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shaping tomorrow with you

The Linked Data Platform to Address, Describe and Interact with Things

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Linked Data Platform (http://www.w3.org/TR/ldp/)

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- "Simple approach for a read-write Linked Data architecture, based on HTTP access to web resources that describe their state using the RDF data model."
- Candidate recommendation in June 2014
- Typical scenarios
  - http://www.w3.org/TR/ldp-ucr/

W3C Working Group Note

Our LDP journey

Linked
Data
Platform

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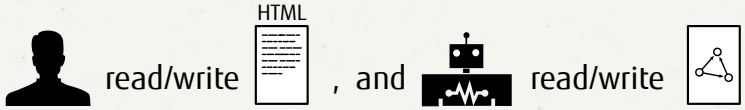
- APIs for Cloud management
  - Issues at that time
    - XML vs. JSON, Consistency, Uniform interaction semantics, Lifecycle, History
  - Solution: Dynamic Information Management (read/write Linked Data)
    - REST + Linked Data
    - Appreciated benefits
      - Silo-breaking, API-of-APIs, etc ...
      - Address, Description (links), Interactivity → Generic Client



- Linked Data Platform (LDP) standard at W3C
- Now considering application to other scenarios
  - e.g. sensing use-cases in healthcare
  - Seeing some new challenges ...

Reading

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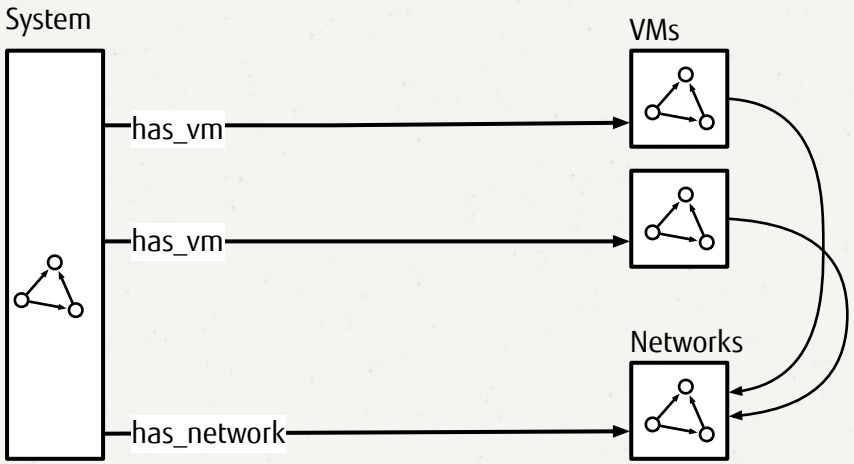

Addressable documents

i.e. projections of underling resources/things

Reading

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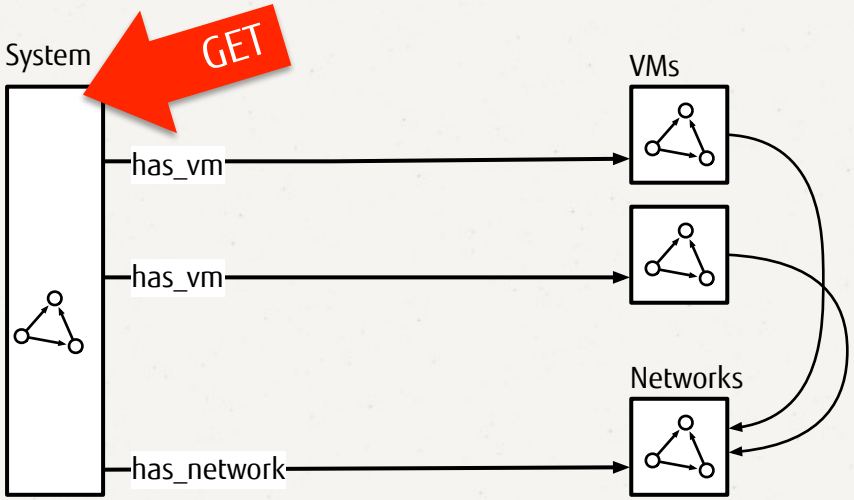

