Qucosa Project

Building a Cross Media Repository

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$ whoami

- Ralf Claussnitzer
  - Computer Science
  - Library IT Department since 2008
    - Saxon State and University Library Dresden (SLUB)
- Software
  - Engineering, Development, Architecture, Operations
- Profiles
  - @claussni
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Starting Point

- Institutional Repository Qucosa
  - Multi-tenant
    - Universities, Schools, Research Institutions, Libraries
  - Based on OPUS 4 and TYPO3
    - Two-Tier: Web Service Backend + CMS Frontend
      - Simple IR Software
      - Complex Content Management System
- Status Quo
  - End-Of-Project = End-Of-Resources
  - Resource Discovery System failed to replace simple search
  - High demand for new features
  - Proprietary Legacy PHP
**Why Fedora?**

- **Focus on Infrastructure**
  - Out-of-the-box software focused on IR use cases and UI
    - Higher level abstraction
  - Loosely coupled services as key concept
  - Storage independent from Metadata schema

- **Problems we’re facing**
  - Evolving metadata schemas
  - Multitude of media types
  - Legacy storage hardware
    - Migration is not reasonable
    - Potentially invalid data (some might be lost)
Architecture (idea)

Internet

Services

...}

TYPO3

Presentation

Administration

OAI

Proai 1

Fedora

API-A

OAI

Elasticsearch

River

SWORD

API

Proai 2

API-M

JMS

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Further improvements

- Consequent use of JMS
  - SOA with Microservices
- No Elasticsearch River Index
  - Rivers are deprecated 😞
- Apache Camel
  - Data transformations
  - Message routing
- Fedora 4.x 😊
  - Workspaces
  - Graphs
  - Federated Storage
Thanks!
Questions?