI_CDMI_CFG_01</td>
</tr>
</tbody>
</table>
| References: CDMI - ISO/IEC 17826 [4], clause 13.6  
OCCI - GFD.184 [2], clause 3.4.3  
TD/OCCI/INFRA/CREATE/006 |
| Pre-test conditions: CDMI Server supports the OCCI/iSCSI or OCCI/NFSv4 Export Protocols  
OCCI Server supports linking to CDMI storage  
Existing OCCI Compute Resource  
Existing CDMI Container with permission for OCCI Compute Resource to access it |
<p>| Test Sequence: |</p>
<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to create an OCCI Storagelink between the OCCI Compute Resource and the CDMI Container</td>
</tr>
</tbody>
</table>
| 2 | check | OCCI Client sends a HTTP POST request  
• Request-URI is the location of the OCCI Kind corresponding to the OCCI Storagelink to be created  
• HTTP Content-Type header is one of the following MIME types:  
  • text/occi  
  • text/plain  
  • application/occi+json  
• HTTP Body contains the OCCI Storagelink description  
• The OCCI Storagelink description is compliant with the requested MIME type and the OCCI format restrictions. The target of the OCCI Storagelink is the URI of the CDMI Container  
• If HTTP Accept header is present it is containing at least one of the following MIME types:  
  • text/occi  
  • text/plain  
  • text/uri-list  
  • application/occi+json |
| 3 | check | OCCI Server sends a HTTP 201 (CREATED) response  
• HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
• HTTP Location header contains URL of the created OCCI Resource |
| 4 | verify | OCCI Client reports that OCCI Compute Resource has been successfully linked to CDMI Container |
| 5 | verify | OCCI Compute Resource can access the CDMI Container |
## 9.1.1.2 TD/INTER/OCCI+CDMI/CREATE/002

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/INTER/OCCI+CDMI/CREATE/002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create an OCCI Compute Resource with an OCCI Storagelink to an existing CDMI Container</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CDMI_CFG_01</td>
</tr>
</tbody>
</table>
| References: | CDMI - ISO/IEC 17826 [4], clause 13.6  
    OCCI - GFD.184 [2], clause 3.4.3  
    TD/OCCI/INFRA/CREATE/005 |
| Pre-test conditions: | CDMI Server supports the OCCI/iSCSI or OCCI/NFSv4 Export Protocols  
    OCCI Server supports linking to CDMI storage  
    Existing CDMI Container with permission for OCCI Compute Resource to access it |
<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to create an OCCI Compute Resource with an OCCI Storagelink to the CDMI Container</td>
<td></td>
</tr>
</tbody>
</table>
| 2             | check | OCCI Client sends a HTTP POST request  
    - Request-URI is the location of the OCCI Kind corresponding to the OCCI Compute Resource to be created  
    - HTTP Content-Type header is one of the following MIME types:  
      - text/occi  
      - text/plain  
      - application/occi+json  
    - HTTP Body contains the OCCI Compute Resource description including information on the OCCI Storagelink. The target of the OCCI Storagelink is the URI of the CDMI Container  
    - The description is compliant with the requested MIME type and the OCCI format restrictions. The target of the OCCI Storagelink is the URI of the CDMI Container  
    - If HTTP Accept header is present it is containing at least one of the following MIME types:  
      - text/occi  
      - text/plain  
      - text/uri-list  
      - application/occi+json |
| 3             | check | OCCI Server sends a HTTP 201 (CREATED) response  
    - HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
    - HTTP Location header contains URL of the created OCCI Resource |
| 4             | verify | OCCI Client reports that OCCI Compute Resource has been successfully created |
| 5             | stimulus | CDMI Client adds permission for the OCCI Compute Resource to access the CDMI Container |
| 6             | check | CDMI Client sends a HTTP PUT request  
    - Request URI is  
      `<root URI>/<ContainerName>/< TheContainerName >`  
      according to clause 9.5.1  
    - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
    - If HTTP Accept header is present it is containing the MIME type application/cdmi-container  
    - HTTP Content-Type header is application/cdmi-container  
    - HTTP Body consists of a JSON object which contains the exports field with information on each enabled export protocol as defined in clause 13. It contains the following information on the OCCI Export Protocol using the iSCSI or NFSv4 as $PROTOCOL  
    "OCCI/$PROTOCOL": {  
      "identifier": "$CDMI_CONTAINER_OBJECT_ID",  
      "permissions": [  
        "$OCCI_COMPUTE_URL"  
      ]  
    }  
    - If HTTP Accept header is present it is containing at least one of the following MIME types:  
      - text/occi  
      - text/plain  
      - text/uri-list  
      - application/occi+json |
| 7             | check | CDMI Server sends HTTP 202 (ACCEPTED) or HTTP 204 (NO CONTENT) |
| 8             | verify | CDMI Client displays success of adding access permission to CDMI Container |
| 9             | verify | OCCI Compute Resource can access the CDMI Container |
### 9.1.1.3 TD/INTER/OCCI+CDMI/CREATE/003