Uniform data processing model

Writing

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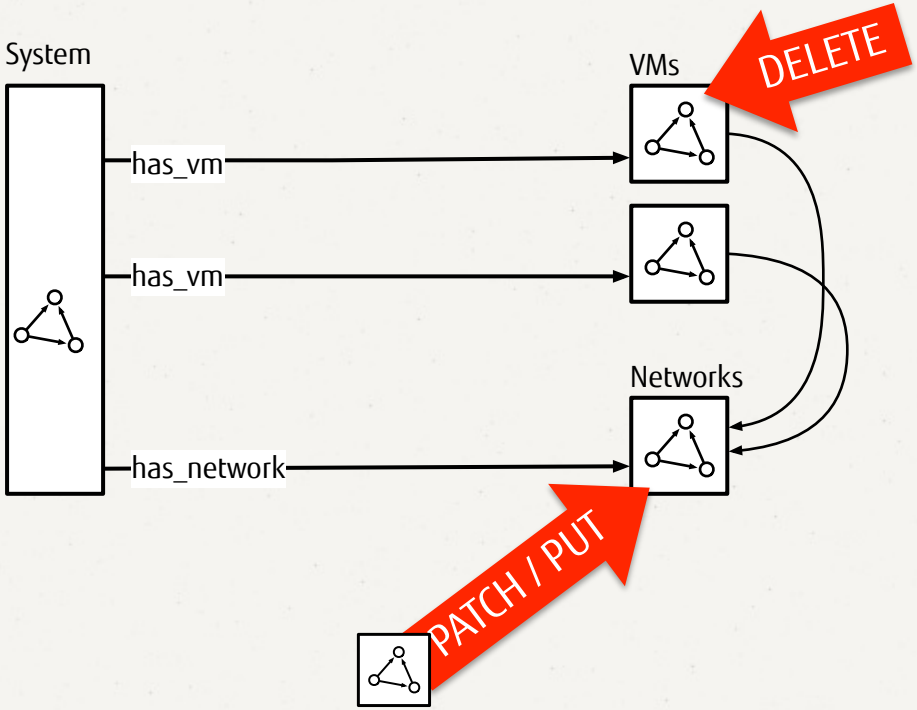

Updates and Deletes

Writing

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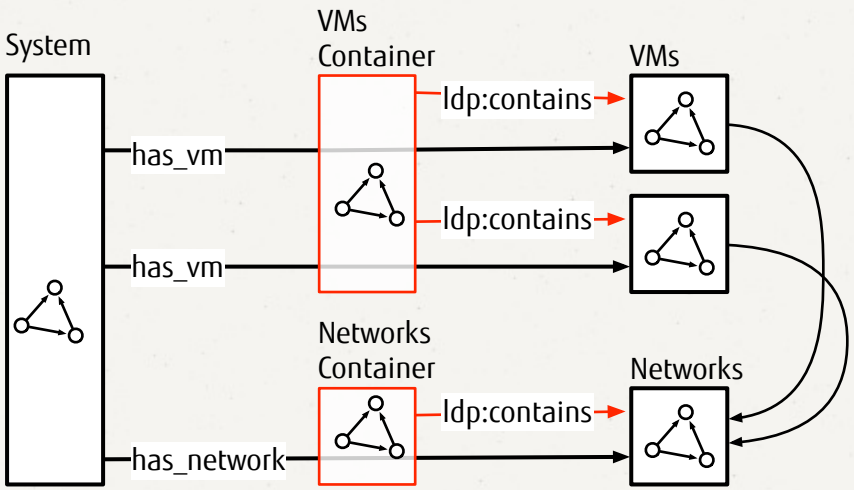
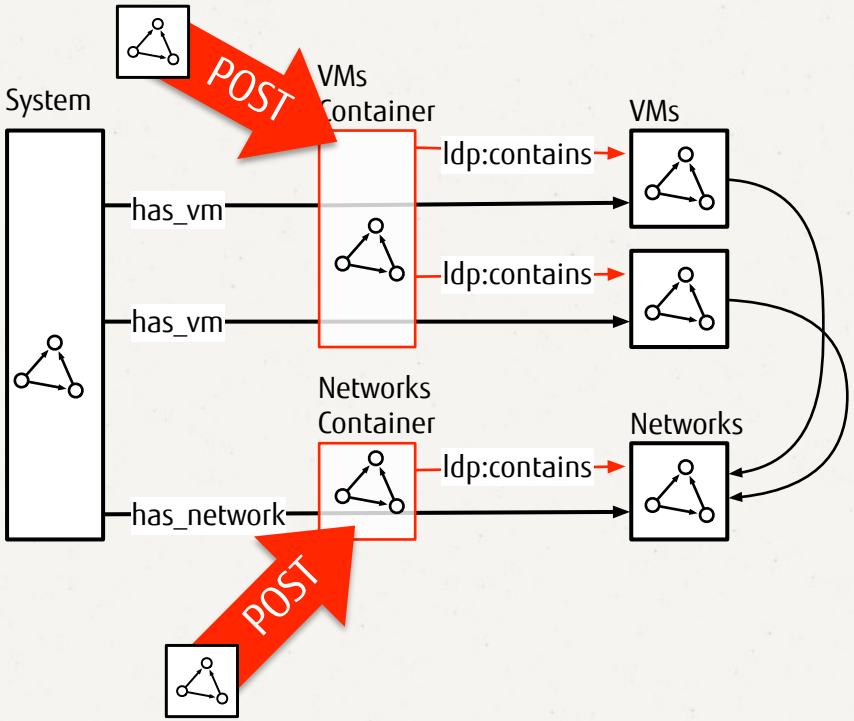


