



OSLC Requirements Management Version 2.1. Part 2: Vocabulary

Project Specification Draft 02 01 October 2019

This stage:

<https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/psd02/requirements-management-vocab.html> (Authoritative)
<https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/psd02/requirements-management-vocab.pdf>

Previous stage:

<http://docs.oasis-open.org/oslc-domains/oslc-rm/v2.1/cs01/part2-requirements-management-vocab/oslc-rm-v2.1-cs01-part2-requirements-management-vocab.html> (Authoritative)
<http://docs.oasis-open.org/oslc-domains/oslc-rm/v2.1/cs01/part2-requirements-management-vocab/oslc-rm-v2.1-cs01-part2-requirements-management-vocab.pdf>

Latest stage:

<https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/requirements-management-vocab.html> (Authoritative)
<https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/requirements-management-vocab.pdf>

Latest version:

<https://open-services.net/spec/rm/latest>

Latest editor's draft:

<https://open-services.net/spec/rm/latest-draft>

Open Project:

[OASIS Open Services for Lifecycle Collaboration \(OSLC\) OP](#)

Project Chairs:

Jim Amsden (jamsden@us.ibm.com), [IBM](#)
Andrii Berezovskyi (andriib@kth.se), [KTH](#)

Editors:

Mark Schulte (mark.d.schulte@boeing.com), [The Boeing Company](#)
Jad Elkhoury (jad@kth.se), [KTH The Royal Institute of Technology](#)

Additional components:

This specification is one component of a Work Product that also includes:

- OSLC Requirements Management Version 2.1. Part 1: Specification. [requirements-management-spec.html](#)
- OSLC Requirements Management Version 2.1. Part 2: Vocabulary (this document). [requirements-management-vocab.html](#)

Related work:

This specification is related to:

- *Open Services for Lifecycle Collaboration Requirements Management Specification Version 2.0.* <http://open->

Standards Track Work Product

services.net/bin/view/Main/RmSpecificationV2

RDF Namespaces:

<http://open-services.net/ns/rm#>

Abstract:

This specification defines a vocabulary and resource shapes for the OSLC Requirements 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://open-services.net/about/>.

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.

Citation format:

When referencing this specification the following citation format should be used:

[OSLC-RM-2.1-Part2]

OSLC Requirements Management Version 2.1, Part 2: Vocabulary. Edited by Mark Schulte and Jad El-khoury. 01 October 2019. OASIS Project Specification Draft 02. <https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/psd02/requirements-management-vocab.html>. Latest stage: <https://docs.oasis-open-projects.org/oslc-op/rm/v2.1/requirements-management-vocab.html>.

Notices

Copyright © OASIS Open 2019. All Rights Reserved.

All capitalized terms in the following text have the meanings assigned to them in the OASIS Intellectual Property Rights Policy (the "OASIS IPR Policy"). The full [Policy](#) may be found at the OASIS website.

This specification is published under the [Attribution 4.0 International \(CC BY 4.0\)](#). Portions of this specification are also provided under the [Apache License 2.0](#).

All contributions made to this project have been made under the [OASIS Contributor License Agreement \(CLA\)](#).

For information on whether any patents have been disclosed that may be essential to implementing this specification, and any offers of patent licensing terms, please refer to the [Open Projects IPR Statements page](#).

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published, and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this section are included on all such copies and derivative works. However, this document itself may not be modified in any way, including by removing the copyright notice or references to OASIS, except as needed for the purpose of developing any document or deliverable produced by an OASIS Open Project or OASIS Technical Committee (in which case the rules applicable to copyrights, as set forth in the OASIS IPR Policy, must be followed) or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by OASIS or its successors or assigns.

This document and the information contained herein is provided on an "AS IS" basis and OASIS DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY OWNERSHIP RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

OASIS requests that any OASIS Party or any other party that believes it has patent claims that would necessarily be infringed by implementations of this OASIS Project Specification or OASIS Standard, to notify the OASIS TC Administrator and provide an indication of its willingness to grant patent licenses to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification.

OASIS invites any party to contact the OASIS TC Administrator if it is aware of a claim of ownership of any patent claims that would necessarily be infringed by implementations of this specification by a patent holder that is not willing to provide a license to such patent claims in a manner consistent with the IPR Mode of the OASIS Open Project that produced this specification. OASIS may include such claims on its website, but disclaims any obligation to do so.

