



Using Topic Maps and SharePoint for Enterprise Information Integration.



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NetworkedPlanet

Networked Information – Networked Knowledge

Agenda

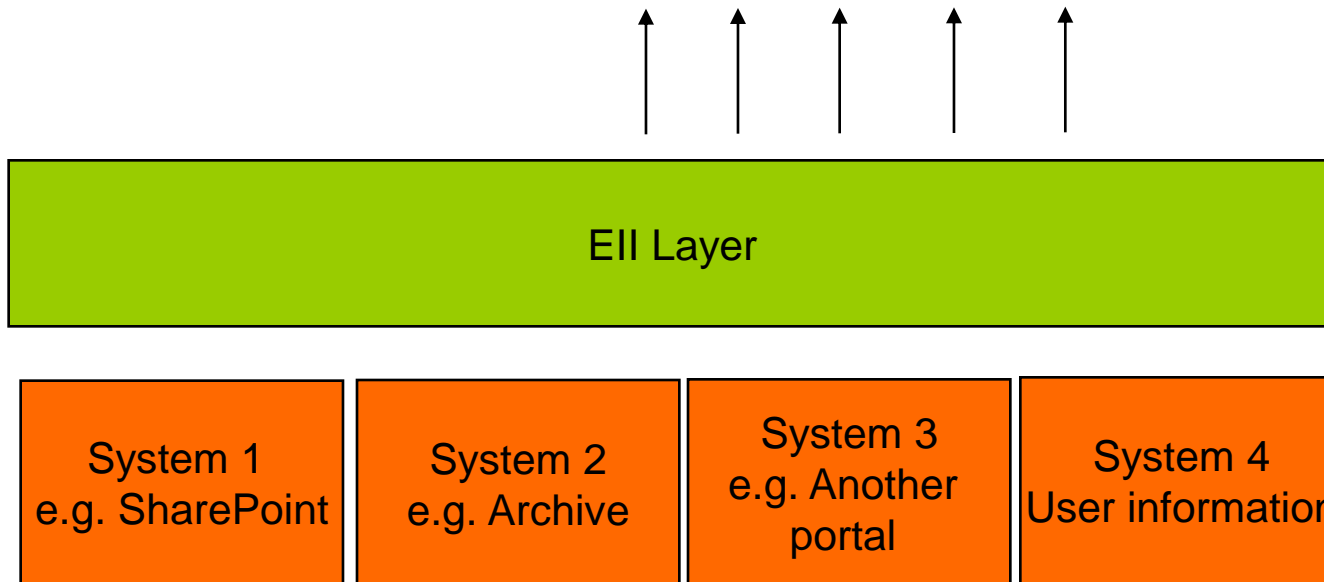
- Enterprise Information Integration
- Posten Information Systems
- Posten use cases
- Solution Architecture
- Technical Challenges
- User experiences & Benefits

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



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

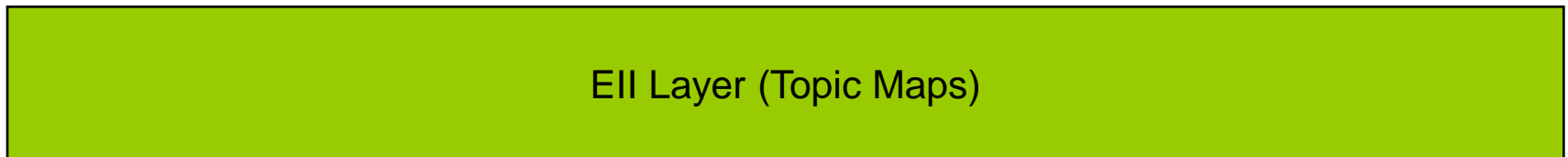
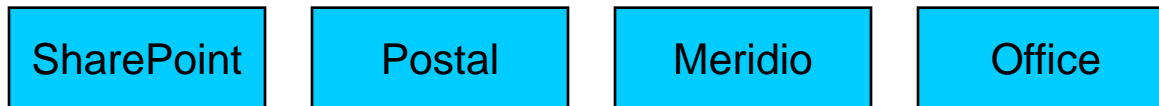
- Topic Maps provides a good basis for an EII system.
 - Flattening -> all things are topics
 - Identity -> Topic Maps has identity as a core property

