OSLC Change Management Version 3.0. Part 2: Vocabulary

OASIS Standard with Draft 01 of Errata 01
Project Specification Draft 01
23 March 2023

This stage:
https://docs.oasis-open-projects.org/oslc-op/cm/v3.0/errata01/psd01/change-mgt-vocab.html (Authoritative)
https://docs.oasis-open-projects.org/oslc-op/cm/v3.0/errata01/psd01/change-mgt-vocab.pdf

Previous stage:
https://docs.oasis-open-projects.org/oslc-op/cm/v3.0/os/change-mgt-vocab.html (Authoritative)
https://docs.oasis-open-projects.org/oslc-op/cm/v3.0/os/change-mgt-vocab.pdf

Latest stage:
https://docs.oasis-open-projects.org/oslc-op/cm/v3.0/errata01/change-mgt-vocab.html (Authoritative)
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This specification is one component of a Work Product that also includes:

OSLC Change Management Version 3.0. Part 2: Vocabulary (this document)  
https://docs.oasis-open-projects.org/oslc-op/cm/v3.0/errata01/psd01/change-mgt-vocab.html

https://docs.oasis-open-projects.org/oslc-op/cm/v3.0/errata01/psd01/change-mgt-shapes.html

https://docs.oasis-open-projects.org/oslc-op/cm/v3.0/errata01/psd01/change-mgt-vocab.ttl

https://docs.oasis-open-projects.org/oslc-op/cm/v3.0/errata01/psd01/change-mgt-shapes.ttl

Related work:
This specification is related to:

http://open-services.net/bin/view/Main/CmSpecificationV2

RDF Namespaces:
http://open-services.net/ns/cm#

Abstract:
This document includes draft errata, as described in OSLC Change Management Version 3.0. Part 1: Specification, Appendix C. Errata.

This specification defines vocabulary terms for the Change Management domain.

Status:
This document was last revised or approved by the OASIS Open Services for Lifecycle Collaboration (OSLC) OP on the above date. The level of approval is also listed above. Check the “Latest stage” location noted above for possible later revisions of this document. Any other numbered Versions and other technical work produced by the Open Project are listed at https://github.com/oslc-op/oslc-specs.

Comments on this work can be provided by opening issues in the project repository or by sending email to the project’s public comment list oslc-op@lists.oasis-open-projects.org.

Note that any machine-readable content (Computer Language Definitions) declared Normative for this Work Product is provided in separate plain text files. In the event of a discrepancy between any such plain text file and display content in the Work Product's prose narrative document(s), the content in the separate plain text file prevails.

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1. Introduction

This section is non-normative.

This specification defines vocabulary terms for common Change Management resources. The intent is to define resources needed to support common integration scenarios and not to provide a comprehensive definition of a Change Request. The resource formats may not match exactly the native models supported by change management service providers, but are intended to be compatible with them. The approach to supporting these scenarios is to delegate operations, as driven by service provider contributed user interfaces, as much as possible and not require a service provider to expose its complete data model and application logic.

See [OSLC Change Management Version 3.0, Part 5: Machine Readable Constraints](https://w3id.org/cidoc/cem/2021/05) for the standard OSLC constraints defined on this vocabulary.

![Diagram of OSLC Change Management 3.0 Overview](image.png)

1.1 Terminology

Terminology is based on OSLC Core Overview [OSLCCore3], W3C Linked Data Platform [LDP], W3C's Architecture of the World Wide Web [WEBARCH], Hyper-text Transfer Protocol [HTTP11].

1.2 References

1.2.1 Normative references

[HTTP11]

1.2.2 Informative references

[OSLCQM]

[OSLCRM]

[WEBARCH]

1.3 Typographical Conventions and Use of RFC Terms

As well as sections marked as non-normative, all authoring guidelines, diagrams, examples, and notes in this specification are non-normative. Everything else in this specification is normative.

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this specification are to be interpreted as described in BCP 14 [RFC2119] [RFC8174] when, and only when, they appear in all capitals, as shown here.

In addition to the namespace URIs and namespace prefixes oslc, rdf, dcterms and foaf defined in the OSLC Core specification, OSLC CM defines the namespace URI of http://open-services.net/ns/cm# with a namespace prefix of oslc_cm

This specification also uses these namespace prefix definitions:

- oslc_rm: http://open-services.net/ns/rm# [OSLCRM]
- oslc_qm: http://open-services.net/ns/qm# [OSLCQM]
2. Change Management Vocabulary Terms

This specification defines the ChangeRequest superclass, and a number of specific, commonly occurring subclasses, properties and values. Servers may define additional ChangeRequest subclasses and provide additional properties as needed.

2.1 Vocabulary Details

The namespace URI for this vocabulary is: http://open-services.net/ns/cm#

All vocabulary URIs defined in the OSLC Change Management (CM) namespace.

