



## Regulatory Compliance Solutions for Security and Privacy

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# Hitachi and Hitachi Data Systems

## □ Hitachi Ltd

- Founded 1910
- One of the World's Largest Integrated Electronics Companies
  - Manufacturer of over 20,000 products
  - Over 1,000 subsidiaries
  - Over 300,000 employees

## □ Hitachi Data Systems

- Hitachi, Ltd.'s focal point for storage infrastructure solutions
- Recognized by Gartner in December 2003 as the market leader in high-end storage



# Regulations

## □ SEC 17a-4

- Objective
  - Defines what types of records must be stored and for how long (retention period), and describes the media requirements
  - Records associated with securities trades, customers, and accounts
- Coverage
  - Broker / dealers, members of exchanges within the US financial services industry

## □ HIPAA (Health Insurance Portability and Accountability Act)

- Privacy Rule
  - **Everything (from a patient's address to his/her medical records) must be kept confidential**
  - Certain health care records must be retained for a minimum of **six years, or two years after a patient's death**
- Security Rule: Covered entities must:
  - **Ensure the confidentiality, integrity and of all electronic protected health availability information they create, receive, maintain, or transmit**
  - Protect against any reasonably anticipated threats to the security or integrity of such information
  - Protect against any reasonably anticipated uses or disclosures of such information that are not permitted.

## □ Gramm-Leach-Bliley Act

- Financial institutions have an obligation to develop sufficient safeguards
  - to insure the **security and confidentiality of customer records and information;**
  - to protect against any anticipated threats or hazards to the security or integrity of such records; and
  - to protect against unauthorized access to or use of such records or information which could result in substantial harm or inconvenience to any customer

## □ And Others

# Message Archive Solution

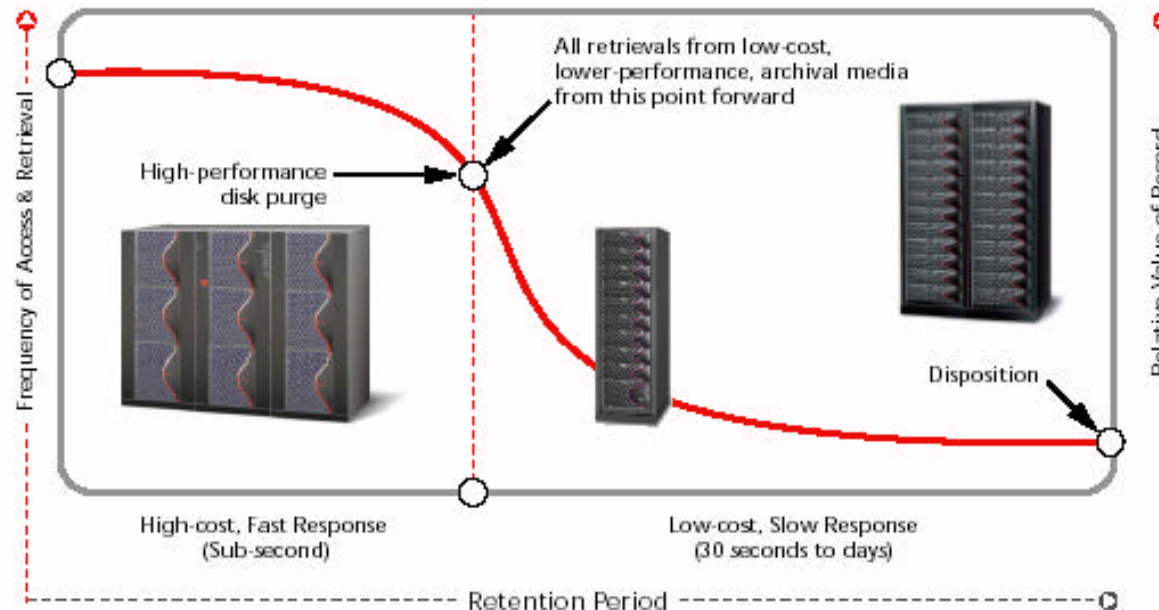
## Introduction: Message Archive for Compliance

### □ SEC 17a-4 Requirement

- To preserve for a period of **three years**, and/or preserve in an **accessible place for two years**, electronic communications relating to the business of the firm, including inter-office memoranda and communication.