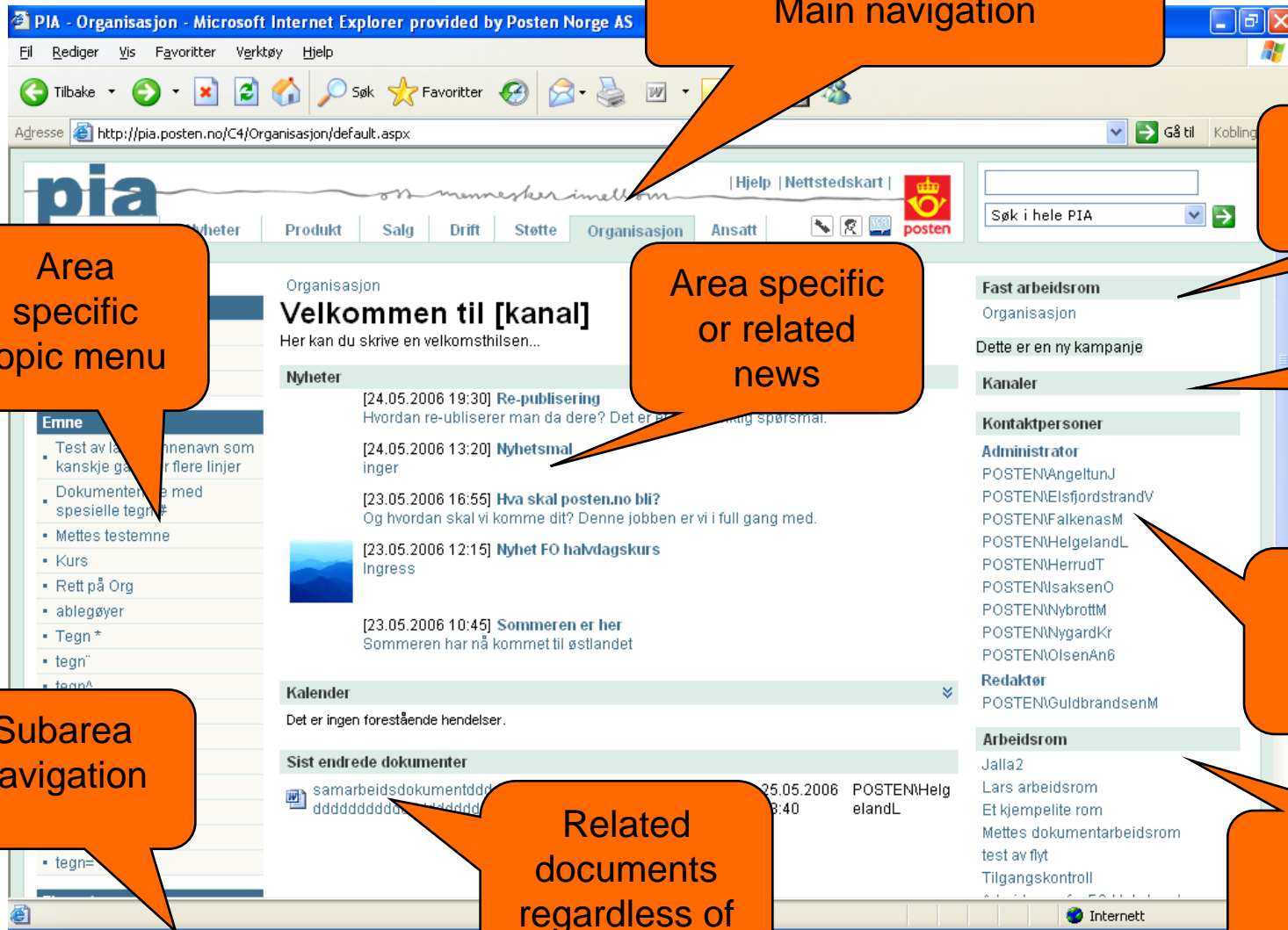
Posten Information System

- 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





Main navigation

Primary workspace

Area specific topic menu

Area specific or related news

Related areas

Users with special roles for Area

Subarea navigation

Related documents regardless of source

Associated workspaces

Research [v] [x]

Search for:
 [→]

Topic Map Knowledge Service [v]

[↶] Back [v] [↷] [v]

Topic Map Knowledge Service [^]

- Lexx Corporation Code Library (Project)**
 - Related Topics**
 - Customer: Lexx Corp.
 - Has Documentation: Code Library Architecture.doc
 - Has Documentation: Code Library Design.doc
 - Has Documentation: Code Library Project Plan.mpp
 - Has Documentation: Code Library Proposal.doc
 - Has Documentation: Code Library RFP.doc
 - Has Documentation: Lexx Code Library : Backup Procedure
 - Has Documentation: Lexx Code Library : User Guide
 - Has Site: Lexx Corp. Code Library
 - Participant: Jason Stewart
 - Uses Product: SharePoint
 - Uses Product: TMCORE SharePoint Module
 - Uses Technology: AJAX
 - Uses Technology: Topic Maps
- Lexx Corp. (Corporation)**
 - Related Topics**
 - Customer For Project: Lexx Corporation Code Library
 - Responsible For Document: Code Library RFP.doc
- Lexx Corp. Code Library (Process Site)**