2.1.1 Classes in this namespace (9)

ChangeNotice, ChangeRequest, Defect, Enhancement, Priority, ReviewTask, Severity, State, Task

ChangeNotice

http://open-services.net/ns/cm#ChangeNotice

ChangeNotice is an RDFS class.

Represents an assignment notification of a change request. May be used also to bestow authority onto the assigned user to effect the changes.

ChangeRequest

http://open-services.net/ns/cm#ChangeRequest

ChangeRequest is an RDFS class.

The CM Change Request resource.

Defect

http://open-services.net/ns/cm#Defect

Defect is an RDFS class.

A software or product defect.

Enhancement

http://open-services.net/ns/cm#Enhancement

Enhancement is an RDFS class.

A request for new functionality.

Priority

http://open-services.net/ns/cm#Priority

Priority is an RDFS class.
Defines the possible oslc_cm:priorit property values.

**ReviewTask**

http://open-services.net/ns/cm#ReviewTask

ReviewTask is an RDFS class.

A request to make a change and review the change.

**Severity**

http://open-services.net/ns/cm#Severity

Severity is an RDFS class.

Defines the possible oslc_cm:severity property values.

**State**

http://open-services.net/ns/cm#State

State is an RDFS class.

Defines the possible oslc_cm:state property values.

**Task**

http://open-services.net/ns/cm#Task

Task is an RDFS class.

An executable and trackable activity.

### 2.1.2 Properties in this namespace (27)

- affectedByDefect, affectsPlanItem, affectsRequirement, affectsTestResult, approved, authorizer, blocksTestExecutionRecord, closed, closeDate, fixed, implementsRequirement, inProgress, parent, priority, relatedChangeRequest, relatedTestCase, relatedTestExecutionRecord, relatedTestPlan, relatedTestScript, reviewed, severity, state, status, testedByTestCase, tracksChangeSet, tracksRequirement, verified

**affectedByDefect**

http://open-services.net/ns/cm#affectedByDefect

affectedByDefect is an RDF property.

Change request is affected by a reported defect. It is likely that the target resource will be an oslc_cm:Defect.

**affectsPlanItem**

http://open-services.net/ns/cm#affectsPlanItem

affectsPlanItem is an RDF property.

Change request affects a plan item. It is likely that the target resource will be an oslc_cm:ChangeRequest.
http://open-services.net/ns/cm#affectsRequirement

*affectsRequirement* is an RDF property.

The ChangeRequest affects a Requirement. It is likely that the target resource will be an oslc_rm:Requirement.

http://open-services.net/ns/cm#affectsTestResult

*affectsTestResult* is an RDF property.

Associated resource that is affected by this Change Request. It is likely that the target resource will be an oslc_qm:TestResult.

http://open-services.net/ns/cm#approved

*approved* is an RDF property.

Whether or not the Change Request has been approved.

http://open-services.net/ns/cm#authorizer

*authorizer* is an RDF property.

The URI of a resource describing an agent who is responsible authorizing for and/or has authorized effort to be expended to address a set of change requests.

http://open-services.net/ns/cm#blocksTestExecutionRecord

*blocksTestExecutionRecord* is an RDF property.

Associated resource that is blocked by this Change Request. It is likely that the target resource will be an oslc_qm:TestExecutionRecord.

http://open-services.net/ns/cm#closed

*closed* is an RDF property.

Whether or not the Change Request is completely done, no further fixes or fix verification is needed.

http://open-services.net/ns/cm#closeDate

*closeDate* is an RDF property.

The date at which no further activity or work is intended to be conducted.

http://open-services.net/ns/cm#fixed
**fixed** is an RDF property.
Whether or not the Change Request has been fixed.

**implementsRequirement**

http://open-services.net/ns/cm#implementsRequirement

*implementsRequirement* is an RDF property.
The ChangeRequest implements the associated Requirement. It is likely that the target resource will be an oslc_rm:Requirement.

**inProgress**

http://open-services.net/ns/cm#inProgress

*inProgress* is an RDF property.
Whether or not the Change Request in a state indicating that active work is occurring.

**parent**

http://open-services.net/ns/cm#parent

*parent* is an RDF property.
The related parent change requests of the subject change request.

**priority**

http://open-services.net/ns/cm#priority

*priority* is an RDF property.
Used to indicate the relative importance of ChangeRequests. It is likely that the target resource will be an oslc_cm:Priority.

**relatedChangeRequest**

http://open-services.net/ns/cm#relatedChangeRequest

*relatedChangeRequest* is an RDF property.
This relationship is loosely coupled, has no specific meaning, and can be used to link related change requests. It is likely that the target resource will be an oslc_cm:ChangeRequest.

