

Reducing Storage Costs and Improving Efficiency During Tough Economic Times

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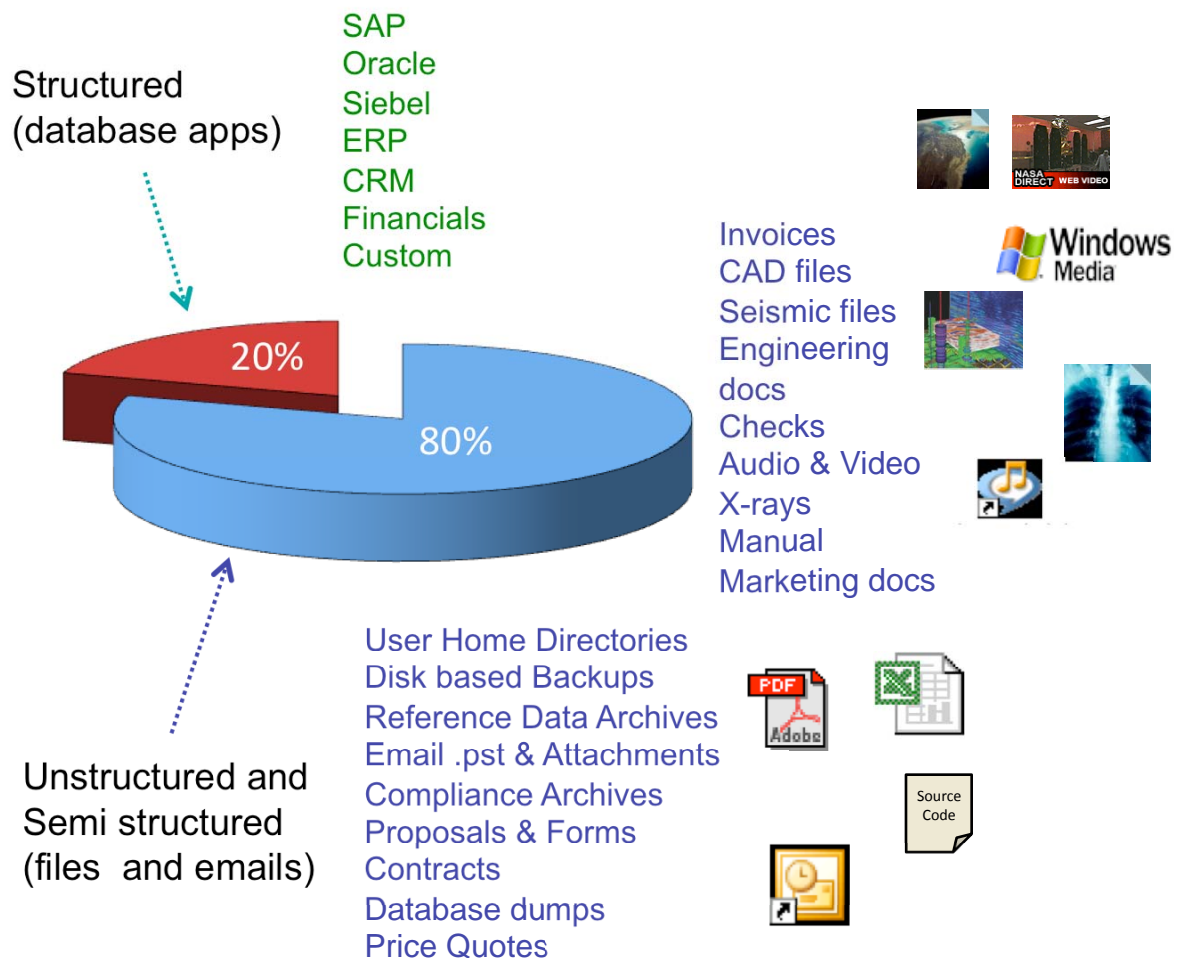
The Problem: Incredible Data Growth


- **Unmanaged Data**

- Billions and billions of files
- TB's to PB's to EB's of storage
- Hundreds of file formats
- Capacity needs growing >50% per year