Research [v] [x]

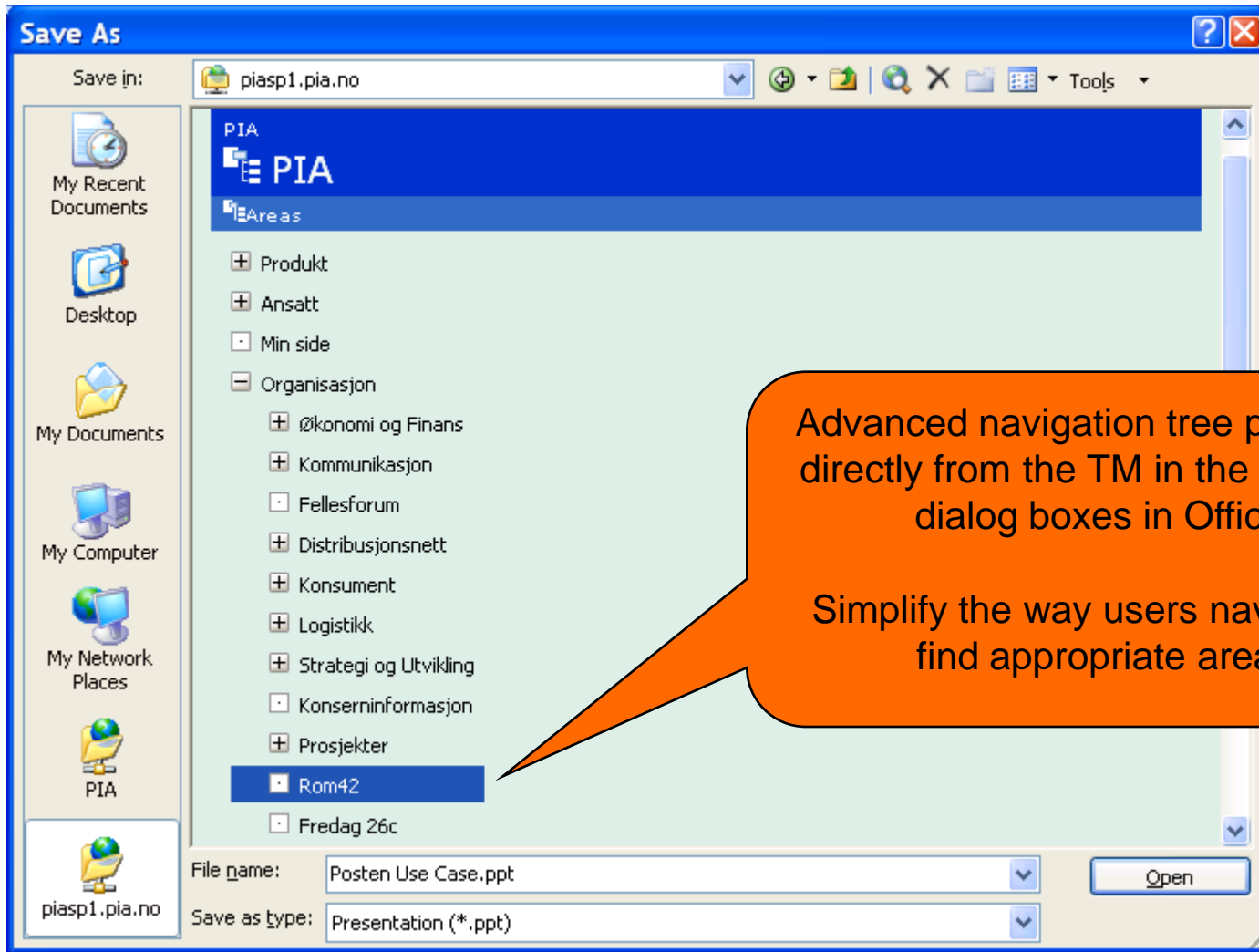
Search for:
 [→]

Topic Map Knowledge Service [v]

[↶] Back [v] [↷] [v]

Topic Map Knowledge Service [^]