OASIS takes no position regarding the validity or scope of any intellectual property or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; neither does it represent that it has made any effort to identify any such rights. Information on OASIS' procedures with respect to rights in any document or deliverable produced by an OASIS Technical Committee can be found on the OASIS website. Copies of claims of rights made available for publication and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementers or users of this OASIS Open Project Specification or OASIS Standard, can be obtained from the OASIS TC Administrator. OASIS makes no representation that any information or list of intellectual property rights will at any time be complete, or that any claims in such list are, in fact, Essential Claims.

The name "OASIS" is a trademark of [OASIS](#), the owner and developer of this specification, and should be used only to refer to the organization and its official outputs. OASIS welcomes reference to, and implementation and use of, specifications, while reserving the right to enforce its marks against misleading uses. Please see <https://www.oasis-open.org/policies-guidelines/trademark> for above guidance.

Table of Contents

1. [Introduction](#)
 - 1.1 [Terminology](#)
 - 1.2 [References](#)
 - 1.3 [Typographical Conventions and Use of RFC Terms](#)
2. [Requirements Management Vocabulary Terms](#)
 - 2.1 [Vocabulary Details](#)
3. [Requirements Management Resource Constraints](#)
 - 3.1 [Resource: Requirement](#)
 - 3.2 [Resource: RequirementCollection](#)
4. [Relationship Properties](#)
 - 4.1 [Relationship labels](#)

1. Introduction

This section is non-normative.

This specification defines a vocabulary and resource shapes for the OSLC Requirements Management resources. The intent is to define resources needed to support common integration scenarios and not to provide a comprehensive definition of a Requirement. The resource formats may not match exactly the native models supported by requirement 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.

1.1 Terminology

This section is non-normative.

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]. Terminology for this specification is defined in part 1 of the multi-part specification.

1.2 References

1.2.1 Normative references

[HTTP11]

R. Fielding, Ed.; J. Reschke, Ed.. [Hypertext Transfer Protocol \(HTTP/1.1\): Message Syntax and Routing](#). June 2014. Proposed Standard. URL: <https://httpwg.org/specs/rfc7230.html>

[LDP]

Steve Speicher; John Arwe; Ashok Malhotra. [Linked Data Platform 1.0](#). 26 February 2015. W3C Recommendation. URL: <https://www.w3.org/TR/ldp/>

[OSLCCore2]

S. Speicher; D. Johnson. [OSLC Core 2.0](#). Finalized. URL: <http://open-services.net/bin/view/Main/OslcCoreSpecification>

[OSLCCore3]

Jim Amsden; S. Speicher. [OSLC Core 3.0](#). Project Specification. URL: <https://docs.oasis-open.org/oslc-core/oslc-core/v3.0/oslc-core-v3.0-part1-overview.html>

[OSLCCore3LinkGuidance]

Jim Amsden. [OSLC Core 3.0: Link Guidance](#). Project Note Draft. URL: <https://raw.githubusercontent.com/oslc-op/oslc-specs/master/notes/link-guidance.html>

[RFC2119]

S. Bradner. [Key words for use in RFCs to Indicate Requirement Levels](#). March 1997. Best Current Practice. URL: <https://tools.ietf.org/html/rfc2119>

1.2.2 Informative references

[WEBARCH]

Ian Jacobs; Norman Walsh. [Architecture of the World Wide Web, Volume One](#). 15 December 2004. W3C Recommendation. URL: <https://www.w3.org/TR/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**, **SHOULD**, **SHOULD NOT**, **RECOMMENDED**, **MAY**, and **OPTIONAL** in this specification are to be interpreted as

Standards Track Work Product

described in [\[RFC2119\]](#).

In addition to the namespace URIs and namespace prefixes `oslc`, `rdf`, `dcterms` and `foaf` defined in the [OSLC Core specification](#), OSLC RM defines the namespace URI of `http://open-services.net/ns/rm#` with a namespace prefix of `oslc_rm`

2. Requirements Management Vocabulary Terms

This specification defines the *root* superclasses, properties and values. Servers may define additional subclasses and provide additional properties as needed.

2.1 Vocabulary Details

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

All vocabulary URIs defined in the OSLC Requirements Management (RM) namespace.

2.1.1 Classes in this namespace (2)

[Requirement](#), [RequirementCollection](#)

Requirement

<http://open-services.net/ns/rm#Requirement>

Requirement is an RDFS class.

