Sun StorEdge™ QFS & SAM-FS 4.0 Advanced Data Management Solutions

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AGENDA

- Your Contacts at IEEE
- Data Management Challenges
- QFS/SAM-FS Solutions
- Recent Case Studies
- Futures
- Q & A

Come Find Us at IEEE !

- Sun Exhibit Space #13
- Harriet Coverston, Distinguished Engineer
  - Architect of QFS/SAM-FS, LSC Co-Founder
- Gregor Matthews, Engineering Manager
- Don Crouse, Founder of LSC
- Stephanie Meagher, Product Marketing

Sound Familiar?

- Exponential data growth
  - Terabytes of online data
  - Petabytes of nearline data
  - Millions of files
- Increasing performance requirements
- Increasing operational costs
- Conventional backup does not work
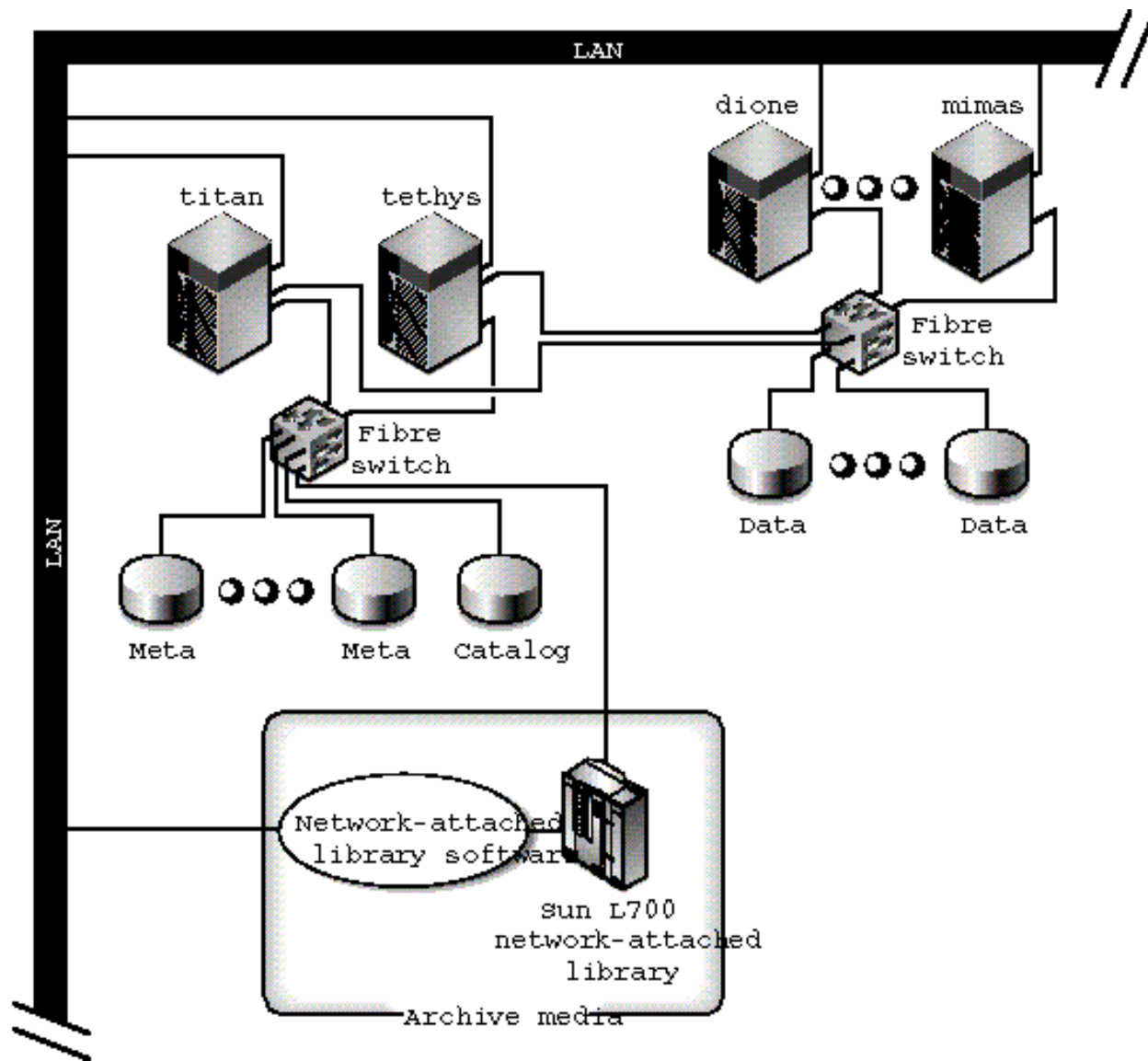- Disaster recovery is not an option

Some Advantages of QFS

- Virtually unlimited scalability
  - Bound only by size of your nearline and offline storage
- Fast file system recovery
  - Window of vulnerability dramatically closed
- Minimizes operational expenses
  - Data consolidation helps to forgo and reduce costs
- Supports device speeds
  - "Frictionless I/O" –Mike Mott, Boeing

How Do We Do It?

- QFS knows its topology
- Metadata and data are separated
- Automatic activation of direct I/O
- Built-in volume management
- It's all about allocation
  - Striped and round-robin allocation
  - User selectable allocation (stripe width and LUN allocation)
  - Variable block size to match hardware

QFS Shared File System

About Shared File System

- One file system shared between multiple hosts

- Local path I/O – data is transferred directly between all hosts and disks

- Performance scales w/multiple hosts and additional storage

- Highly Available

Who is SAM?

- Policies based on age & size
- Data can be grouped by users, owner, path, wildcard, and/or size
- 4 copies created from source and migrated across media and geography
- Restore files as soon as metadata restored
- Always store files in OPEN format!
- Archive log allows for versioning and restoration of deleted files

Some SAM-QFS Solutions

- High Performance DataShare

- Backup Cache

- Digital Asset Management

- Archiving and Record Retention
  - Infinite Mailbox
  - Regulatory Compliance

Just Ask…

- Lockheed Martin & Boeing
- San Diego Super Computing
- Questerra & Earth Satellite
- Yahoo & WGBH
- PEMEX, Chevron, & Shell/NAM
- Teramedica & Perlegen
- Audi, BMW, & Daimler Chrysler

4.1 and Beyond…

- Continuous, demand-driven archiving
- Sun Cluster Certified
- Oracle RAC Certified
- Additional Instrumentation and Monitoring
- Distributed SAM-FS

Q & A

- How can we help you to solve your data management challenges?

- What is your experience with QFS/SAM-FS so far?

- What enhancements would you like to see going forward?

- …

Thank You!!