Goals (other than “go try Topic Maps”…)

- Improved user experience (consistency)
- One stop shopping for information
- Better search based on harmonized metadata

- Improved integration model
- Reusing business logic (service)
- Simplifies application development

- Faster modeling of data for business
- Value added by interconnecting sources
- Harmonized business glossary
Business viewpoint: Pain points in current portal
(Portal supports users in operating and maintaining their telecom network)

- Users complain they cannot find the information they need
- Search is poor
- Users are used to more advanced functionalities on consumer portals and expect to have them in our portal as well
- Inflexibility of the architecture to provide
  - Different views (dynamic views based on context)
  - Linking capabilities – linking is mostly hard-coded
- Portal does not guide the users in any way
- High development costs because of inflexible system architecture
  - one-to-one integration model
  - no business logic reuse (redundancy)

Business goals 1/2

- Increased customer satisfaction and productivity through content discovery
  - Not only the users can find the information but they will discover information that they did not know of
- Enhanced user experience: information is presented in a user-friendly way and information access methods are user-friendly
  - Seamless user journeys from topic to topic, irregardless of “content domain” and owning organization
  - Customization: user sees only their products (but can also access full product portfolio if so wish)
  - Personalization: user can indicate which products (and releases) they are working on and will see personalized views
  - Filtering and sorting capabilities to drill down to desired information
  - Guiding the user to find the essential data rather than trying to provide all the possible data
  - Intelligent search (ontology-savvy search)
Business goals 2/2

- **Process benefits**
  - People who produce the contents for distribution do not have to be aware of all possible content that can be linked to their content – linking patterns can be automated
  - Navigation can be automatically populated

- **System benefits**
  - Data integration and mappings
  - No point-to-point integrations

Knowledge Integration System evolution

- PoC “Dynamo”
  - JSP App
  - Presentation
  - Application logic
  - KI logic
  - Data sources

- Portal app. “PIC”
  - Web Apps
  - Service
  - Manual messages
  - XML/ASCII

- Portal Wide, Other applications
  - Web Apps
  - Enterprise Service
  - Manual messages
  - XML/ASCII
  - App. X
  - Enterprise Ontology & Glossary

- 3 months
- 18 months
- a lot more months

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Heimo Hänninen / Topic Maps 2008
Cost savings by integration model and service approach

point-to-point

- App 1
  - integration
  - biz logic
  - analysis, integration
  - PDM
  - CMS

many-to-one

- App 1
  - integration
  - biz logic
  - KI Service
  - integration
  - PDM
  - CMS

Selecting technology to build KI application

1. complete In-house: build application on top of RDBMS
2. mid effort In-house: application & XML abstraction on RDBMS or XML-DBMS
3. lower effort In-house: application on "KI savvy engine/technology" ← way to go
Lessons learnt

- Topic Maps are flexible yet easy to understand and model
  - PSI type of concept is mandatory in a large company
- Back-end integrations are always more laborious than you think
  - policies, security, data ownership, pipelines, mapping, data quality...
- Invest in services, create interfaces as needed
- Colliding interests – gap between EA and business:
  - EA focuses on governance – top down
  - Innovations are made in grassroots projects to fulfill biz needs – bottom up
- Iterative mode of work, make mistakes early, find right people
- Creating a KI system takes two years – maturing process and changing mind set takes a decade
- Working ontology is a bottom-up effort, yet must keep in synch with corporate guidelines
- Demand SW vendors to support “Subject-centric computing”

Predicting future of semantic technology – Blue Ray or HD DVD dilemma?

- Google “study” - how unscientific is that? 😊

RDF vs. Topic Maps = 10:1

RDF: google for "RDF software" =10 800 hits
1st: Welcome to RDF Software, home of the Structural Pest Control System for Windows 😊
Topic Maps: google for: "Topic Maps software" = 938 hits

at Microsoft 20:1
"RDF" site:microsoft.com = 1140 hits
"Topic Maps" site:microsoft.com = 59 hits

at IBM 22:1
"RDF" site:ibm.com = 5 350 hits
"Topic Maps" site:ibm.com = 248 hits

at Oracle 450:1
"RDF" site:oracle.com = 3 600 hits
"Topic Maps" site:oracle.com = 8 hits

or perhaps some day a semantic gadget by
## Ontology technology choices

**LIFE IS HARD, BUT WE FEEL GOOD**

<table>
<thead>
<tr>
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<th>Topic Maps</th>
<th>RDF</th>
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<td>Technology maturity</td>
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<td>Acceptance in marketplace</td>
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<td>Trend</td>
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<tr>
<td>Which will be the winning standard</td>
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… most likely both Topic Maps and RDF will have their place in the sun

Thank you and questions, please