

OSLC Architecture Management Version 3.0. Part 2: Vocabulary

OASIS Standard 11 July 2022

This stage:

https://docs.oasis-open-projects.org/oslc-op/am/v3.0/os/architecture-management-vocab.html (Authoritative) https://docs.oasis-open-projects.org/oslc-op/am/v3.0/os/architecture-management-vocab.pdf

Previous stage:

https://docs.oasis-open-projects.org/oslc-op/am/v3.0/ps01/architecture-management-vocab.html (Authoritative) https://docs.oasis-open-projects.org/oslc-op/am/v3.0/ps01/architecture-management-vocab.pdf

Latest stage:

https://docs.oasis-open-projects.org/oslc-op/am/v3.0/architecture-management-vocab.html (Authoritative) https://docs.oasis-open-projects.org/oslc-op/am/v3.0/architecture-management-vocab.pdf

Latest version:

https://open-services.net/spec/am/latest

Latest editor's draft:

https://open-services.net/spec/am/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

Editor:

Jim Amsden (jamsden@us.ibm.com), IBM

Additional components:

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

- OSLC Architecture Management Version 3.0. Part 1: Specification. architecture-management-spec.html
- OSLC Architecture Management Version 3.0. Part 2: Vocabulary (this document). <u>architecture-management-vocab.html</u>
- OSLC Architecture Management Version 3.0. Part 3: Constraints. architecture-management-shapes.html

- OSLC Architecture Management Version 3.0. Part 4: Machine Readable Vocabulary Terms. <u>architecture-management-vocab.ttl</u>
- OSLC Architecture Management Version 3.0. Part 5: Machine Readable Constraints. <u>architecture-management-shapes.ttl</u>

Related work:

This specification is related to:

OSLC Architecture Management Specification Version 2.0. http://open-services.net/wiki/architecture-management/OSLC-Architecture-Management-Specification-Version-2.0/

RDF Namespaces:

http://open-services.net/ns/core/am#

Abstract:

This specification defines vocabulary terms for the OSLC Architecture Management domain.

Status:

This document was last revised or approved by the membership of OASIS 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 <u>oslc-op@lists.oasis-open-projects.org</u>.

The English version of this specification is the only normative version. Non-normative translations may also be available. 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-AM-3.0-Part2]

OSLC Architecture Management Version 3.0. Part 2: Vocabulary. Edited by Jim Amsden. 11 July 2022. OASIS Standard. https://docs.oasis-open-projects.org/oslc-op/am/v3.0/os/architecture-management-vocab.html. Latest stage:

Notices

Copyright © OASIS Open 2022. 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 <u>Attribution 4.0 International (CC BY 4.0)</u>. 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 <u>Open Projects IPR Statements page</u>.

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 <u>OASIS</u>, 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-quidelines/trademark for above guidance.

Table of Contents

- 1. Introduction
 - 1.1 Terminology
 - 1.2 References
 - 1.2.1 Normative references
 - 1.2.2 Informative references
 - 1.3 Typographical Conventions and Use of RFC Terms
- 2. Architecture Management Vocabulary Terms
 - 2.1 Vocabulary Details
 - 2.1.1 Classes in this namespace (2)
- 3. Conformance

1. Introduction

This section is non-normative.

This specification defines vocabulary terms for OSLC Architecture Management resources. The intent is to define resources needed to support common integration scenarios and not to provide a comprehensive definition of an architecture resource. The resource formats are intended to define a high-level resource that can be specialized by enterprise architecture, analysis or design artifacts. 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.: <u>Hypertext Transfer Protocol (HTTP/1.1): Message Syntax and Routing</u>. IETF, June 2014. Proposed Standard. URL: https://httpwg.org/specs/rfc7230.html

[LDP]

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

[OSLCCore3]

Jim Amsden; S. Speicher. <u>OSLC Core Version 3.0. Part 1: Overview.</u> OASIS. Project Specification Draft. URL: <u>https://docs.oasis-open-projects.org/oslc-op/core/v3.0/oslc-core.html</u>

[RFC2119]

S. Bradner. Key words for use in RFCs to Indicate Requirement Levels. IETF, March 1997. Best Current Practice. URL: https://www.rfc-editor.org/rfc/rfc2119

[RFC8174]

B. Leiba. Ambiguity of Uppercase vs Lowercase in RFC 2119 Key Words. IETF, May 2017. Best Current Practice. URL: https://www.rfc-editor.org/rfc/rfc8174

1.2.2 Informative references

[OSLCQM]