#### Interoperability Test Description

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/INTER/OCCI+CDMI/CREATE/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Create a CDMI Container and connect it to an existing OCCI Compute Resource using an OCCI Storagelink</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 13.6 OCCI - GFD.184 [2], clause 3.4.3 TD/CDMI/CONTAINER/CREATE/001</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>CDMI Server supports the OCCI/iSCSI or OCCI/NFSv4 Export Protocols OCCI Server supports linking to CDMI storage Existing OCCI Compute Resource</td>
</tr>
</tbody>
</table>

#### Test Sequence:  

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to create a new CDMI Container</td>
</tr>
</tbody>
</table>
| 2    | check | CDMI Client sends a HTTP PUT request  
  - Request URI is `<root URI>/<ContainerName>/<NewContainerName>` according to clause 9.2.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - HTTP Content-Type header is application/cdmi-container  
  - If HTTP Accept header is present it is containing the MIME type application/cdmi-container  
  - HTTP Body consists of a JSON object containing the fields defined in clause 9.2.5  
  - The exports field contains information on each enabled export protocol as defined in clause 13. It contains the following information on the OCCI Export Protocol using the iSCSI or NFSv4 as $PROTOCOL  
  ```json
  "OCCI/$PROTOCOL": {  
    "identifier": "$CDMI_CONTAINER_OBJECT_ID",  
    "permissions": [  
      "$OCCI_COMPUTE_URL"  
    ]  
  }
  ``` |
| 3    | check | CDMI Server sends HTTP 202 (ACCEPTED) or HTTP 204 (NO CONTENT) |
| 4    | verify | CDMI Client displays success of creating CDMI Container and granting access permission to OCCI Compute Resource |
| 5    | stimulus | OCCI Client requests OCCI Server to create an OCCI Storagelink between the OCCI Compute Resource and the CDMI Container |
| 6    | check | OCCI Client sends a HTTP POST request  
  - Request-URI is the location of the OCCI Kind corresponding to the OCCI Storagelink to be created  
  - HTTP Content-Type header is one of the following MIME types:  
    - text/occi  
    - text/plain  
    - text/json  
  - HTTP Body contains the OCCI Storagelink description  
  - The OCCI Storagelink description is compliant with the requested MIME type and the OCCI format restrictions. The target of the OCCI Storagelink is the URI of the CDMI Container  
  - If HTTP Accept header is present it is containing at least one of the following MIME types:  
    - text/occi  
    - text/plain  
    - text/url-list  
    - application/occi+json |
| 7    | check | OCCI Server sends a HTTP 201 (CREATED) response  
  - HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)  
  - HTTP Location header contains URL of the created OCCI Resource |
| 8    | verify | OCCI Client reports that OCCI Compute Resource has been successfully linked to CDMI Container |
| 9    | verify | OCCI Compute Resource can access the CDMI Container |
## 9.1.2 Read