### □ HDS's Approach

- Alliance with Message Archive Software Vendor
- Management of Data Life Cycle
- WORM capability in Storage System

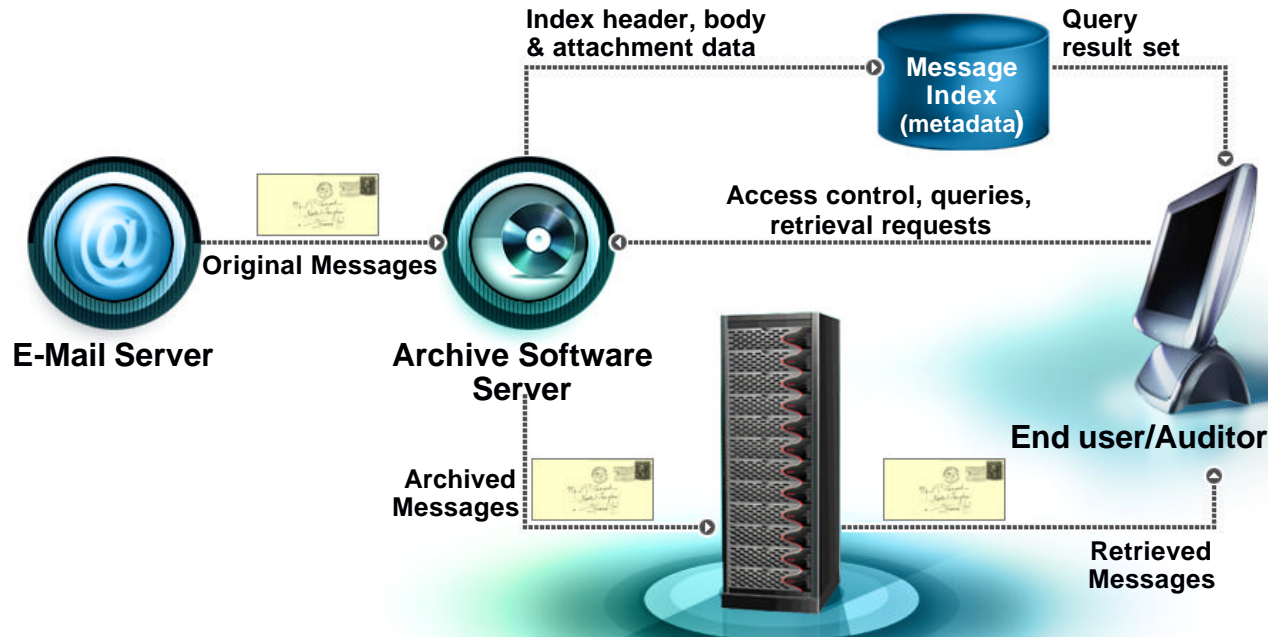


# Message Archive Solution

## LDEV Guard :“WORM” Function

### □ LDEV Guard software:

- Eliminates the need for special-purpose storage to comply with data retention regulations
- Enables secure and compliant storage environments for z/OS and Open Systems applications
- Locks disk volumes as “read-only” for proscribed retention period
- Assigns access attributes to logical volumes
- Protects logical volumes against read and write operations



# Storage Area Network (SAN) Security

## □ Management Security

- Access Control for Management Software
- Access Control for Storage Network Resources
- ...

## □ Network Security

- IP Security for Storage Resource Management Interfaces
- Fibre Channel Security for Data Transactions Interfaces

## □ Stored Data Security

- Confidentiality of Stored Data

# Storage Area Network (SAN) Security

## ~ Management Security

### □ Issues Examples

- Storage administrators who manage SAN configurations may not necessarily need to have access to data inside storage systems
  - There are auditing requirements regarding storage usage, but it may cause privacy problems
  - ....
- Easy to Use and Secure Enough Access Control is Required

# Storage Area Network (SAN) Security

## ~ Network Security

❑ Fibre Channel network used to be secure just because the protocol was not known to many people