Statement of need.

RequirementCollection

<http://open-services.net/ns/rm#RequirementCollection>

RequirementCollection is an RDFS class.

Collection of requirements. A collection uses zero or more requirements.

2.1.2 Properties in this namespace (15)

[affectedBy](#), [constrainedBy](#), [constrains](#), [decomposedBy](#), [decomposes](#), [elaboratedBy](#), [elaborates](#), [implementedBy](#), [satisfiedBy](#), [satisfies](#), [specifiedBy](#), [specifies](#), [trackedBy](#), [uses](#), [validatedBy](#)

affectedBy

<http://open-services.net/ns/rm#affectedBy>

affectedBy is an RDF property.

Expresses an affects relationship between entities, where the object entity in some way affects the subject entity. For example, a requirement is affected by a defect.

constrainedBy

<http://open-services.net/ns/rm#constrainedBy>

constrainedBy is an RDF property.

Expresses a constraining relationship between entities, where the object entity constrains the subject entity. For example, a functional requirement is constrained by a safety requirement.

constrains

<http://open-services.net/ns/rm#constrains>

constrains is an RDF property.

Expresses a constraining relationship between entities, where the subject entity constrains the object entity. For example, a safety requirement constrains a functional requirement.

decomposedBy

<http://open-services.net/ns/rm#decomposedBy>

decomposedBy is an RDF property.

Expresses a decomposition relationship between entities, where the object entity decomposes the subject entity. For example, a system requirement is decomposed into a collection of system requirements.

decomposes

<http://open-services.net/ns/rm#decomposes>

decomposes is an RDF property.

Expresses a decomposition relationship between entities, where the subject entity decomposes the object entity. For example, a collection of system requirements decompose a system requirement.

elaboratedBy

<http://open-services.net/ns/rm#elaboratedBy>

elaboratedBy is an RDF property.

Expresses an elaboration relationship between entities, where the object entity elaborates the subject entity. For example, a requirement is elaborated by a model element.

elaborates

<http://open-services.net/ns/rm#elaborates>

elaborates is an RDF property.

Expresses an elaboration relationship between entities, where the subject entity elaborates the object entity. For example, a model element elaborates a requirement.

implementedBy

<http://open-services.net/ns/rm#implementedBy>

implementedBy is an RDF property.

Expresses an implementation relationship between entities, where the object entity is a necessary or desirable aspect of an implementation of the subject entity.

satisfiedBy

<http://open-services.net/ns/rm#satisfiedBy>

satisfiedBy is an RDF property.

The subject is satisfied by the object. For example, a user requirement is satisfied by a system requirement.

satisfies

<http://open-services.net/ns/rm#satisfies>

satisfies is an RDF property.

Expresses a relationship between entities, where the subject entity satisfies the object entity. For example, a system requirement satisfies a user requirement.

specifiedBy

<http://open-services.net/ns/rm#specifiedBy>

Standards Track Work Product

specifiedBy is an RDF property.

Expresses a specification relationship between entities, where the object entity further clarifies or specifies the subject entity. For example, a requirement is specified by a model element.

specifies

<http://open-services.net/ns/rm#specifies>

specifies is an RDF property.

Expresses a specification relationship between entities, where the subject entity further clarifies or specifies the object entity. For example, a model element specifies a requirement.

trackedBy

<http://open-services.net/ns/rm#trackedBy>

trackedBy is an RDF property.

Expresses a tracking relationship between entities, where the object entity in some way tracks or governs the evolution of the subject entity. For example, a requirement may be said to be tracked by a change request, in that it governs the changes to a requirement according to some process machinery.

uses

<http://open-services.net/ns/rm#uses>

uses is an RDF property.

Expresses a use relationship between entities, where the object entity is used by the subject entity. For example, a requirement collection may use a requirement.

validatedBy

<http://open-services.net/ns/rm#validatedBy>

validatedBy is an RDF property.

Expresses a validation relationship between entities, where the object entity in some way validates the subject entity. For example, a requirement collection may be said to be validated by a test plan.

3. Requirements Management Resource Constraints

3.1 Resource: Requirement

The constraints on the Requirement resource properties are defined in the tables below. Requirement resource properties are not limited to the ones defined in this specification. Service providers may provide additional properties. It is strongly recommended that any additional properties be defined in XML namespaces distinct from those defined by OSLC in these specifications. Requirement creation through a Creation Factory resource in the Service Description is **REQUIRED** by this specification.

