OSLC SCM: Status and Way Forward

Open Services for Lifecycle Collaboration (OSLC)

Working to standardize the way software lifecycle tools share data

> **Open Services for Lifecycle Collaboration**
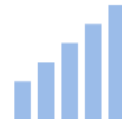> Lifecycle integration inspired by the web

- Community Driven – @ **open-services.net**
- Open specifications for numerous disciplines
  - Including ALM, PLM, and DevOps
  - Defined by scenarios – solution oriented
- Inspired by Internet architecture
- A different approach to industry-wide proliferation
- Based on **W3C®** Linked Data

Inspired by the web   **Free to use and share**   **Changing the industry**

GET INVOLVED AND CONTRIBUTE!

Next NOW!

IBM

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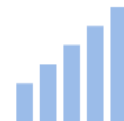Lifecycle integration inspired by the web

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OSLC Community and Beyond

Wide range of interests, expertise, participation

- 400+ registered community members
- Workgroup participation by people from 34+ different organizations
- open-services.net/members
- open-services.net/participate
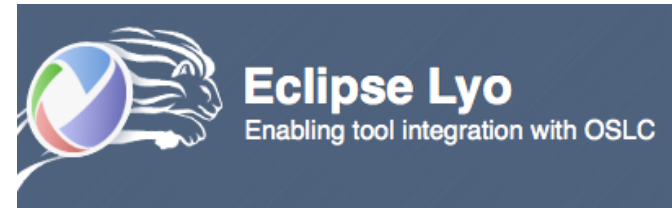
Growing list of implementations from IBM and others

- 1st-party implementations from Rational, Oracle, Tivoli, and open source
- 3rd-party "adapters" from IBM, Kovair, Tasktop, and open source
- open-services.net/software/

Completed and active specifications for many domains

- Change Management
- Quality Management
- Requirements Management
- Product Lifecycle Management
- Performance Monitoring
- open-services.net/specifications

? SCM

Eclipse Lyo
Enabling tool integration with OSLC

Eclipse project enabling adoption of OSLC
- Libraries, samples, examples, tutorials, documentation
- Reference implementations
- Test suites and test reporting
eclipse.org/lyo

W3C WORLD WIDE WEB consortium

W3C Member Submission:
Linked Data Basic Profile
- IBM, DERI, EMC, Oracle, Red Hat, SemanticWeb.com, Tasktop
- Supporters: Siemens, Cambridge Semantics

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OSLC SCM History

- WG started in September 2009 with 14 members
  - 3 non-IBM consumers
  - No non-IBM producers
- Initial directive: v1.0 by end Q1 2010!
  - In line with proposed date for OSLC CM 2.0
  - Dates slipped through 2010 with creation of Core

OSLC SCM Current State

- 1.0 Draft Spec nominally in Finalization

  – A few open issues and minor tidying up required

- But very limited adoption

  – Only 1 partial implementation: Synergy 7.1.0.2 (and Synergy 7.2)

  – No current implementation for Rational Team Concert or ClearCase

  – No external vendors showing interest

  – Some interest from Mylyn as consumer

  – Some interest and experimentation by customers and third parties

Problems with OSLC SCM 1.0

- Spec is large and expensive to implement
  - Approximately 16 different resource types
  - At least two query capabilities
  - A non-standard equivalent of SPARQL 1.1 property paths
  - Complex URI structure with several query strings defined