- **Impact**

- Tremendous cost burden
- IT operational inefficiency
- Corporate risk





SNIA

SNW

COMPUTERWORLD

April 6-9, 2009
 Rosen Shingle
 Creek Resort
 Orlando, Florida

Yet, Budgets are Tight

Baseline “Predictions: IT Spending Slashed”
 December 2008

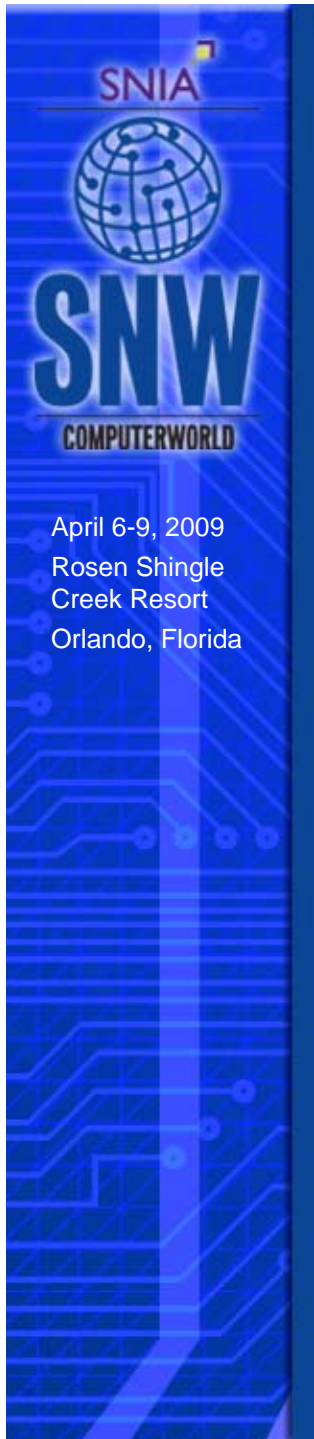
COMPUTERWORLD “Recession puts knife to IT budgets”
 March 2009

NETWORKWORLD “IT budget ‘09: Spending down”
 January 2009

InformationWeek “US IT Jobs Fall”
 January 2009

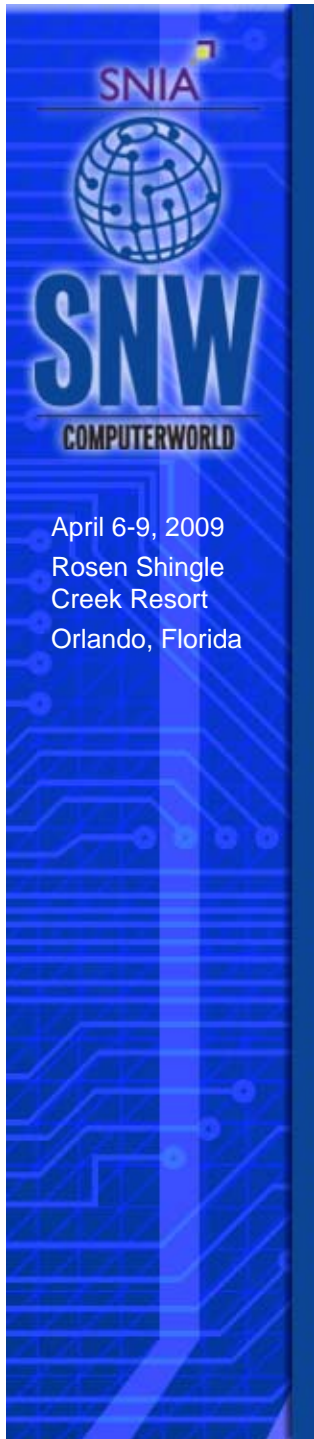
 “Storage budgets shrink as capacity grows”
 January 2009

ByteandSwitch “Economic Downturn Hits Storage Spending”
 Storage Networking and Beyond
 December 2008



The Solution: Active Archival

- Optimizes storage OPEX and CAPEX
 - Reduces cost per TB and delivers real storage TCO
 - Grid-based active archives scale to PB's of low cost storage and compute resources
 - “Pay as you grow” solution spreads cost over many quarters or years
 - Use of low cost, heterogeneous server and storage platforms
 - Low cost secondary storage saves 4X – 7X per TB than high storage performance storage (depending upon vendor)
 - Eliminates vendor lock-in and allows “over-time” vendor selection flexibility
- Provides the ability to always access data securely
 - Cuts the cost of data access
 - Delivers the ability to recover critical content
 - Data and content for conducting business is always available
 - Identity-centric systems combined with encryption deliver better security than primary at a lower cost