- Code Library RFP.doc (Project Document)**
 - Metadata**
 - Last Modified Date:** 11/30/2006 1:04 PM
 - Take this metadata and... [v]
 - Related Links**
 - [Item Page](#)
 - [View Item](#)
 - Related Topics**
 - Owned By: Lexx Corp.
 - Owned By: Petter Ljundsberg
 - Relevant Process: Lexx Corporation Code Library

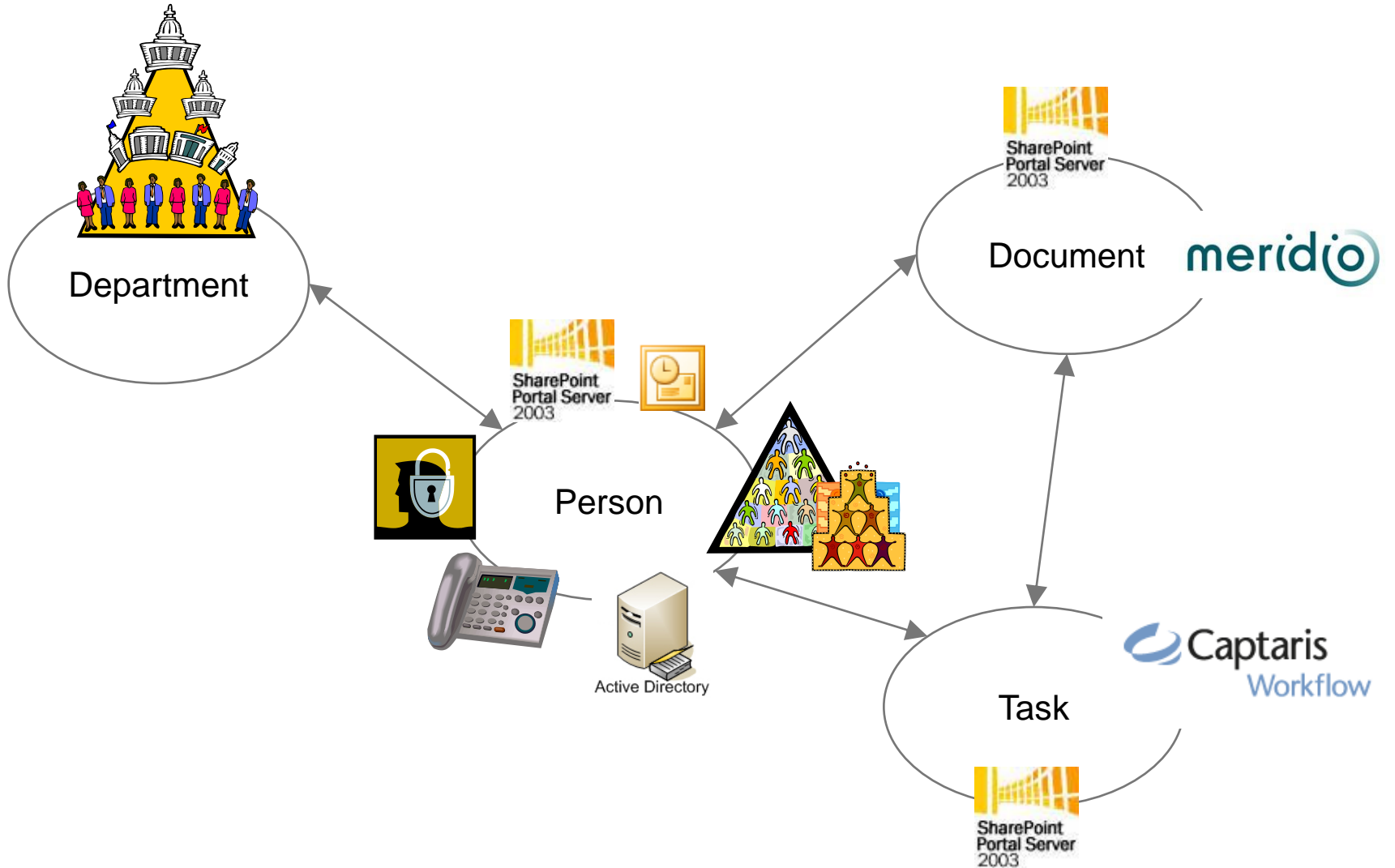


Advanced navigation tree populated directly from the TM in the standard dialog boxes in Office.