→ SAN are widely deployed and may be no longer secure in near future

❑ Several Standards are coming out

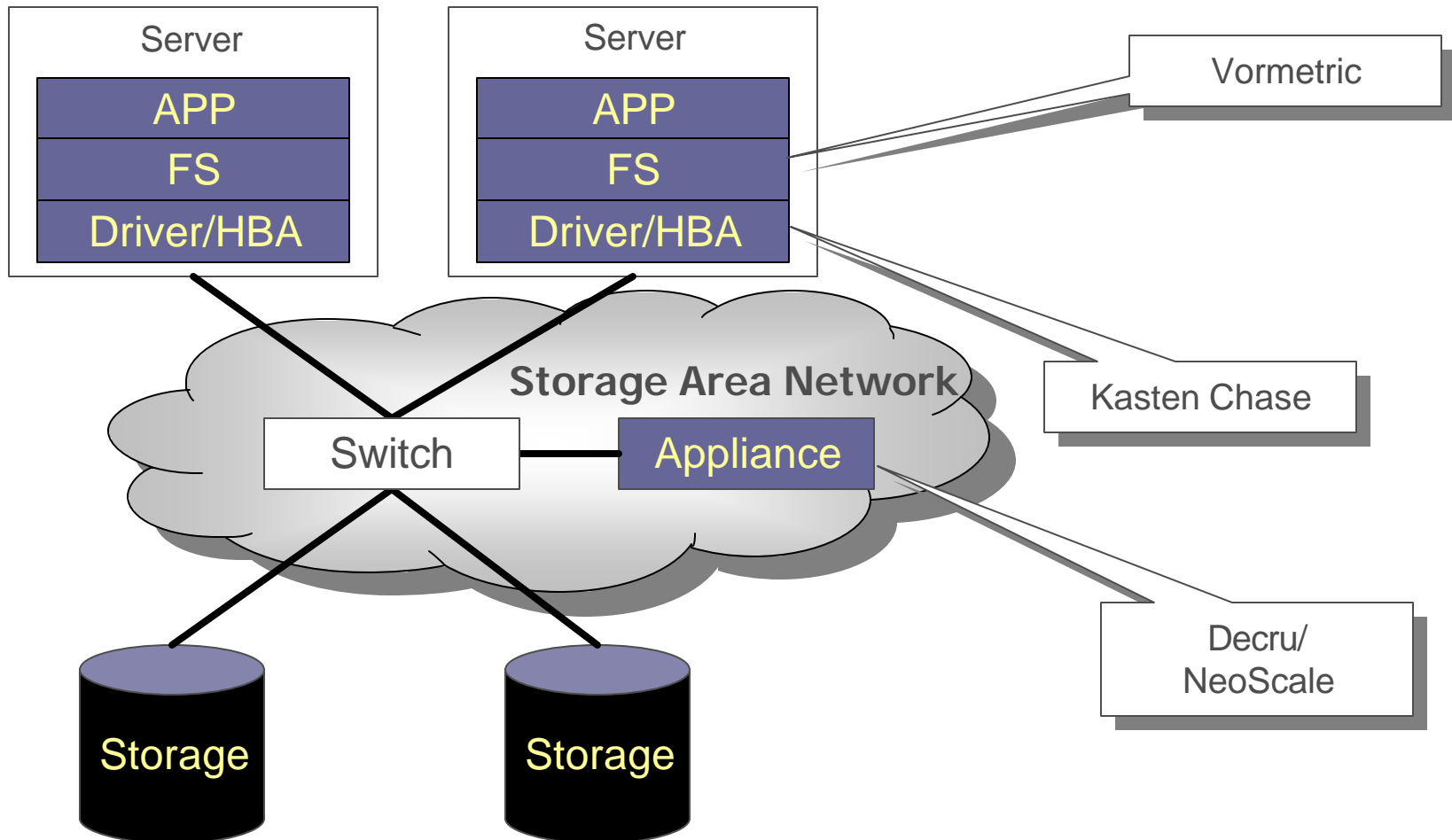
- iSCSI mandates IPSec implementation
- FC-SP (Fibre Channel Security Protocol, which includes authentication protocols between devices in SAN environment) is being developed

❑ Securing Everything is Technically Easy, but it should not be Overkill



# Storage Area Network (SAN) Security ~ Stored Data Security

## Four Major Vendors for Data Security



*Thank you for your attention*

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