### 9.1.2.1 TD/INTER/OCCI+CDMI/READ/001

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to send the description of the OCCI Compute Resource</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td>OCCI Client sends a HTTP GET request&lt;br&gt;• Request-URI is the location of the OCCI Resource&lt;br&gt;• If HTTP Accept header is present it is containing at least one of the following MIME types:&lt;br&gt;  • text/plain&lt;br&gt;  • text/occi&lt;br&gt;  • application/occi+json</td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td>OCCI Server sends a HTTP 200 (OK) response&lt;br&gt;• HTTP Content-Type header corresponds to request's HTTP Accept header if present (see GDF.185 [3], clause 3.6.6)&lt;br&gt;• HTTP body message contains the rendering of the OCCI Resource according to the MIME type specified in the HTTP Content-type header</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>OCCI Client displays the description of the OCCI Compute Resource which includes information on the OCCI Storagelink targeting a CDMI Container</td>
</tr>
</tbody>
</table>
### 9.1.2.2 TD/INTER/OCCI+CDMI/READ/002

<table>
<thead>
<tr>
<th>Identifier:</th>
<th>TD/INTER/OCCI+CDMI/READ/002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective:</td>
<td>Read OCCI export protocol field from existing CDMI Container</td>
</tr>
<tr>
<td>Configuration:</td>
<td>OCCI_CDMI_CFG_01</td>
</tr>
<tr>
<td>References:</td>
<td>CDMI - ISO/IEC 17826 [4], clause 13.6</td>
</tr>
<tr>
<td></td>
<td>TD/CDMI/CONTAINER/READ/001</td>
</tr>
<tr>
<td>Pre-test conditions:</td>
<td>CDMI Server supports the OCCI/iSCSI or OCCI/NFSv4 Export Protocols</td>
</tr>
<tr>
<td></td>
<td>OCCI Server supports linking to CDMI storage</td>
</tr>
<tr>
<td></td>
<td>Existing CDMI Container with OCCI export protocol</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Sequence:</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to describe CDMI Container</td>
</tr>
<tr>
<td>2</td>
<td>check</td>
<td></td>
<td>CDMI Client sends a HTTP GET request</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Request URI is <code>&lt;root URI&gt;/&lt;$ContainerName&gt;/&lt;TheContainerName&gt;?exports</code> according to clause 9.4.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If HTTP Accept header is present it is containing the MIME type <code>application/cdmi-container</code></td>
</tr>
<tr>
<td>3</td>
<td>check</td>
<td></td>
<td>CDMI Server sends a HTTP 200 (OK) or HTTP 202 (ACCEPTED)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Content-Type header is <code>application/cdmi-container</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Server (e.g. 1.0.2, 1.5, 2.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• HTTP Body consists of a JSON object which contains the exports field with the following information on the OCCI Export Protocol using the iSCSI or NFSv4 as <code>$PROTOCOL</code>:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;OCCI/$PROTOCOL&quot;: {</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;identifier&quot;: &quot;$CDMI_CONTAINER_OBJECT_ID&quot;,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;permissions&quot;: [</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;$OCCI_COMPUTE_URL&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>]</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td></td>
<td>CDMI Client displays all fields of the CDMI Container and contains information on the OCCI export protocol</td>
</tr>
</tbody>
</table>
### 9.1.3 Update

