Bill Chown, OSLC Open Project Governing Board

OSLC – Applicability to MBSE
OSLC Open Project

• Since May 2019, OSLC is an OASIS Open Project
• Participation in the OSLC Open Project is open to anyone who has something to contribute
• Governance for the OSLC Open Project is managed by its Project Governing Board and its Technical Steering Committee
Applicability of OSLC

Open Services for Lifecycle Collaboration

• Domain-driven scenarios inspire standardization of common capabilities across disciplines
  – Many potential Disciplines, including Change Management, Requirements Management, and Quality Management
  – Cross-domain scenarios such as Application Lifecycle Management (ALM) & DevOps, Product Lifecycle Management (PLM), and Integrated Service Management (ISM)

• The OSLC approach focuses on software lifecycle management to ensure it meets a core set of scenarios and requirements
# Values of the OSLC Approach

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Vendor Lock-In</td>
<td>Free yourself from vendor dependancy. Your data in your hands</td>
</tr>
<tr>
<td>Reusability</td>
<td>Reuse existing OSLC REST APIs supported by major vendor and for specific application or data formats</td>
</tr>
<tr>
<td>Application Integration</td>
<td>Integrate your own or existing open sources applications to visualize, search, analyze and edit your data, and more!</td>
</tr>
<tr>
<td>Source Independent</td>
<td>Integrate databases from different sources</td>
</tr>
<tr>
<td>Database Independent</td>
<td>Integrate systems with different technologies and standards</td>
</tr>
<tr>
<td>Linked Data</td>
<td>Link your data using widely adopted web standards</td>
</tr>
<tr>
<td>Data Visualization</td>
<td>Visualize your data the way you need. Graphs, Tables, Trees, you name it</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>Analyze your connected data for insights never before possible</td>
</tr>
<tr>
<td>Make Better Decisions</td>
<td>Take action with information and insight never possible before</td>
</tr>
</tbody>
</table>
Achieving the Digital Thread

Use OSLC to connect your data and achieve the digital thread across domains, applications, and organizations.
OSLC Architecture

Layered architecture builds on Linked Data
A Family of Specifications and Methods

2020 saw publication of key OASIS Project Specifications:
- OSLC Core v3.0
- OSLC Query v3.0
- OSLC Requirements Management v2.1
- OSLC Change Management v3.0
- OSLC Quality Management v3.0

Each has 3 Statements of Use
OSLC Core

OSLC Core defines the overall approach to Open Services for Lifecycle Collaboration that extend and complement the W3C Linked Data Platform

- The OSLC Core specification expands on the W3C LDP capabilities
  - Define the essential and common technical elements of OSLC domain specifications
  - Offer guidance on common concerns for creating, updating, retrieving, and linking to lifecycle resource
  - RDF vocabularies describe standardized resource types and properties
  - OSLC resource shapes are used to define constraints such as multiplicity constraints on properties of specific resource type

- OSLC domain-specific specifications
  - The equivalent of schemas in RDF for enabling data interoperability
  - They consist of RDF vocabularies and OSLC resource shapes

- The OSLC Core Specification is a Hypermedia API, with the potential to provide value to any domain with data integration challenges
OSLC Core 3.0

- OSLC Core 3.0 builds on capabilities developed in different standards organizations, TCs and working groups
Goals of OSLC Core 3.0

- Integration based on an open standard, not controlled by any single vendor
- Based on the W3C Linked Data Platform standard which provides a solid foundation for reading and writing linked data resources
- 3.0 specifications are simpler, more consistent and will potentially be more attractive to, and easier to consume by new integrations
- New capabilities specified in 3.0, including attachments, inverse link labels, traceability and impact types
Coming Next

• An OSLC API & reference implementation for SysML v2, to be contributed to OMG
• Architecture Management has published a project specification draft
• Project specification draft for Configuration Management expected soon
• Working on Tracked Resource Sets
Contribute to OSLC

• See more at https://open-services.net

• Access specs and work in progress in github https://github.com/topics/oslc

• Join the team!
2021 Annual INCOSE International Workshop
Virtual Event
January 29 - 31, 2021

www.incose.org/IW2021