Any **resource** asserted to be of `rdf:type http://open-services.net/ns/rm#Requirement` **MUST** conform to the constraints and meaning of properties defined below. Notice that partial representations of a requirement resource are admitted by this specification (for example, in query results, or where `oslc.properties` has been used), and such partial representations will in general not conform to these constraints.

- **Name:** Requirement
- **Type URI:** `http://open-services.net/ns/rm#Requirement`
- **Summary:** Statement of need.
- **Description:** A condition or capability needed by a stakeholder, or imposed by a solution component, to address a need, solve a problem, achieve an objective, or to satisfy a contract, standard, specification, or other formally imposed documents.

Requirement Properties

Prefixed Name	Occurs	Read-only	Value-type	Representation	Range	Description
<code>dcterms:contributor</code>	Zero-or-many	unspecified	AnyResource	Either	<code>oslc:AnyResource</code>	Contributor(s) to resource (reference: Dublin Core). It is likely that the target resource will be a <code><code>foaf:Person</code></code> but that is not necessarily the case.
<code>dcterms:created</code>	Zero-or-one	true	dateTime	N/A	Unspecified	Timestamp of resource creation (reference: Dublin Core).
<code>dcterms:creator</code>	Zero-or-many	unspecified	AnyResource	Either	<code>oslc:AnyResource</code>	Creator(s) of resource (reference: Dublin Core). It is likely that the target resource will be an <code><code>foaf:Person</code></code> but that is not necessarily the case.
<code>dcterms:description</code>	Zero-or-one	unspecified	XMLLiteral	N/A	Unspecified	Descriptive text (reference: Dublin Core) about resource represented as rich text in XHTML content. SHOULD include only content that is valid and suitable inside an XHTML <code><div></code> element.
<code>dcterms:identifier</code>	Zero-or-one	true	string	N/A	Unspecified	An identifier for a resource. This identifier may be unique with a scope that is defined by the RM provider. Assigned by the service provider when a resource is created. Not intended for end-user display.
<code>dcterms:modified</code>	Zero-or-one	true	dateTime	N/A	Unspecified	Timestamp of last resource modification (reference: Dublin Core).

Standards Track Work Product

Prefix Name	Occurs	Read-only	Value-type	Representation	Range	Description
<code>dcterms:subject</code>	Zero-or-many	false	string	N/A	Unspecified	Tag or keyword for a resource. Each occurrence of a <code>dcterms:subject</code> property denotes an additional tag for the resource.
<code>dcterms:title</code>	Exactly-one	unspecified	XMLLiteral	N/A	Unspecified	Title (reference: Dublin Core) of the resource represented as rich text in XHTML content. SHOULD include only content that is valid inside an XHTML <code></code> element.
<code>oslc_rm:affectedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The subject is affected by the object, such as a defect or issue.
<code>oslc_rm:constrainedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The subject is constrained by the object. For example, a functional requirement is constrained by a safety requirement.
<code>oslc_rm:constrains</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The object is constrained by the subject.
<code>oslc_rm:decomposedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The subject is decomposed by the object. For example, a system requirement is decomposed into a collection of system requirements.
<code>oslc_rm:decomposes</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The object is decomposed by the subject.
<code>oslc_rm:elaboratedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The subject is elaborated by the object. For example, a user requirement is elaborated by use case.
<code>oslc_rm:elaborates</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The object is elaborated by the subject.
<code>oslc_rm:implementedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	Resource, such as a change request, which implements this requirement.
<code>oslc_rm:satisfiedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The subject is satisfied by the object. For example, a user requirement is satisfied by a system requirement.
<code>oslc_rm:satisfies</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The object is satisfied by the subject.
<code>oslc_rm:specifiedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The subject is specified by the object. For example, a requirement is elaborated by a model element.

Standards Track Work Product

Prefix Name	Occurs	Read-only	Value-type	Representation	Range	Description
<code>oslc_rm:specifies</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The object is specified by the subject.
<code>oslc_rm:trackedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	Resource, such as a change request, which tracks this requirement.
<code>oslc_rm:validatedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	Resource, such as a test case, which validates this requirement.
<code>oslc:instanceShape</code>	Zero-or-one	unspecified	Resource	Reference	<code>oslc:ResourceShape</code>	Resource Shape that provides hints as to resource property value-types and allowed values.
<code>oslc:serviceProvider</code>	Zero-or-many	unspecified	Resource	Reference	<code>oslc:ServiceProvider</code>	The scope of a resource is a URI for the resource's OSLC Service Provider.
<code>oslc:shortTitle</code>	Zero-or-one	unspecified	XMLLiteral	N/A	Unspecified	Short name identifying a resource, often used as an abbreviated identifier for presentation to end-users. SHOULD include only content that is valid inside an XHTML <code></code> element.
<code>rdf:type</code>	Zero-or-many	unspecified	Resource	Reference	Unspecified	The resource type URIs.