#### 9.1.3.1 TD/INTER/OCCI+CDMI/UPDATE/001

**Interoperability Test Description**

<table>
<thead>
<tr>
<th>Test Sequence</th>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
</table>
|               | 1    | stimulus | CDMI Client sends a HTTP PUT request  
|               |      |      | - Request URI is `<root URI>/<ContainerName>/<TheContainerName>` according to clause 9.5.1  
|               |      |      | - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
|               |      |      | - If HTTP Accept header is present it is containing the MIME type `application/cdmi-container`  
|               |      |      | - HTTP Content-Type header is `application/cdmi-container`  
|               |      |      | - HTTP Body consists of a JSON object which contains the exports field with information on each enabled export protocol as defined in clause 13. It contains the following information on the OCCI Export Protocol using the iSCSI or NFSv4 as `$PROTOCOL`  
|               |      |      | "OCCI/$PROTOCOL": {  
|               |      |      |   "identifier": "$CDMI_CONTAINER_OBJECT_ID",  
|               |      |      |   "permissions": [  
|               |      |      |   "$OCCI_COMPUTE_URL"  
|               |      |      | ] }  
|               | 2    | check | CDMI Server sends HTTP 202 (ACCEPTED) or HTTP 204 (NO CONTENT)  
|               | 3    | check | CDMI Client displays success of adding access permission to CDMI Container  
|               | 4    | verify | CDMI Client displays success of adding access permission to CDMI Container |
9.1.3.2 TD/INTER/OCCI+CDMI/UPDATE/002

### Interoperability Test Description

**Identifier:** TD/INTER/OCCI+CDMI/UPDATE/002  
**Objective:** Remove permission for an existing OCCI Compute Resource to access an existing CDMI Container  
**Configuration:** OCCI_CDMI_CFG_01  
**References:**  
- CDMI - ISO/IEC 17826 [4], clause 13.6  
- OCCI - GFD.184 [2], clause 3.4.3  
- TD/CDMI/CONTAINER/UPDATE/004  
**Pre-test conditions:**  
- CDMI Server supports the OCCI/iSCSI or OCCI/NFSv4 Export Protocols  
- OCCI Server supports linking to CDMI storage  
- An existing OCCI Compute Resource with an OCCI Storagelink to a CDMI Container  
- An existing CDMI Container with access permission for the OCCI Compute Resource  

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>CDMI Client removes permission for the OCCI Compute Resource to access the CDMI Container</td>
</tr>
</tbody>
</table>
| 2    | check | CDMI Client sends a HTTP PUT request  
  - Request URI is `<root URI>/<ContainerName>/< TheContainerName >` according to clause 9.5.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - If HTTP Accept header is present it is containing the MIME type `application/cdmi-container`  
  - HTTP Content-Type header is `application/cdmi-container`  
  - HTTP Body consists of a JSON object which contains the exports field with information on each enabled export protocol as defined in clause 13. It contains information on the OCCI Export Protocol without the URL of the OCCI Compute Resource to be removed |
| 3    | check | CDMI Server sends HTTP 202 (ACCEPTED) or HTTP 204 (NO CONTENT) |
| 4    | verify | CDMI Client displays success of removing access permission from CDMI Container |
| 5    | verify | OCCI Compute Resource cannot access CDMI Container anymore |
## 9.1.4 Delete

### 9.1.4.1 TD/INTER/OCCI+CDMI/DELETE/001

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client deletes an OCCI Compute Resource</td>
</tr>
</tbody>
</table>
| 2    | Check  | OCCI Client sends a HTTP DELETE request  
  - Request-URI is the location of the OCCI Resource |
| 3    | Check  | OCCI Server sends a HTTP 200 (OK) response |
| 4    | verify | OCCI Client displays success message |
| 5    | verify | OCCI Server has deleted OCCI Compute Resource |
| 6    | stimulus | CDMI Client removes access permission for the OCCI Compute Resource from the CDMI Container |
| 7    | Check  | CDMI Client sends a HTTP PUT request  
  - Request URI is <root URI>\/<ContainerName>\/< TheContainerName > according to clause 9.5.1  
  - HTTP X-CDMI-Specification-Version contains the CDMI version supported by the CDMI Client (e.g. 1.0.2, 1.5, 2.0)  
  - If HTTP Accept header is present it is containing the MIME type application/cdmi-container  
  - HTTP Content-Type header is application/cdmi-container  
  - HTTP Body consists of a JSON object which contains the exports field with information on each enabled export protocol as defined in clause 13. It contains information on the OCCI Export Protocol without the URL of the OCCI Compute Resource to be removed |
| 8    | Check  | CDMI Server sends HTTP 202 (ACCEPTED) or HTTP 204 (NO CONTENT) |
| 9    | verify | CDMI Client displays success of removing access permission from CDMI Container |
9.1.4.2 TD/INTER/OCCI+CDMI/DELETE/002