- While at the same time, benefit appears to be small
  - Scope appears to be limited to SCM tools
  - Read-only access – no PUT, POST, or DELETE operations defined
  - Limited client demand: OSLC SCM 1.0 provided little that you could not do better from the SCM tools themselves
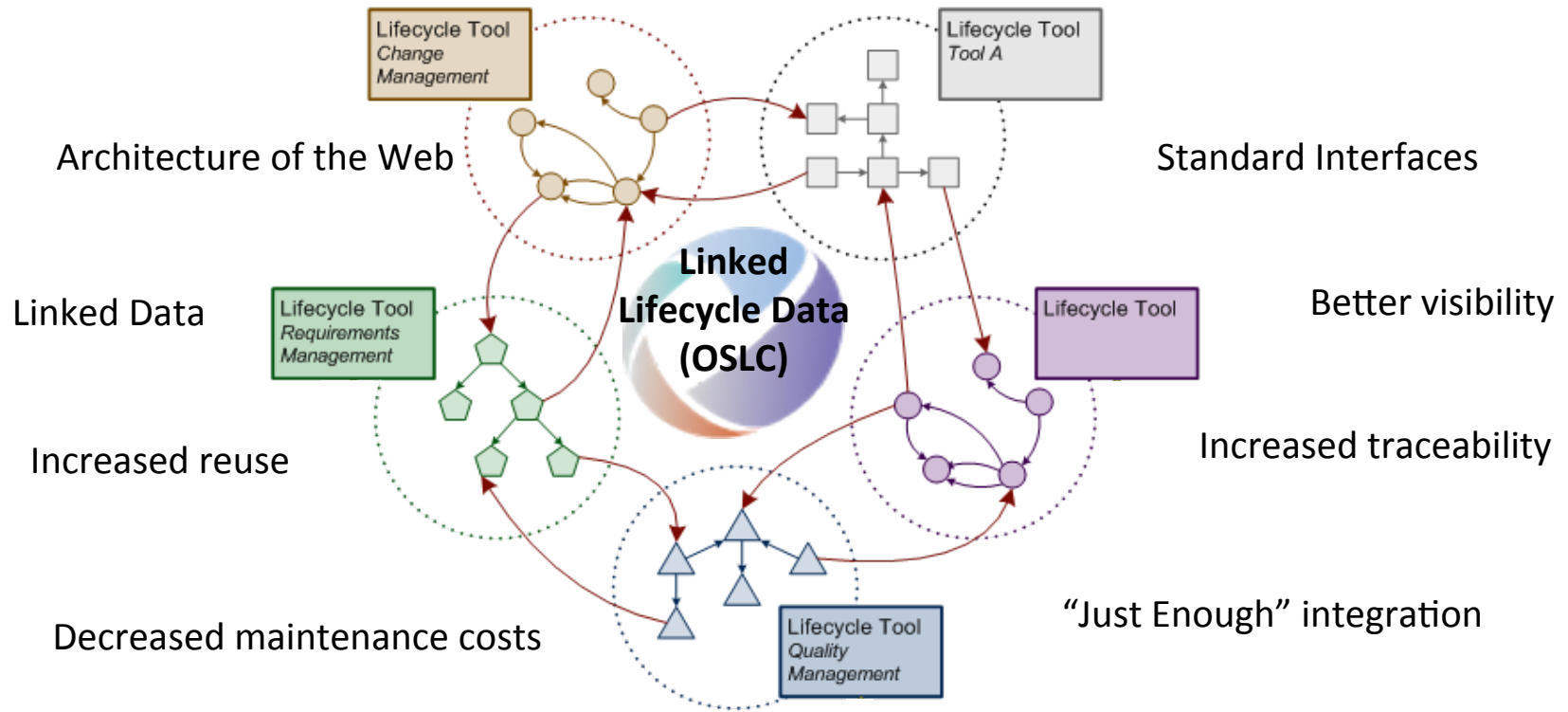
Current Activity