3.2 Resource: RequirementCollection

The constraints on the RequirementCollection vocabulary resource properties are defined in the tables below. RequirementCollection resource properties are not limited to the ones defined in this specification, service providers may provide additional properties. It is strongly recommended that any additional properties be defined in XML namespaces distinct from those defined by OSLC in these specifications. RequirementCollection creation through a Creation Factory resource in the Service Description is **OPTIONAL** in this specification.

Any **resource** asserted to be of `rdf:type http://open-services.net/ns/rm#RequirementCollection` **MUST** conform to the constraints and meaning of properties defined below. Notice that partial representations of a requirement collection resource are admitted by this specification (for example, in query results, or where `oslc.properties` has been used), and such partial representations will in general not conform to these constraints.

- **Name:** `RequirementCollection`
- **Type URI:** `http://open-services.net/ns/rm#RequirementCollection`
- **Summary:** A collection of Requirements.
- **Description:** A grouping or collection of related requirements for any purpose.

RequirementCollection Properties

Prefix Name	Occurs	Read-only	Value-type	Representation	Range	Description
<code>dcterms:contributor</code>	Zero-or-many	unspecified	AnyResource	Either	<code>oslc:AnyResource</code>	Contributor(s) to resource (reference: Dublin Core). It is likely that the target resource will be a <code><code>foaf:Person</code></code> but that is not necessarily the case.
<code>dcterms:created</code>	Zero-or-one	true	dateTime	N/A	Unspecified	Timestamp of resource creation (reference: Dublin Core).

Standards Track Work Product

Prefix Name	Occurs	Read-only	Value-type	Representation	Range	Description
<code>dcterms:creator</code>	Zero-or-many	unspecified	AnyResource	Either	<code>oslc:AnyResource</code>	Creator(s) of resource (reference: Dublin Core). It is likely that the target resource will be an <code><code>foaf:Person</code></code> but that is not necessarily the case.
<code>dcterms:description</code>	Zero-or-one	unspecified	XMLLiteral	N/A	Unspecified	Descriptive text (reference: Dublin Core) about resource represented as rich text in XHTML content. SHOULD include only content that is valid and suitable inside an XHTML <code><div></code> element.
<code>dcterms:identifier</code>	Zero-or-one	true	string	N/A	Unspecified	An identifier for a resource. This identifier may be unique with a scope that is defined by the RM provider. Assigned by the service provider when a resource is created. Not intended for end-user display.
<code>dcterms:modified</code>	Zero-or-one	true	dateTime	N/A	Unspecified	Timestamp of last resource modification (reference: Dublin Core).
<code>dcterms:subject</code>	Zero-or-many	false	string	N/A	Unspecified	Tag or keyword for a resource. Each occurrence of a <code>dcterms:subject</code> property denotes an additional tag for the resource.
<code>dcterms:title</code>	Exactly-one	unspecified	XMLLiteral	N/A	Unspecified	Title (reference: Dublin Core) of the resource represented as rich text in XHTML content. SHOULD include only content that is valid inside an XHTML <code></code> element.
<code>oslc_rm:affectedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The subject is affected by the object, such as a defect or issue.
<code>oslc_rm:constrainedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The subject is constrained by the object. For example, a requirement collection is constrained by a requirement collection.
<code>oslc_rm:constrains</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The object is constrained by the subject.
<code>oslc_rm:decomposedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The subject is decomposed by the object. For example, a collection of business requirements is decomposed by a collection of user requirements.

