Using Topic Maps and SharePoint for Enterprise Information Integration.

Axel Borge & Graham Moore

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Agenda

- Enterprise Information Integration
- Posten Information Systems
- Posten use cases
- Solution Architecture
- Technical Challenges
- User experiences & Benefits
Enterprise Information Integration

- The ability to pull together information from multiple heterogeneous and disconnected systems in order to provide a seamless view.

- In a portal context this allows users to have all information about a given thing available in one place.

-Facilitates decision making and provides users access to the right information in a more timely fashion

- Done correctly, new systems can be integrated and new views created based on business requirements
Enterprise Information Integration

Multiple Views onto aggregated data

System 1  e.g. SharePoint
System 2  e.g. Archive
System 3  e.g. Another portal
System 4  User information

EII Layer
Enterprise Information Integration

- The key factor in EII success is the ability to know when two things are the same

- In addition, the ability to flatten the information space
  - Connect information of different types together
    - e.g.
      - A person and a document
      - A project and person
      - A interest and group

- If we can flatten and identify we can create a harmonised information model
Enterprise Information Integration

• Topic Maps provides a good basis for an EII system.
  • Flattening -> all things are topics
  • Identity -> Topic Maps has identity as a core property
Posten Information System

- Intranet with 26,000 user-Ids, each with a personalized “My page”
- Information sharing/access and collaborative workspaces

- Based on:
  - SharePoint Portal server 2003
  - TMCore topic map engine
  - Captaris Workflow
  - Intellisearch search server
  - Meridio archive system
Posten Information Systems

Multiple Views onto aggregated data via several applications

- SharePoint
- Postal
- Meridio
- Office

EII Layer (Topic Maps)

- SharePoint
- Meridio
- Captaris Workflow
- Org structure (PSR)
- People, (AD, PAGA, Telmax, …)
Networked Information – Networked Knowledge

Primary workspace

Main navigation

Area specific topic menu

Area specific or related news

Subarea navigation

Related documents regardless of source

Related areas

Users with special roles for Area

Associated workspaces
Advanced navigation tree populated directly from the TM in the standard dialog boxes in Office.

Simplify the way users navigate to find appropriate areas
Posten EII Use Cases

• People and Tasks
  • Get all info on persons connected to a specific department including the persons
    • Tasks
    • Related documents
Department

Person

Document

Task

Active Directory

SharePoint Portal Server 2003

Captaris Workflow
Posten EII Use Cases

• User connected to workspace based on role
  • Give me all my workspaces based on role
  • Sounds like a simple requirement, but not in SP…
Posten EII Use Cases

• The EII can be used to enhance a single system where the information entities are not flattened – SharePoint is a good example

• In any application the builder of that application decides what data structures are exposed

• These are not always suitable for the kinds of applications that are needed.

• By flattening the data into the topic map we have the missing connections to support our changing and evolving business requirements.
General news from the enterprise

All navigation provided by the TM

News from your department

Areas based on your department and your personal preference

All active task aggregated from different systems

Workspaces where you are playing a role
Technical Challenges

• Scaling
  • 250,000 topics, 1.2 Mill occurrences
  • 12,000 daily users

• Population of Topic Map from data systems

• Making topic map authoring seamless to SharePoint users
Technical Solutions to key problems

- Scaling – 80 pages per second. ~ 400 complex TM queries per sec.
  - TopicMap cache Qube – Integrated with topicmap update service
  - Distributed persistent caching of query results, intelligently removed upon appropriate updates
- Population of Topic Map from data systems
  - Batch/time based pull
  - Synchronized based on events
- Making topic map authoring seamless to SharePoint users
  - Use Networked Planet Constraint language to dynamically generate SharePoint forms
Different form fields and constraints based on the topic type.

Fields and captions controlled by the TM schema.

Advanced search and tree controls to add or delete associations.

Directly integrated with standard SharePoint controls.
Conclusion

• Using Topic Maps in conjunction with SharePoint and other third party systems allowed us to flatten the information space and thus support a wide range of information access and findability requirements.

• In addition, using Topic Maps as an EII platform enables the delivery and access of information from a variety of applications.

• SharePoint needs topic maps.