W3C Linked Data Platform Open Meeting

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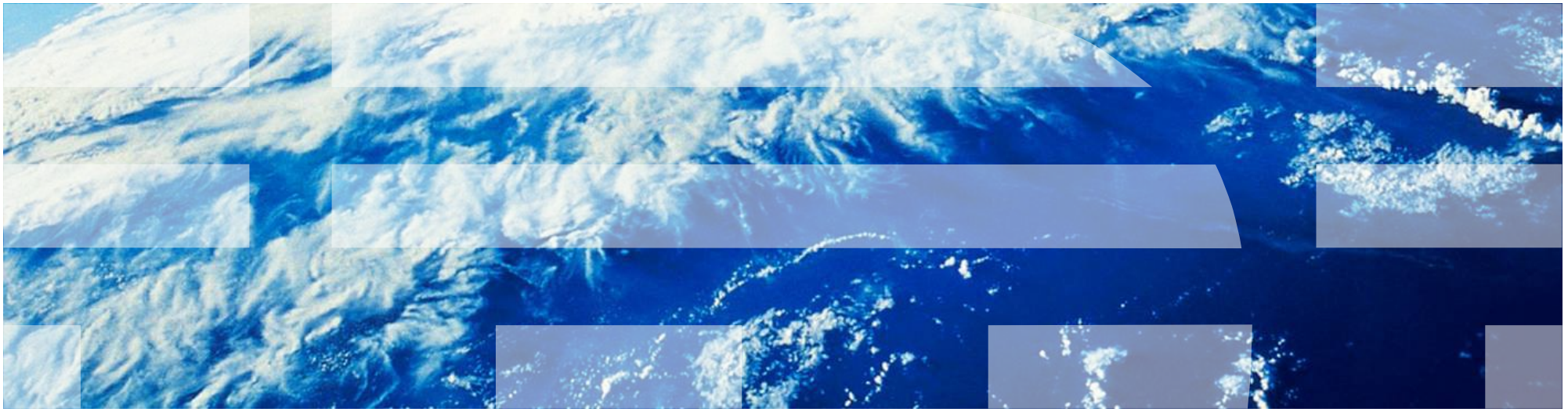
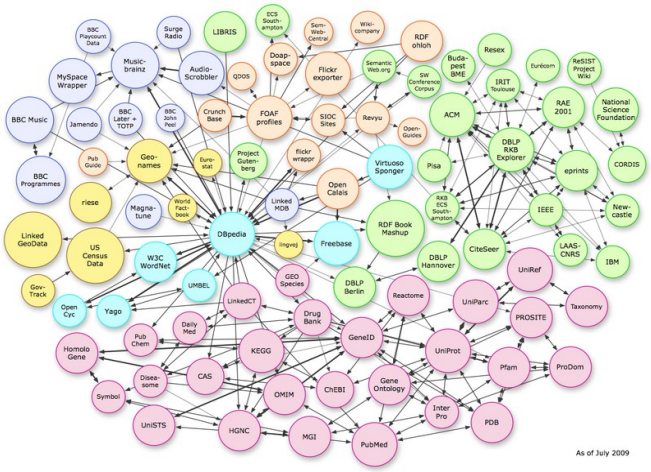


Linked Data – Defined by Tim Berners-Lee

1. *Use URIs as names for things*
2. *Use HTTP URIs so that people can look up those names.*
3. *When someone looks up a URI, provide useful information, using the standards (RDF*, SPARQL)*
4. *Include links to other URIs. so that they can discover more things.*

He concludes this with: "Simple."