Standards Track Work Product

Prefix Name	Occurs	Read-only	Value-type	Representation	Range	Description
<code>oslc_rm:decomposes</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The object is decomposed by the subject.
<code>oslc_rm:elaboratedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The subject is elaborated by the object. For example, a collection of user requirements elaborates a business need, or a model elaborates a collection of system requirements.
<code>oslc_rm:elaborates</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The object is elaborated by the subject.
<code>oslc_rm:implementedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	Resource, such as a change request, which implements this requirement collection.
<code>oslc_rm:satisfiedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The subject is satisfied by the object. For example, a collection of user requirements is satisfied by a requirement collection of system requirements.
<code>oslc_rm:satisfies</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The object is satisfied by the subject.
<code>oslc_rm:specifiedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The subject is specified by the object. For example, a model element might make a requirement collection more precise.
<code>oslc_rm:specifies</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	The object is specified by the subject.
<code>oslc_rm:trackedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	Resource, such as a change request, which manages this requirement collection.
<code>oslc_rm:uses</code>	Zero-or-many	unspecified	Resource	Reference	<code>oslc:AnyResource</code>	A collection uses a resource - the resource is in the requirement collection.
<code>oslc_rm:validatedBy</code>	Zero-or-many	false	Resource	Reference	<code>oslc:AnyResource</code>	Resource, such as a test plan, which validates this requirement collection.
<code>oslc:instanceShape</code>	Zero-or-one	unspecified	Resource	Reference	<code>oslc:ResourceShape</code>	Resource Shape that provides hints as to resource property value-types and allowed values.
<code>oslc:serviceProvider</code>	Zero-or-many	unspecified	Resource	Reference	<code>oslc:ServiceProvider</code>	The scope of a resource is a URI for the resource's OSLC Service Provider.

Standards Track Work Product

<i>Prefixed Name</i>	<i>Occurs</i>	<i>Read-only</i>	<i>Value-type</i>	<i>Representation</i>	<i>Range</i>	<i>Description</i>
<code>oslc:shortTitle</code>	Zero-or-one	unspecified	XMLLiteral	N/A	Unspecified	Short name identifying a resource, often used as an abbreviated identifier for presentation to end-users. SHOULD include only content that is valid inside an XHTML element.
<code>rdf:type</code>	Zero-or-many	unspecified	Resource	Reference	Unspecified	The resource type URIs.

4. Relationship Properties

This section is non-normative.

For compatibility with OSLC Core 2.0 [OSLCCore2], RM servers **MAY** accept relationship properties. This is however no longer recommended practice, since the necessary reification of relationship can have entailment and inferencing issues. OSLC Core 3.0 Link Guidance [OSLCCore3LinkGuidance] details an alternative approach, where a separate resource is created to represent the relationship and its properties.

The following relationship properties are defined by this specification:

Prefixed Name	Occurs	Read-only	Value-type	Representation	Range	Description
<code>dcterms:title</code>	zero-or-one	unspecified	XMLLiteral	n/a	n/a	Title (reference: Dublin Core) of the link represented as rich text in XHTML content. SHOULD include only content that is valid inside an XHTML <code></code> element.
<code>dcterms:creator</code>	zero-or-many	unspecified	Resource or Local Resource	Either Reference or Inline	any	Creator(s) of resource (reference: Dublin Core). It is likely that the target resource will be a <code>foaf:Person</code> but that is not necessarily the case.
<code>dcterms:contributor</code>	zero-or-many	unspecified	Resource or Local Resource	Either Reference or Inline	any	Creator(s) of resource (reference: Dublin Core). It is likely that the target resource will be a <code>foaf:Person</code> but that is not necessarily the case.
<code>dcterms:created</code>	zero-or-one	True	DateTime	n/a	n/a	Timestamp of link creation (reference: Dublin Core).
<code>dcterms:modified</code>	zero-or-one	True	DateTime	n/a	n/a	Timestamp last latest link modification (reference: Dublin Core).

4.1 Relationship labels

This section is non-normative.

When an RM relationship property is to be presented in a user interface, it may be helpful to provide an informative and useful textual label for that relationship instance. (This in addition to the relationship property URI and the object resource URI, which are also candidates for presentation to a user.) To this end, OSLC Servers **MAY** support a `dcterms:title` link property in RM resource representations where a relationship property is permitted, using the anchor approach outlined in the OSLC Core Links Guidance.

Servers and Clients should be aware that the `dcterms:title` of a link is unrelated to the `dcterms:title` of the object resource. Indeed, links may carry other properties with names in common to the object of the link, but there is no specified relationship between these property values.

4.1.1 Change History

This section is non-normative.

Revision	Date	Editor	Changes Made
01	2018-05-22	Jad El-khoury	Initial Committee Specification Draft migrated from open-services.net