



Discovering Sun in the Digital Libraries and Repositories Market

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Agenda

- Sun and the Library Market
- Today's Trends and Challenges
- Addressing Today's Challenges
- References and Plans

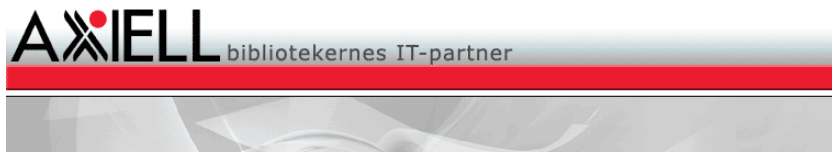
Sun's Digital Library Value Proposition

We Help Digital Libraries, Archives,
and Repositories Develop Open,
Scalable, Secure Environments for
Knowledge Development,
Discovery, Management, and
Sharing

Sun and the Library Community

- **Types of Sun Customers:**
 - > National and State Libraries & Archives
 - > Academic and Research Libraries
 - > Large Public Libraries
 - > Large Museums
 - > Library Consortia
 - > Very Large Primary and Secondary Organizations

Sun's Partner Library Solutions: Global and Evolving



The Digital Library "Map"

Sun PASIG
Community



Integrated Library System (ILS)

- Acquisition & ILL
- eJournals, Serials
- Cataloging
- Search and Discovery

Digital Library and Repositories

- Digital Asset Mgt.
- Data Curation & Collab.
- Content Repositories: EPrints, Duraspace, Islandora
- Web Archives & Long-term Preservation: OAIS Architectures, Ex Libris Rosetta, Tessella

Systems Consulting, Storage, and Data Management

Networking Identity Web Services

Scalability, Security, Sustainability, Sharability

Challenges Digital Libraries and Knowledge Institutions Face

- Data Management
 - > Long-term Sustainability and Permanent Access
 - > Content Growth – Francine Berman's “Got Data” Article...Zettabytes!
 - > Types, Value, New Uses of Content - Long-Tail Data, Curation Impact
 - > Disaster Recovery and Business Continuity
 - > Predicting Future IT Economic Models – Scalability, New Technology, Power Cost

- Growth of Repositories and Cloud Computing
 - > Federation and Connectivity – Trucks vs Datagrid?
 - > Service Level Agreements – Public and Private Clouds?
 - > Broader Access to New Services – Duraspace, Mellon's AVAN, Datanet Projects

Challenges Digital Libraries and Knowledge Institutions Face

- Content and Data Creation and Sharing Models
 - > Industry Collaboration and Standards Co-Development – SNIA
 - > New Funding Models and Data Use Requirements - Datanet
 - > Breaking Out of the University 'IT Grasp' into the Knowledge Marketplace: How much does the IT department charge to host a TB of data?
 - > Documents Tied to Data – Drug and Pharmchem Companies
- Functional Collaboration
 - > Communicating Around Datasets – Semantic Web Opportunity?
 - > User Rights – Authentication, Access, Authorization
 - > Immersive Education Technologies

Addressing the Challenges: Mutual Self-Interest

Goals: Lower Risk, Increase Innovation, Broaden Participation

- > Influencing Industry Standards
 - > Software Networking Industry Association (SNIA) 100 Year Archive Taskforce, Data Interface Standards like XAM for Interoperability

- > Open Computing and Storage
 - > Open Archiving, Integrated and Integratable Solutions
 - > Open Source Effort is a Subset in the Search for Solutions

- > Sharing Best Practices via Communities
 - > Sun Preservation and Archiving Special Interest Group (PASIG)
 - > Built on my 'Learning Experience' from the JA-SIG 1999-2004

The Focus on Flexible and Open Architectures

- **Focus on Tiered, Open Architectures —Not All Content has the Same Value**
 - > SAM, ZFS, Infinite Archive Solution (IAS), MySQL, Oracle DB, Tape
 - > Open Storage
 - > Focus on Policies and Procedures
- **Distributed Architecture and Business Continuity**
 - > Sun Modular Datacenter “Black Box”
 - > Cloud Computing
- **Rich Media and Digital Asset Mgt.**
 - > SAM, Tape, Low Cost Disk, JBODS
- **Identity, Workflow, and Data Management Consulting**
 - > Authentication and Authorization, Web Services for Repositories
 - > Partner and Consultant Expertise

The Sun PASIG (www.sun-pasig.ning.com)

Started in 2007 by Art and Mike Keller, Stanford Librarian

- Comparison of High-level OAIS Architectures, Workflows, and Use Cases
- Sharing of Best Practices and Community-developed Solutions and Technologies
- Cooperation on Standard, Open, Solutions and Replicable Reference Architectures
- Review of Storage Architectures and Trends and their Relation to Preservation and Archiving and Research Data Set Management
- Exposition of Relevant Commercial Third Party Expertise and Solutions

Topics of the PASIG

- 1) Storage and Data Management Architectures
- 2) Preservation and Long-term Sustainability
- 3) Repository Directions
- 4) Research Data Curation
- 5) Digital Asset Management
- 6) Managing Large eResearch Datasets
- 7) Cloud Computing

Sun Reference Architectures and Projects

Developing Collaborative, Replicable Reference Architectures For and With the Community and Partners

- Islandora (DuraSpace and Drupal via Prince Edwards Island)
- Ex Libris Rosetta
- Storage Archive Manager (SAM) and Infinite Archive Systems (IAS)
- DuraSpace and iRods (U. N.Carolina)
- DuraSpace and VTLS VITAL
- DuraCloud
- Tessella Safety Deposit Box (SDB)
- EPrints Cloud
- Modular Data Center for National Libraries and Archives

Public References by Topic

- Slovakian National Library
Broad Digitization, Sun Rays, MDC, 2.5PBs
- The Internet Archive
Web Archiving, MDC, x4500s, 2.2PB
- USC Shoah Foundation
Video/DAM, 2.5PB, Tape, SAM
- Oxford University
COE, Fedora Repository, Sun Rays, Google
- National Library of New Zealand
COE for Digital Preservation (Ex Libris Rosetta)
- US Library of Congress
Broad Digitization, SAM-QFS, x4500s, Tape
- New York U.
DAM, x4500s, SRB, DSpace
- French IN2P3/CNRS
eScience Data Set Preservation
- The British Library
Aleph Library System
- The French National Library
Broad Digitization, SAM, Tape
- Alberta Digital Library
COE for Long-Term Sustainability, Storage, SAM
- China National Library
SL8500 Tape, T2000 Server
- Harvard U.
SAM, Storage

Calendar 2009 Event Outreach

- Fall “All About Repositories” Webinar Series
- iPres – October 5-6
- Sun PASIG #6 San Francisco – October 7-9
- Educause – November 2-5
- MCN – November 11-15
- Sun HPC Consortium – November 15-16
- Digital Curation Conference – December



Thank You!

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