**relatedTestCase**

http://open-services.net/ns/cm#relatedTestCase

*relatedTestCase* is an RDF property.
Related test case resource. It is likely that the target resource will be an oslc_qm:TestCase.

**relatedTestExecutionRecord**

http://open-services.net/ns/cm#relatedTestExecutionRecord

*relatedTestExecutionRecord* is an RDF property.
Related to a test execution resource. It is likely that the target resource will be an oslc_qm:TestExecutionRecord.

relatedTestPlan

http://open-services.net/ns/cm#relatedTestPlan

relatedTestPlan is an RDF property.

Related test plan resource. It is likely that the target resource will be an oslc_qm:TestPlan.

relatedTestScript

http://open-services.net/ns/cm#relatedTestScript

relatedTestScript is an RDF property.

Related test script resource. It is likely that the target resource will be an oslc_qm:TestScript.

reviewed

http://open-services.net/ns/cm#reviewed

reviewed is an RDF property.

Whether or not the Change Request has been reviewed.

severity

http://open-services.net/ns/cm#severity

severity is an RDF property.

Used to indicate the severity or potential impact of a defect. It is likely that the target resource will be an oslc_cm:Severity.

state

http://open-services.net/ns/cm#state

state is an RDF property.

Used to indicate the status of the change request.

status (Archaic term)

http://open-services.net/ns/cm#status

status is an RDF property.

Used to indicate the status of the change request based on values defined by the service provider. Most often a read-only property. It is likely that the target resource will be a string corresponding to an oslc_cm:State value.

testedByTestCase

http://open-services.net/ns/cm#testedByTestCase

testedByTestCase is an RDF property.

Test case by which this change request is tested. It is likely that the target resource will be an oslc_qm:TestCase.
tracksChangeSet

http://open-services.net/ns/cm#tracksChangeSet

tracksChangeSet is an RDF property.
Tracks a change set resource. It is likely that the target resource will be an oslc_config:ChangeSet.

tracksRequirement

http://open-services.net/ns/cm#tracksRequirement

tracksRequirement is an RDF property.
Tracks the associated Requirement or Requirement ChangeSet resources. It is likely that the target resource will be an oslc_rm:Requirement.

verified

http://open-services.net/ns/cm#verified

verified is an RDF property.
Whether or not the resolution or fix of the Change Request has been verified.

2.1.3 Resources (Individuals) in this namespace (20)

approved, Blocker, closed, Critical, defect, fixed, High, inprogress, Low, Major, Medium, Minor, Normal, planItem, PriorityUnassigned, requirementsChangeRequest, reviewed, SeverityUnassigned, task, verified

approved

http://open-services.net/ns/cm#Approved

approved is an RDF individual.
Whether or not the Change Request has been approved.

Blocker

http://open-services.net/ns/cm#Blocker

Blocker is an RDF individual.
Severe problem. No workaround. Blocks development, test, or usage.

closed

http://open-services.net/ns/cm#Closed

closed is an RDF individual.
Whether or not the Change Request is completely done, no further fixes or fix verification is needed.

Critical

http://open-services.net/ns/cm#Critical
Critical is an RDF individual.
Severe problem. No workaround.

defect
http://open-services.net/ns/cm#defect
defect is an RDF individual.
Used to report defects in testing.

fixed
http://open-services.net/ns/cm#Fixed
fixed is an RDF individual.
Whether or not the Change Request has been fixed.

High
http://open-services.net/ns/cm#High
High is an RDF individual.
Highest priority, action on the change request highly recommended.

inprogress
http://open-services.net/ns/cm#Inprogress
inprogress is an RDF individual.
Whether or not the Change Request in a state indicating that active work is occurring.

Low
http://open-services.net/ns/cm#Low
Low is an RDF individual.
Action on the change request can be safely deferred.

Major
http://open-services.net/ns/cm#Major
Major is an RDF individual.
Prevents function from being used. There is a workaround.

Medium
http://open-services.net/ns/cm#Medium
Medium is an RDF individual.
Acting on the change request can wait, but not forever.
Minor

http://open-services.net/ns/cm#Minor

*Minor* is an RDF individual.

Minimal impact.

Normal

http://open-services.net/ns/cm#Normal

*Normal* is an RDF individual.

Affects non-critical functionality. There is a workaround.

planItem

http://open-services.net/ns/cm#planItem

*planItem* is an RDF individual.

Used for associating change requests into plans (project, release, sprint, etc).

PriorityUnassigned

http://open-services.net/ns/cm#PriorityUnassigned

*PriorityUnassigned* is an RDF individual.

The priority of the change request is intentionally not set.

requirementsChangeRequest

http://open-services.net/ns/cm#requirementsChangeRequest

*requirementsChangeRequest* is an RDF individual.