Paul McMahan; Jim Amsden; Gray Bachelor. <u>OSLC Quality Management 2.1. Part 1: Specification</u>. OASIS. Project Specification Draft. URL: https://open-services.net/spec/gm/latest

[OSLCRM]

lan Green; Jad El-khoury. <u>OSLC Requirements Management Version 2.1. Part 1: Specification</u>. OASIS. Project Specification Draft. URL: https://open-services.net/spec/rm/latest

[WEBARCH]

lan Jacobs; Norman Walsh. <u>Architecture of the World Wide Web, Volume One</u>. W3C, 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", "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 AM defines the namespace URI of http://open-services.net/ns/am# with a namespace prefix of oslc_am

This specification also uses these namespace prefix definitions:

- OSIC_rm:http://open-services.net/ns/rm#[OSLCRM]
- oslc_qm:http://open-services.net/ns/qm#[OSLCQM]

2. Architecture Management Vocabulary Terms

Property value types that are not defined in the following sections, are defined in [OSLCCore3].

There are two OSLC AM defined resources: Resource and LinkType. OSLC AM defines a least common set of properties for resources, however service implementations are free to extend this set of properties. Clients MUST preserve properties it does not recognize when updating resources. AM Servers MAY ignore properties that it does not recognize. Additional properties may come from existing vocabularies (ie. Dublin Core, OWL). When additional properties do not come from a known vocabulary, it is recommended that they exist in their own unique namespace, and providers SHOULD NOT reuse namespaces defined in these specifications. [cc-1]

All RDF/XML resources that include links with annotations **MUST** begin with an outer <rdf:RDF> element. This outer XML element is required to support the ability to include annotations on 'link' properties with additional <rdf:Description> elements reifying statements about the link. [cc-2]

Service implementations and clients **MUST** be prepared to accept any form of valid RDF/XML. For example the following two resource forms are equivalent. [cc-3]

```
EXAMPLE 1
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:oslc="http://open-services.net/ns/core#"
  xmlns:oslc am="http://open-services.net/ns/am#"
  xmlns:dcterms="http://purl.org/dc/terms/">
   <oslc am:Resource rdf:about="https://example.com/resources/res1">
     <dcterms:title>Service Interface</dcterms:title>
     <dcterms:identifier>res1</dcterms:identifier>
     <oslc:serviceProvider rdf:resource="http://open-services.net/ns/am#"/>
    </oslc am:Resource>
</rdf:RDF>
is equivalent to
   xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:oslc="http://open-services.net/ns/core#"
  xmlns:dcterms="http://purl.org/dc/terms/">
   <rdf:Description rdf:about="https://example.com/resources/res1">
      <dcterms:title>Service Interface</dcterms:title>
     <dcterms:identifier>res1</dcterms:identifier>
     <rdf:type rdf:resource="http://open-services.net/ns/am#Resource" />
     <oslc:serviceProvider rdf:resource="http://open-services.net/ns/am#"/>
    </rdf:Description>
</rdf:RDF>
```

This specification defines a number of specific, commonly occurring vocabulary terms (OWL classes), properties and values. Servers may define additional classes and provide additional properties as needed.

2.1 Vocabulary Details

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

All vocabulary URIs defined in the OSLC Architecture Management (AM) namespace.

2.1.1 Classes in this namespace (2)

<u>ArchitectureResource</u>, <u>LinkType</u>

ArchitectureResource

http://open-services.net/ns/am#Resource

ArchitectureResource is an RDFS class.

A generic architecture resource. A resource of this type is likely to be a model or design artifact.

LinkType

http://open-services.net/ns/am#LinkType

LinkType is an RDFS class.

A locally managed resource that describes a link type predicate that might otherwise not be directly resolvable.

3. Conformance

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

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

Clause Number	Requirement
<u>cc-1</u>	There are two OSLC AM defined resources: Resource and LinkType. OSLC AM defines a least common set of properties for resources, however service implementations are free to extend this set of properties. Clients MUST preserve properties it does not recognize when updating resources. AM Servers MAY ignore properties that it does not recognize. Additional properties may come from existing vocabularies (ie. Dublin Core, OWL). When additional properties do not come from a known vocabulary, it is recommended that they exist in their own unique namespace, and providers SHOULD NOT reuse namespaces defined in these specifications.
<u>cc-2</u>	All RDF/XML resources that include links with annotations MUST begin with an outer <rdf:rdf> element. This outer XML element is required to support the ability to include annotations on 'link' properties with additional <rdf:description> elements reifying statements about the link.</rdf:description></rdf:rdf>
<u>cc-3</u>	Service implementations and clients MUST be prepared to accept any form of valid RDF/XML. For example the following two resource forms are equivalent.