Interoperability Test Description

Identifier: TD/INTER/OCCI+CDMI/DELETE/002
Objective: Delete an existing CDMI Container with access permission for an OCCI Compute Resource
Configuration: OCCI_CDMI_CFG_01
References: CDMI - ISO/IEC 17826 [4], clause 13.6
OCCI - GFD.184 [2], clause 3.4.3
TD/CDMI/CONTAINER/DELETE/001
Pre-test conditions: CDMI Server supports the OCCI/iSCSI or OCCI/NFSv4 Export Protocols
OCCI Server supports linking to CDMI storage
Existing OCCI Compute Resource with an OCCI Storagelink to a CDMI Container
Existing CDMI Container with access permission for the OCCI Compute Resource

Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client deletes OCCI Storagelink</td>
</tr>
<tr>
<td>2</td>
<td>Check</td>
<td>OCCI Client sends a HTTP DELETE request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request-URI is the location of the OCCI Link</td>
</tr>
<tr>
<td>3</td>
<td>Check</td>
<td>OCCI Server sends a HTTP 200 (OK) response</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>OCCI Compute Resources can't access CDMI Container anymore</td>
</tr>
<tr>
<td>5</td>
<td>stimulus</td>
<td>CDMI Client requests CDMI Server to delete the CDMI Container</td>
</tr>
<tr>
<td>6</td>
<td>Check</td>
<td>CDMI Client sends a HTTP DELETE request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request URI is &lt;root URI&gt;/&lt;ContainerName&gt;/&lt; TheContainerName &gt; according to clause 9.6.1</td>
</tr>
<tr>
<td>7</td>
<td>Check</td>
<td>CDMI Server sends a HTTP 204 (NO CONTENT)</td>
</tr>
<tr>
<td>8</td>
<td>verify</td>
<td>CDMI Client displays success of delete operation</td>
</tr>
<tr>
<td>9</td>
<td>verify</td>
<td>CDMI Server has deleted CDMI Container</td>
</tr>
</tbody>
</table>

9.1.4.3 TD/INTER/OCCI+CDMI/DELETE/003

Interoperability Test Description

Identifier: TD/INTER/OCCI+CDMI/DELETE/003
Objective: Delete the OCCI Storagelink between an OCCI Compute Resource and a CDMI Container
Configuration: OCCI_CDMI_CFG_01
References: CDMI - ISO/IEC 17826 [4], clause 13.6
OCCI - GFD.184 [2], clause 3.4.3
TD/OCCI/CORE/DELETE/001
Pre-test conditions: CDMI Server supports the OCCI/iSCSI or OCCI/NFSv4 Export Protocols
OCCI Server supports linking to CDMI storage
Existing OCCI Compute Resource with OCCI Storagelink to a CDMI Container

Test Sequence:

<table>
<thead>
<tr>
<th>Step</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>stimulus</td>
<td>OCCI Client requests OCCI Server to delete the OCCI Storagelink</td>
</tr>
<tr>
<td>2</td>
<td>Check</td>
<td>OCCI Client sends a HTTP DELETE request</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Request-URI is the location of the OCCI Storagelink</td>
</tr>
<tr>
<td>3</td>
<td>Check</td>
<td>OCCI Server sends a HTTP 200 (OK) response</td>
</tr>
<tr>
<td>4</td>
<td>verify</td>
<td>OCCI Client displays success message</td>
</tr>
<tr>
<td>5</td>
<td>verify</td>
<td>OCCI Compute Resource can't access CDMI Container anymore</td>
</tr>
</tbody>
</table>
## History

<table>
<thead>
<tr>
<th>Document history</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V1.1.1</strong></td>
</tr>
<tr>
<td>April 2013</td>
</tr>
<tr>
<td>Publication</td>
</tr>
</tbody>
</table>