Containers

Writing



Creation

Writing

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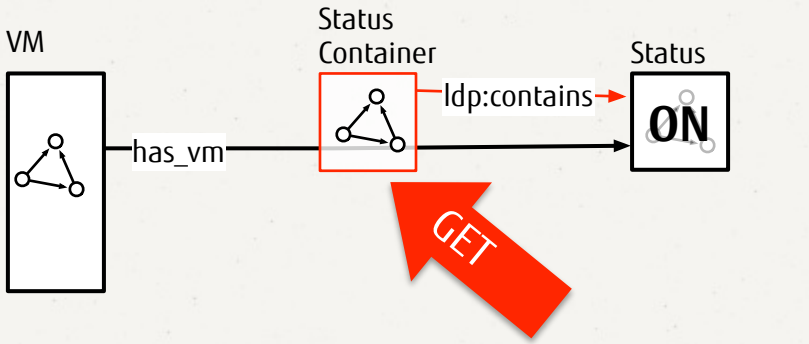

Introspection

Writing

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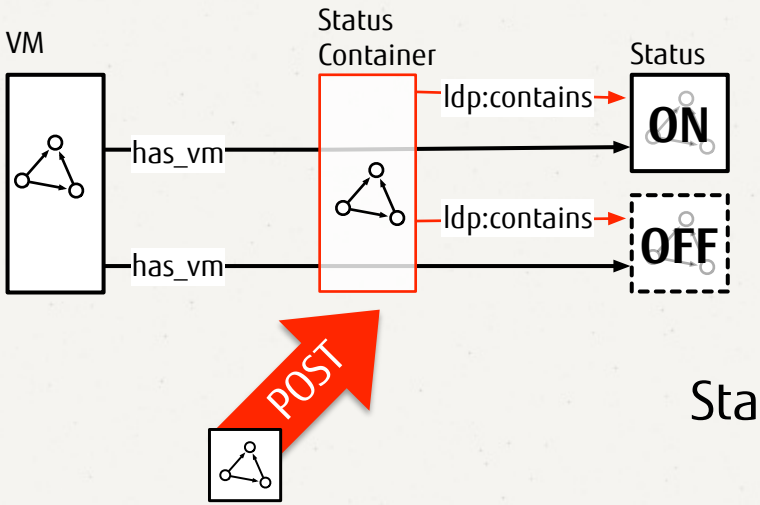

Status history

Benefits

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- Universality. Generic client
  - Address
  - Description
    - linking
    - data processing model
  - Interaction
    - introspection
    - clear semantics
- API of APIs
  - Linking between APIs
- SPARQL'ing the Cloud

WoT ?

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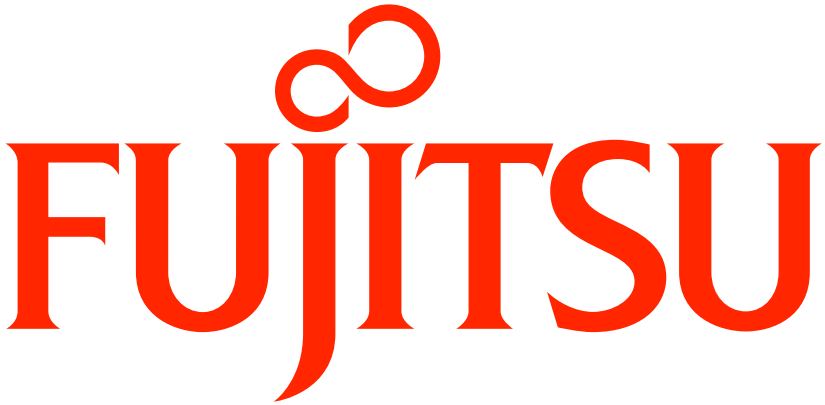
- LDP good
  - Container can be a receiver of streamed updates
  - Cloud Management of Sensors
    - i.e."the Proxy approach"
    - discovery, pairing
    - pushing directions
- But
  - LDP.next
    - Form language ? RDF constraints ?
    - Pagination
    - Filtering large collections
    - ...
  - Also
    - Cloud -> Gateway push ?
    - Websockets, MQTT, etc ?
      - 'streaming' container as a specialization of container
        - associated to a special processing semantic
        - 'upgrade' to a Websocket ?
        - works for read, write, or read/write ...
    - Alternative encodings of RDF (CSV-LD, ...)



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