OGC CSW-ebRIM Extension Package CIM - Abstract Test Suite

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Reviewer / CSW-ebRIM CIM Profile Technical Expert

<table>
<thead>
<tr>
<th>Revision History</th>
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<tbody>
<tr>
<td>Revision 0.1</td>
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<tr>
<td>Initial draft.</td>
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</table>

Overview
This document is an abstract test suite (ATS): a compendium of test assertions applicable to implementations of the CSW-ebRIM 1.0 CIM Extension Package (OGC 07-038r1). An ATS provides a basis for developing an executable test suite (ETS) to verify that the implementation under test (IUT) conforms to all relevant functional specifications.

The abstract test cases (assertions) are organized into test groups that correspond to sets of capabilities. The following test groups are defined:

1. CIM Extension Package

Two conformance levels are defined:
- Level 1 – test cases covering all mandatory requirements to be satisfied by a minimally conformant server implementation;
- Level 2 – test cases addressing desirable, but optional, behaviour requirements.

Note that the use in this document of uppercase to denote elements in XML text has no significance in either Web service requests or responses.

Limitations
There are some limitations and conditions to the ATS:
- Only the server is tested, not the client;
- The test assertions only apply to the specialist constraints and behaviour defined in OGC 07-038r1 and not to the full CSW-ebRIM specification. In particular, a catalogue implementation must also satisfy all relevant requirements in the following base specifications:
  - OGC Catalogue Services 2.0.2, Clause 10 (OGC 07-006r1, with Corr. 2)
  - OGC Web Services Common Specification 1.0 (OGC 05-008c1)
  - OGC Filter Encoding Implementation Specification 1.1 (OGC 04-095)
  - OASIS ebXML Registry Information Model, Version 3.0
  - OGC CSW-ebRIM Registry Service – Part 1: ebRIM profile of CSW (OGC 07-110r2)
  - OGC CSW-ebRIM Registry Service – Part 2: Basic extension package (OGC 07-144r2).

Source documents
OpenGIS® Web Service Common Implementation Specification (OGC-05-008r1)

TBD

**Executable test suite**
No executable test suite has yet been defined.

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**Table of Contents**
1. CIM Extension Package
   1.1. Conformance Level 1

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### 1. CIM Extension Package

**Purpose**
The CIM Extension Package test group includes assertions covering descriptions of conformance Level 1 capabilities.

#### 1.1 Conformance Level 1

**List of Tables**
1. Package availability
2. OGC Core Queryable and Returnable properties mapping
3. ISO AP Additional Queryable and Returnable properties mapping
4. ISO 19115/ISO 19119 metadata mapping

**ATC 1. Package availability**

<table>
<thead>
<tr>
<th>Test case identifier</th>
<th>Test purpose (assertion)</th>
<th>Test method</th>
<th>Reference</th>
</tr>
</thead>
</table>
| urn:ogc:cite:ats:csw-ebrim:1.0.0:07-038r1:cim:level-1:packageavailability | The EO Products package is available as a supported extension package and is complete. Verify that a rim:RegistryPackage element with @id = “urn:ogc:def:ebrIM-package:OGC:CIM” is a member of the ‘root’ package and contains the additional registry objects defined by the specification. Pass if the assertion is satisfied; fail otherwise. | | 1. OGC 07-110r2 Subclause 17.1  
2. OGC 07-038r1 Annex D |

| Test type | Basic |

**ATC 2. OGC Core Queryable and Returnable properties mapping**

<table>
<thead>
<tr>
<th>Test case identifier</th>
<th>Test purpose (assertion)</th>
<th>Test method</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>urn:ogc:cite:ats:csw-ebrim:1.0.0:07-038r1:cim:level-1:corepropertiesmapping</td>
<td>The OGC Core Queryable and Returnable properties are correctly mapped to the appropriate ExtrinsicObject. Verify that the mappings between the OGC Core Queryable and Returnable properties and the related ExtrinsicObject correspond to those specified in Tables E.1-E.4 of the specification. Pass if the mappings are correctly applied; fail otherwise.</td>
<td></td>
<td>1. OGC 07-038r1 Annex E.2</td>
</tr>
</tbody>
</table>

| Test type | Capability |

**ATC 3. ISO AP Additional Queryable and Returnable properties mapping**

<table>
<thead>
<tr>
<th>Test case identifier</th>
<th>Test purpose</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>urn:ogc:cite:ats:csw-ebrim:1.0.0:07-038r1:cim:level-1:additionalpropertiesmapping</td>
<td>The additional Queryable and Returnable properties defined by the</td>
<td></td>
</tr>
</tbody>
</table>

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(assertion) CSW ISO AP are correctly mapped to the appropriate ExtrinsicObject.

Verifying the mappings between the additional Queryable and Returnable properties defined by the CSW ISO AP and the related ExtrinsicObject correspond to those specified in Tables E.5-E.9 of the specification.

Pass if the mappings are correctly applied; fail otherwise.

Reference
1. OGC 07-038r1 Annex E.3
2. OGC 07-045 Subclause 7.2.4 and 7.2.5

Test type Capability

**ATC 4. ISO 19115/ISO 19119 metadata mapping**

Test case identifier urn:ogc:cite:ats:csw-ebrim:1.0.0:07-038r1:cim:level-1:isometadatamapping

Test purpose (assertion) The ISO 19115/ISO 19119 metadata are correctly mapped to the appropriate ExtrinsicObject.

Verify that the mappings between ISO 19115/ISO 19119 metadata and the related ExtrinsicObjects correspond to those specified in Tables F1-F16 of the specification.

Pass if the assertion is satisfied; fail otherwise.

Reference
1. OGC 07-038r1 Annex F

Test type Capability

**1.2 Conformance Level 2**

No conformance Level 1 capabilities assertion is defined.