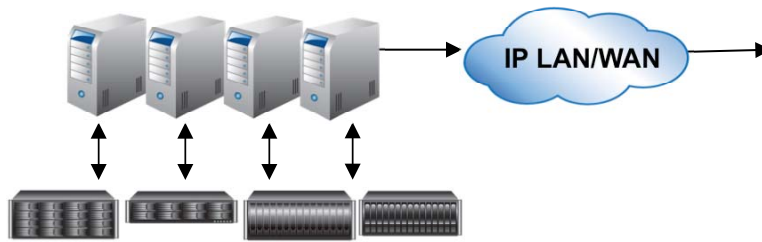
The Solution: Active Archival

- Reduces the cost of business risk
 - Constant availability
 - Compliance, regulatory, and governance coverage
 - Easy search and e-discovery
- Automated policy-based design
 - Policy automated storage functionality reduces manpower needs
- Provides a Greener overall storage environment
 - Reduced cooling and power requirements of secondary storage lowers costs AND carbon footprint
- Reduces backup costs, shortens backup windows, and improves storage and server performance

Typical Active Archival Solution

Production

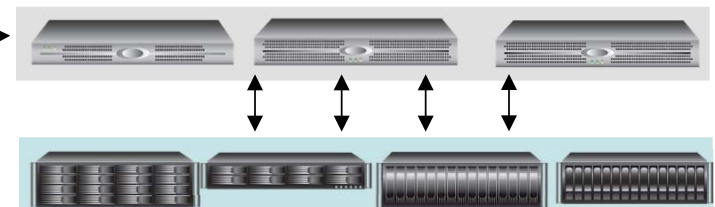
Hosts – Windows, Linux, HP-UX,
 AIX, Solaris, Virtual Servers



Primary Storage
 SAN, DAS, NAS

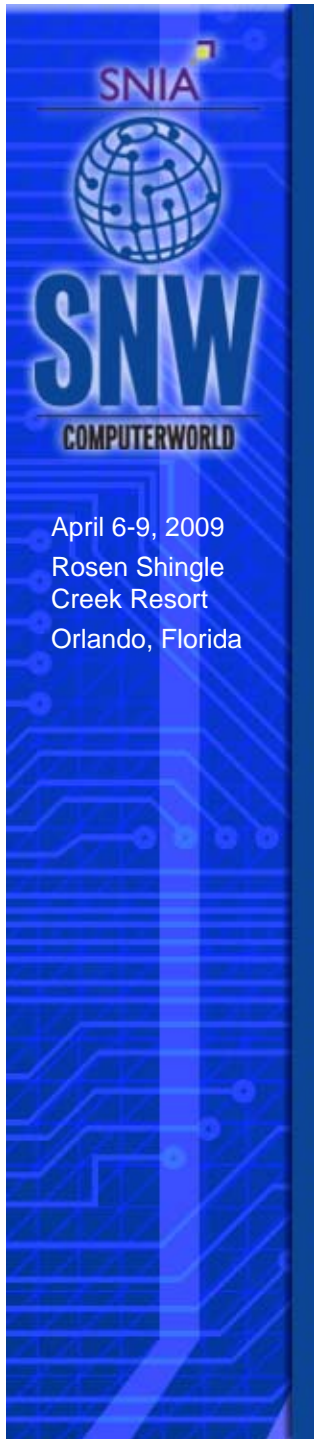
Active Archive Solution

Grid-based server, software command
 layer, and metadata management



**Storage Virtual Pool: Vendor agnostic
 low cost secondary storage**
 SAN, NAS, iSCSI, and DAS

- Support existing production environments
 - Multiple OS Support: Windows, Linux, Solaris, HP-UX, AIX, and Virtual Servers
 - Automatic migration from high cost primary storage to low cost secondary storage
- Heterogeneous storage support and storage footprint reduction
- Automated policy-based storage management
- Security and encryption
- Indexing, search and e-discovery
- Compliance, data retention, data disposition, and audit management
- Highly scalable and highly fault tolerant grid-based design



