Benefit of Linked Enterprise Data

Agenda

1. Vision
2. Linked Open Data
3. Linked Enterprise Data
   - Integration Approach beyond Semantic Web
   - Analysis Approach beyond Semantic Web
4. Examples of Practice
1. Vision

In times of an overload of information and apps semantic technology could enable a paradigm shift, where we don’t need to search any more but selected, relevant, personalized information comes to us in the context we need it.
Today: Like at a market
We search for information from different sources
... sometimes with a wide range ...
Tomorrow: „It is serverd ...“
That’s intelligent information logistics
1. Vision

Facing the challenge

- An ocean of ...
- Distributed data ...
- In different formats ...
- In different locations and silos ...
- With different interfaces ...
- Claiming discipline and time to manage ...
2.

Linked Open Data

A first step to make data public, interchangeable, reusable and meaningful to create great web applications and portals with mashups of data.
2. Linked Open Data

A step ahead to the final vision

- Meaningful …
- standardized …
- open …
- reusable …

- recombinable …
- linked …
- Data …
- but …
1. Linked Open Data

Not yet the full vision

- **limited to standardized RDF data** …
  Companies have grown legacy systems.

- **limited to standardized URIs for links** …
  Corporate data has no unique URIs, even the web has not.

- **limited scalability for corporate solutions** …
  Migrating linked data in a huge triple store multiplies the data.

- **limited to read access of data** …
  Corporate data is floating in millions of transactions.
3. Linked Enterprise Data

All internal and external enterprise data is virtually and bi-directional integrated and dynamically linked by semantic analysis of the data. It’s scalable, adaptable, simple and pragmatic.
3. Semantic Data Integration beyond Semantic Web

- Automatically derived data model (object types and attributes)
- Dynamic extension and merge of the entire data model
- Simple plugin principle (object wrapper)

“No initial effort in data or ontology modeling. Just plugin what you need.”
3. Semantic Data Analysis beyond Semantic Web

"Dynamic relations create meaning and business value out of data."

Semantically qualified and quantified cross-source links

Multiple reasons and relation weight make an n-tuple (quadruple)
3. Uniform Information Layer for Linked Enterprise Data

- Central access to virtually harmonized, classified and linked enterprise data

- "Don’t care about different formats and sources. Just select information semantically and via relations."

- Optional ontologies or classification

- Automatic synchronization via push and pull in the background

- iQser GIN Platform

- Client Connector API

- Content Provider API

- Data model

- Concept graph

- Object graph

- Service

- Service

- Portal

- Client

- Mobile

- Web
Linked Enterprise Data is already a proven approach in practice with various use cases for information logistics, business intelligence and evolved SOA.
4. Information Logistics for Process Intelligence

- Customer Request
- Context Information
- Problem Solution
- Customer Care Response

- Customer Data
- Contact History
- Product Information
- Problem Solution

- ERP
- CRM
- Exchange
- PLM
- DMS
- CMS
- Internet

- High complexity of service definition and orchestration
- Huge initial and maintenance effort
4.

Information Logistics for Process Intelligence

- Customer Request
- Context Information
- Problem Solution
- Customer Care Response

"Dynamic Information logistics combines process management and information retrieval for process optimization and quality assurance."

Query of automatically identified relevant information for the process context

- Service agreement
- Problem solution
- Bought products

Content Provider API
Client Connector API
Overview over current topics, aspects and facts

Overview over the evolution of hot topics

Filtered view on relevant news
Selected agency news as a template for an own article

Automatic initial research

Option for directly adapting information
4. Research Project for Process Portals

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www.nipro-projekt.org

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iQser AG
University of Ravensburg-Weingarten
University of Ulm

- Handling Processes
- Handling Knowledge
- Knowledge Management
- Usability Engineering
- Visualizing Knowledge
- Context-Awareness
- Semantic Technologies
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