



# Discovering Sun in the Digital Libraries and Repositories Market

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# Agenda

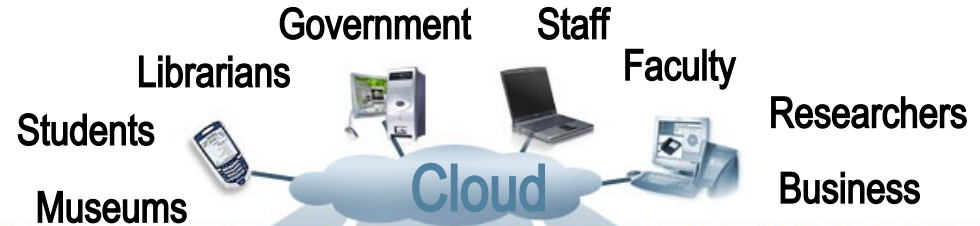
- Sun and the Library Market
- Today's Trends and Challenges
- Addressing Today's Challenges: Working with Sun
- PASIG and Future Plans

# 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

# 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



# 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

# Calendar 2009 Events

- Fall “All About Repositories” Webinar Series
- Educause – November 2-5
- MCN – November 11-15
- Sun HPC Consortium – November 15-16
- Digital Curation Conference – December

# The Sun PASIG ([www.sun-pasig.ning.com](http://www.sun-pasig.ning.com))

Founded 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

# PASIG Quo Vadis?

- 1) Storage & System Architectures – Scalable, Practical, Predictable
- 2) Repository 2.0: Principles, Architecture, Patterns
- 3) Repository Best Practices
- 4) Reciprocal Reviews & Consulting
- 5) Bootcamp: Preservation & Archiving Training Services
- 6) Consulting & Implementation Services
- 7) ETD Connection to Administrative Computing



**Thank You!**

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