Best Practice #1: Analyze Business Requirements

- OPEX and CAPEX true measure of storage TCO
 - Cost per TB is only the tip of iceberg – PB's are here!
- Assess unstructured content strategy:
 - The ability to recover critical content
 - Providing the data and content for conducting business
- Determine compliance needs and the litigation risk
- Distinguish between what is mandated and required by:
 - Government requirements
 - Corporate policy
 - Business efficiency
- Organizations must proactively determine balance between legal, compliance, and user needs

Best Practices #2 – Consolidate Content/Platforms through Archiving

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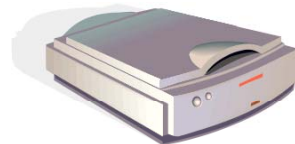
E-Mail Archiving



Rich Media



Imaging



Report (Print Stream) Archives



ERP Systems

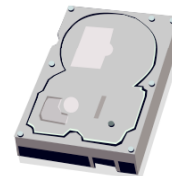


Content Archiving

Files



SharePoint Archiving



Active Content



Active Archive



Best Practice #3: What and Why to Keep it?

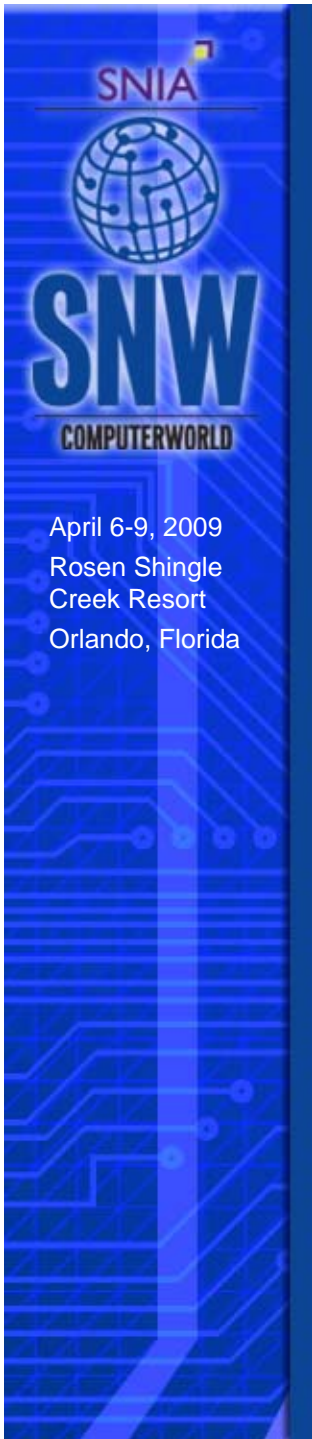
- **Government mandated content**
 - Regulations
 - Hazardous materials
 - Broker/dealer communication
 - Other
- **Corporate policy information**
 - Contracts and Core Business content
 - Correspondence about HR disputes
 - Office documents and email communication
 - Financial transaction records
- **Employee-retained for business efficiency**
 - Employee documents
 - Project history
 - Reference material
 - Other

Mandatory preservation

Optional preservation

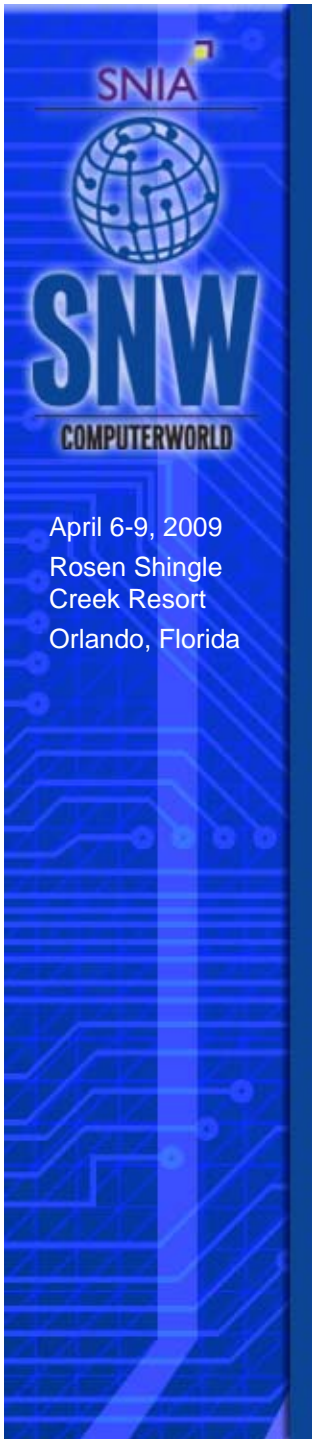


Companies must distinguish between what is mandated by the government vs. what is mandated by corporate policy vs. what is required for business efficiency