Used for associating a change request for usage in tracking changes to a Requirements resource.

reviewed

http://open-services.net/ns/cm#Reviewed

*reviewed* is an RDF individual.

Whether or not the Change Request has been reviewed.

SeverityUnassigned

http://open-services.net/ns/cm#SeverityUnassigned

*SeverityUnassigned* is an RDF individual.

The severity of the change request is intentionally not set.

task

http://open-services.net/ns/cm#task
task is an RDF individual.

Used for associating change requests into executable and track-able items.

verified

http://open-services.net/ns/cm#Verified

verified is an RDF individual.

Whether or not the resolution or fix of the Change Request has been verified.
3. Standard Enumeration Values

The Change Management specification defines a number of standard enumeration values for ChangeRequest state, priority and severity. Servers are not limited to these values, they are only provided to establish a common set of values that facilitate interoperability.

Providers **MAY** have custom state, priority and severity values.

Providers **SHOULD** use `skos:narrower` when custom state, priority or severity values refine standard values to help clients understand the meaning of custom values.

Providers **SHOULD NOT** use `owl:sameAs` when custom state, priority or severity values refine standard values.

Priority and severity example:

**Example 1**

```reason
@prefix ex: <http://example.com/bugtracker> .
@prefix oslc: <http://open-services.net/ns/core#> .
@prefix oslc_cm: <http://open-services.net/ns/cm#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix dcterms: <http://purl.org/dc/terms/> .
@prefix skos: <http://www.w3.org/2004/02/skos/core> .

<http://example.com/bugs/2314>
  a oslc_cm:Defect;
  dcterms:identifier "00002314";
  oslc:shortTitle "Bug 2314";
  dcterms:title "Invalid installation instructions";
  oslc_cm:priority oslc_cm:High;
  oslc_cm:severity <http://example.com/enums#S1> .

<http://example.com/enums#HOT>
  a oslc_cm:Severity;
  rdfs:label "Severe - HOT";
  skos:narrower oslc_cm:Critical;
  ex:icon <http://example.com/severity/S1.gif>.
```

3.1 Resource: State

Defines a set of standard values for property `oslc_cm:status`.

- **Name**: State
- **Type URI**: `http://open-services.net/ns/cm#State`

<table>
<thead>
<tr>
<th>Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>oslc_cm:Closed</td>
<td>Completely done, no further fixes or fix verification is needed.</td>
</tr>
<tr>
<td>oslc_cm:Inprogress</td>
<td>Active work is occurring.</td>
</tr>
<tr>
<td>oslc_cm:Fixed</td>
<td>The issue is resolved or fixed but the resolution or fix has not yet been verified.</td>
</tr>
<tr>
<td>oslc_cm:Approved</td>
<td>The resolution or fix is approved and can be delivered.</td>
</tr>
<tr>
<td>oslc_cm:Reviewed</td>
<td>The resolution or the fix has been reviewed.</td>
</tr>
</tbody>
</table>

3.2 Resource: Priority

- **Name**: Priority
### Priority

- **Name:** oslc_cm:Priority
- **Type URI:** http://open-services.net/ns/cm#Priority

<table>
<thead>
<tr>
<th>Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>oslc_cm:High</td>
<td>Highest priority, action on the change request highly recommended.</td>
</tr>
<tr>
<td>oslc_cm:Medium</td>
<td>Acting on the change request can wait, but not forever.</td>
</tr>
<tr>
<td>oslc_cm:Low</td>
<td>Action on the change request can be safely deferred.</td>
</tr>
<tr>
<td>oslc_cm:PriorityUnassigned</td>
<td>The priority of the change request is intentionally not set.</td>
</tr>
</tbody>
</table>

### Severity

- **Name:** oslc_cm:Severity
- **Type URI:** http://open-services.net/ns/cm#Severity

**NEEDS UPDATE:** Improve descriptions.

<table>
<thead>
<tr>
<th>Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>oslc_cm:Blocker</td>
<td>Severe problem. No workaround. Blocks development, test, or usage.</td>
</tr>
<tr>
<td>oslc_cm:Critical</td>
<td>Severe problem. No workaround.</td>
</tr>
<tr>
<td>oslc_cm:Major</td>
<td>Prevents function from being used. There is a workaround.</td>
</tr>
<tr>
<td>oslc_cm:Normal</td>
<td>Affects non-critical functionality. There is a workaround.</td>
</tr>
<tr>
<td>oslc_cm:Minor</td>
<td>Minimal impact.</td>
</tr>
<tr>
<td>oslc_cm:SeverityUnassigned</td>
<td>Intentionally set blank.</td>
</tr>
</tbody>
</table>
4. Conformance

Change Management servers **MUST** use the vocabulary terms defined here where required, and with the meanings defined here.

Change Management servers **MAY** augment this vocabulary with additional classes, properties, and individuals.