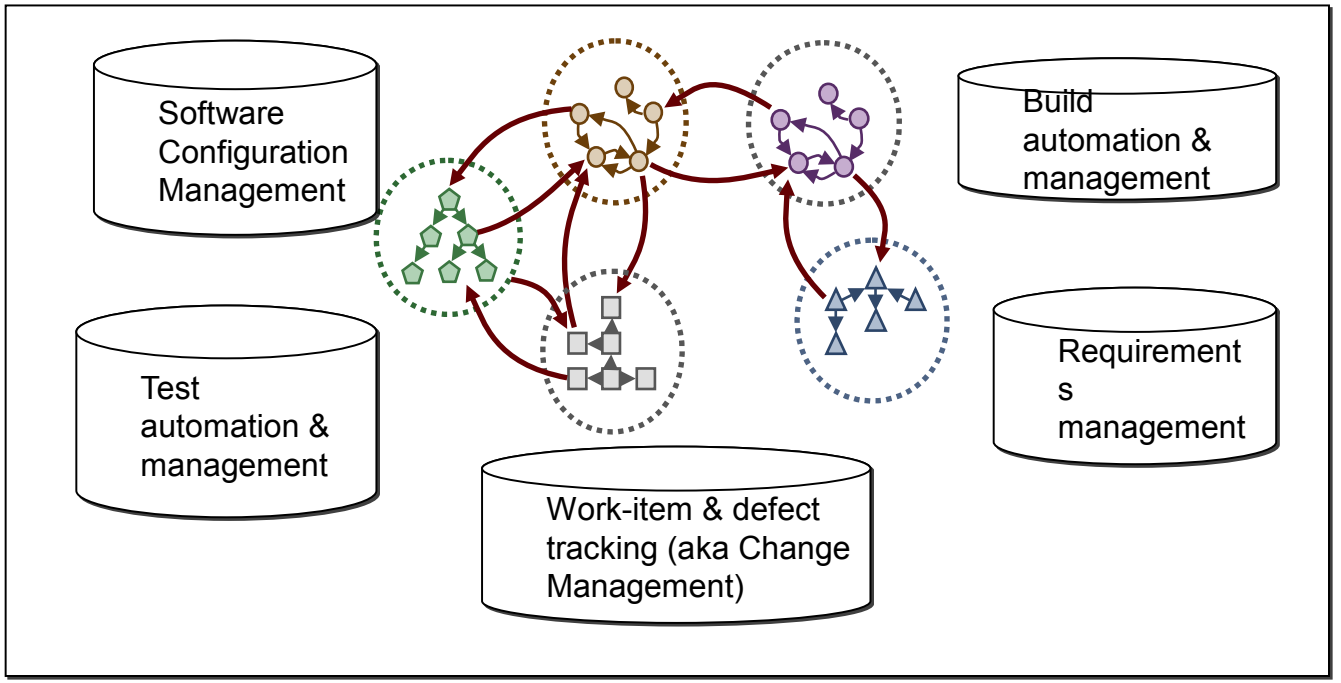


Reference: "Linked Data", Tim Berners-Lee, 2006-07-27

Year 2010 – IBM Rational's Breakthrough

Integrate with data & open protocols instead of glue code

“If the entire Web can connect like this, why wouldn't the same idea work for ALM?”



Applying Linked Data to the ALM Integration Challenge:

- Artifacts such as defects, change requests, and tests become resources exposed as RDF that can be linked to each other
- Tools simply access the resources via HTTP following the Linked Data principles

Challenges of using Linked Data

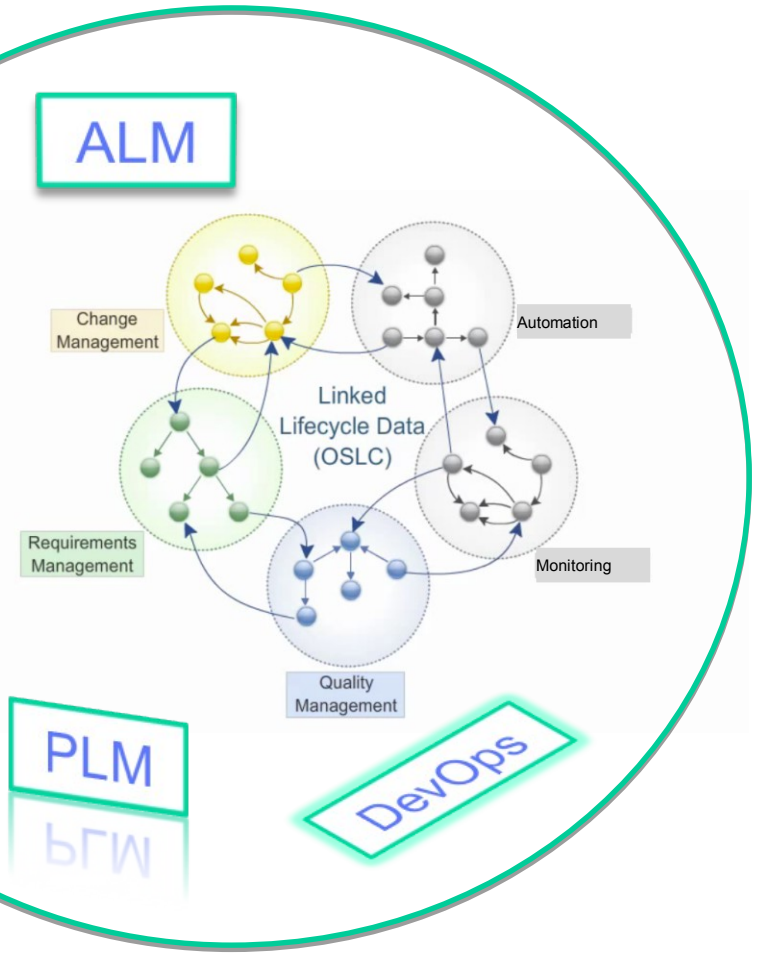
- No formal definition
- State of the art was primarily about publishing **read-only** data on the web, downloaded and updated as large dumps or via a SPARQL entry point
- Tim Berners-Lee's four principles are a terrific foundation but didn't go far enough.
- Developers were left with many unanswered questions:
  - How do I create a resource?
    - It seems obvious that you use POST to create, but what do you POST to?
  - Where can I get the list of resources that already exist?
  - Which vocabulary do I use?
  - Which media types do I use?
  - When resources get big, how do I split the information into pages?
  - How do I specify ordering?

Open Services for Lifecycle Collaboration (OSLC)

Working to improve the way software lifecycle tools share data

Open Services for Lifecycle Collaboration
Lifecycle integration inspired by the web

- Community driven and governed
  - 400+ registered community members
  - Workgroup members from 34+ organizations
- Wide range of interests, expertise, & participation
- Open specifications for numerous disciplines
- Defined by scenarios – solution oriented
- Implementations from IBM, BPs, and Others
  - Based on W3C® Linked Data



Inspired by the web
Proven

Free to use and share
Open

Changing the industry
Innovative

open-services.net

For more info see: http://open-services.net

Possible future work of interest

Several necessary and desirable features are not in scope for LDP 1.0:

- "Inlining"
- Validation/Constraints
  - RDF Data Shapes Working Group developing SHACL
  - How can LDP leverage SHACL?
- Security – Authentication & Access Control
  - WG identified requirements and use cases
  - Several technologies can already be used: OAuth, WebId, etc.
- OSLC Track Resource Set
  - Protocol allowing clients to track state changes to resources
- OSLC Query
  - Simple query mechanism
  - http://example.com/bugs?
    oslc.select=dcterms:created,dcterms:creator{foaf:familyName}&oslc.where=cm:severity="high"