- No activities around OSLC SCM itself for several months

- Some effort on OSLC baselines, but that work was shelved

- Core Extension proposals from PLM-ALM

- IBM's work on the W3C Linked Data Basic Profile submission

- Development in IBM's thinking about configuration management with linked data

OSLC's Innovative Solution

Users can work across the integration without leaving their favorite tool

Architecture of the Web

Linked Data

Increased reuse

Decreased maintenance costs

Standard Interfaces

Better visibility
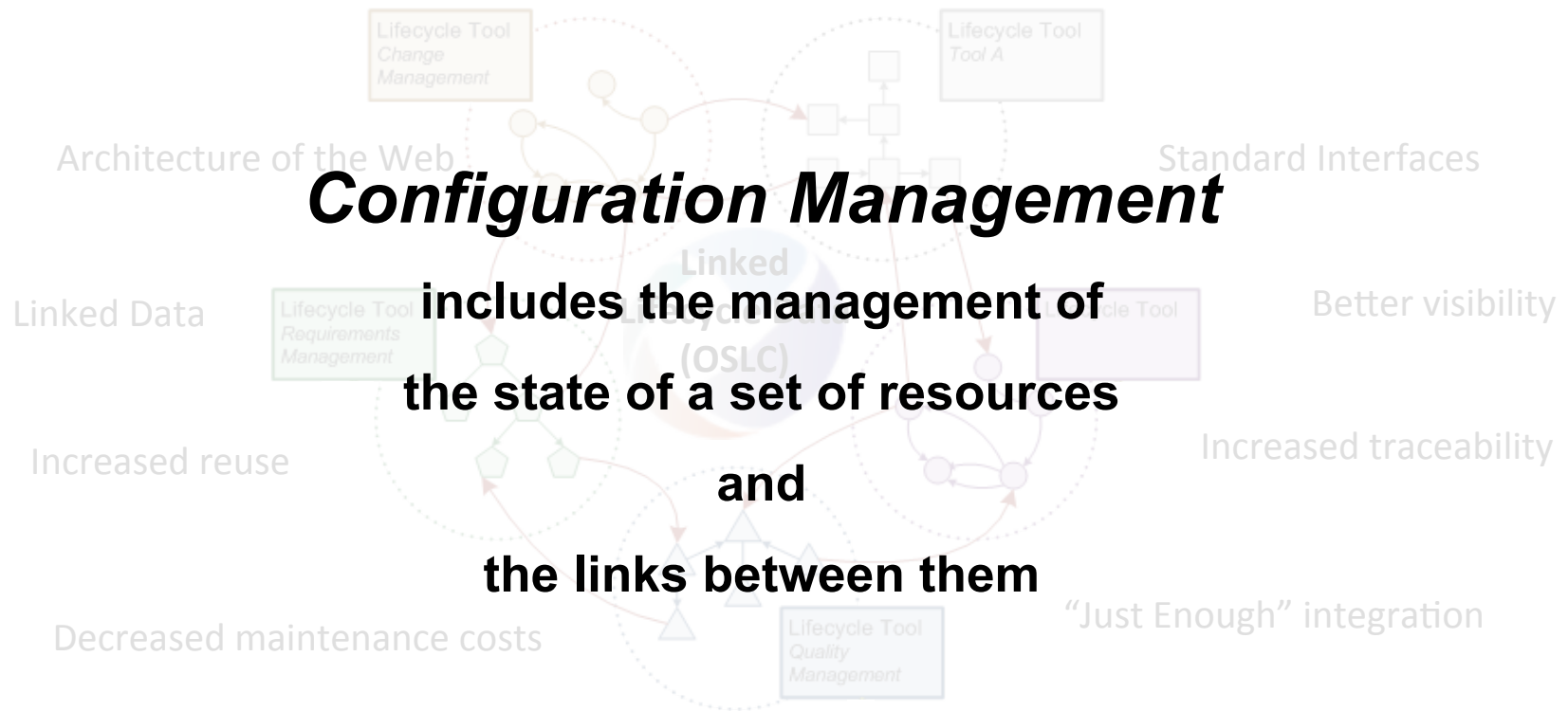
Increased traceability

"Just Enough" integration

Links to where the data lives as opposed to copying and synchronizing

Way Forward: Increase appeal while lowering cost

- Reduce the size and complexity of the spec
  - Make more use of existing or developing standards such as the Basic Profile
  - Make use of other existing vocabularies if appropriate
  - Reduce the number of resource types and REST services required

- Broaden the scope from SCM to Configuration Management
  - Rethink the scenarios
  - Rewrite the spec language to avoid explicit references to files and directories
  - Consider use cases from other domains

- Compatibility is desirable but not mandatory

OSLC's Innovative Solution

Users can work across the integration without leaving their favorite tool

Architecture of the Web

Standard Interfaces

Linked Data

Better visibility

Configuration Management

includes the management of

the state of a set of resources

and

the links between them

Increased reuse

Increased traceability

Decreased maintenance costs

"Just Enough" integration

Links to where the data lives as opposed to copying and synchronizing

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Possible new driving scenario: cross-tool baselines

- As a user of a set of tools from several vendors including but not limited to IBM and Rational, I want to establish a consistent snapshot of the state of resources (a *baseline)* across all those tools, so that I can record this state for future review and audit.

- As a user of these tools, I want to be have traceability of changes across them so that I can determine whether or not a given set of changes (a *change set*) is or is not included in a given baseline

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Structure of revised spec

- Define or reference a simple versioning model, where that model is sharable across OSLC domains, and addresses the use cases of the PLM-ALM workgroup

- Define a baseline as a composite or aggregate that wraps baselines/snapshots/etc. from one or more specific providers into a provider-neutral resource that delegates all operations down to the provider that owns the subject resource

- Similarly, define a change set as a provider-neutral unit describing the changes in this baseline

- Avoid defining other resource types; where possible, reuse basic profile resources and basic profile containers
  - Basic profile supports standard REST operations on BPR and BPC resources: POST, GET, PUT, DELETE

Next steps

- Nick to write, and group to agree on:
  - Formal statement of new scope (charter)
  - Deliverables
  - Expected milestones
- Rechartering submitted to OSLC Steering Committee

- Meeting schedule agreed
  - But note that OSLC guidelines require us to allow full participation via email
- Expansion / revision of workgroup membership

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Questions and Discussion

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