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



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

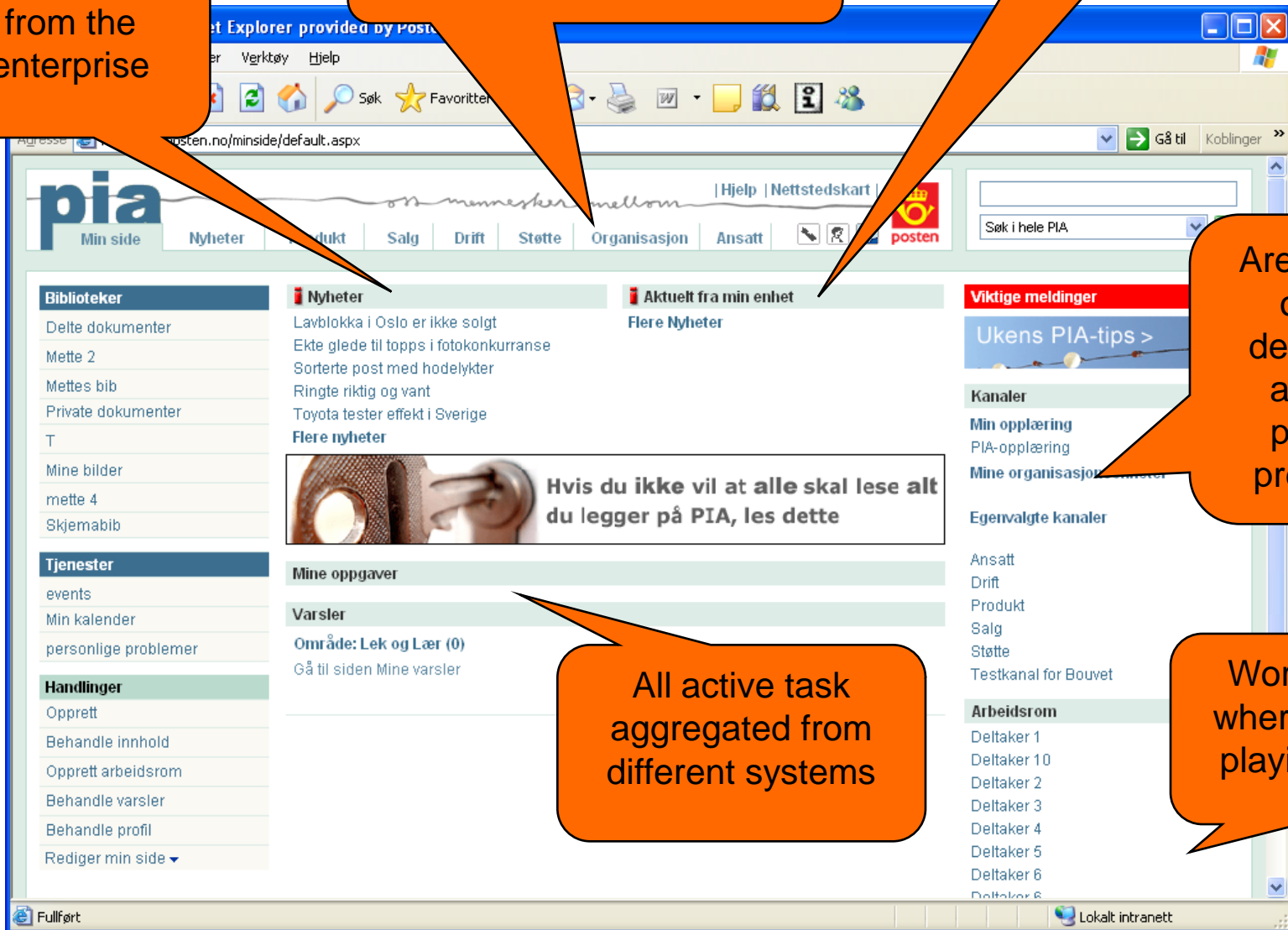
All navigation provided by the TM

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

Navn *
 Tittel *
 Beskrivelse
 Dokumenttype
 Publiseringsstatus *
 Eksempeldokument
 Vis som webside
 Publisert i kanal *
 Dokumentemne
 Krysspublisert til kanal
Publisering
 Forfatter
 Gjelder fra :00: :00:
 Gjelder til :00: :00:
 Tilknyttet sak
Styrende dokumenttype
 Styrende dokumenttype
 Publisert dato :00: :00:
Angi dato i D.M.A.A.A.A-format.

Velg Publisert i kanal

- Min side
- Nyheter
- Produkt
- Salg
- Drift
- Støtte
- Organisasjon
- Ansatt

adm

Tittel

- piasp1\administrator
- piadmin\administrator

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.