Best Practice #4: Manage Unstructured Data in 7 Stages

- 1 Develop a strategy and a program oversight team consisting of legal, finance, IT and business managers.
- 2 Build and draft policies to detail enterprise needs for archiving and record retention to satisfy business, regulatory, legal and fiscal requirements.
- 3 Build a file plan and retention schedule with access rights and document types.
- 4 Determine functional and technical requirements.
- 5 Select and deploy an Active Archiving Storage solution that works with current infrastructure.
- 6 Communicate and train staff. Publish policies, retention schedules and procedures.
- 7 Establish continuous audit and review processes.



Key Features and Benefits of an Active Archival Solution

Cost Savings

- Archive data from high cost primary storage to low cost secondary and off-line storage to dramatically lower storage CAPEX and OPEX
- Comprehensive policy management to automate all functions and save on OPEX
- Green solution to lower power and cooling costs

Security

- Multiple and easy to use secure data access and secure data sharing between individuals and groups
- Encryption and ID-centric access controls to insure proper security
- Integration with existing AD and LDAP access and security controls

Content

- Auditable data access and authentication tracking
- Data permanence and preservation to meet compliance, governance, and regulatory demands

Efficient

- Policy-based management, self-configuration, self-healing design
- Automation of processes to dramatically reduce OPEX
- Reduce secondary storage footprint to further lower CAPEX

Scalable

- Scalable storage to 10's of Petabytes and billions of objects/files
- Grid-based design for unmatched fault tolerance and scalability using commodity server and storage hardware across multiple locations

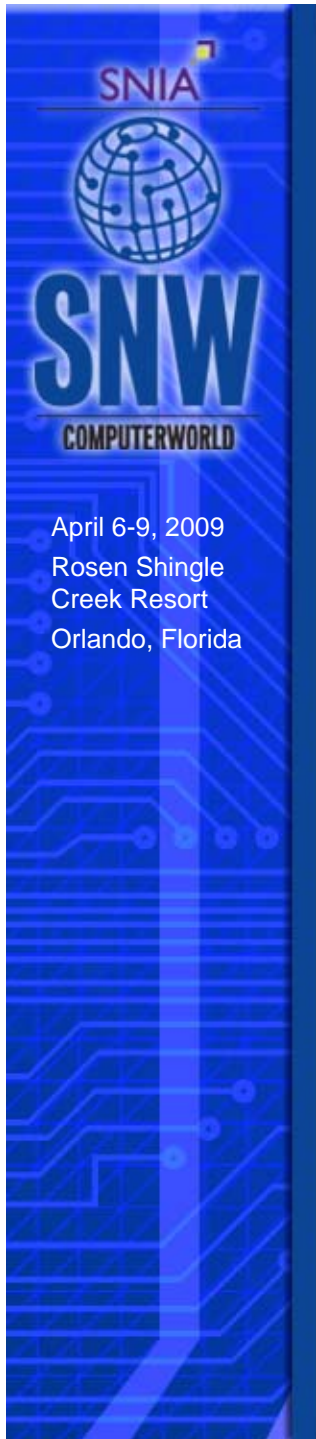
Search

- Comprehensive integrated search for text-based and non text-based file types
- Built-in indexing and search to reduce e-discovery costs

Summary

- Data is growing exponentially
- Current economic climate is dramatically effecting IT budgets
 - Costly impact on storage, compliance, and IT CAPEX & OPEX
- Implementing active archiving more than a regulatory and compliance issue
- Best practices incorporate active archival for overall better data and storage management
- Best active archival strategies substantially reduce CAPEX and OPEX while solving regulatory and legal issues
- Now is the time to implement active archival solutions





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