



HP WORLD 2004  
Solutions and Technology Conference & Expo

# Changes in the World of Information Lifecycle Management



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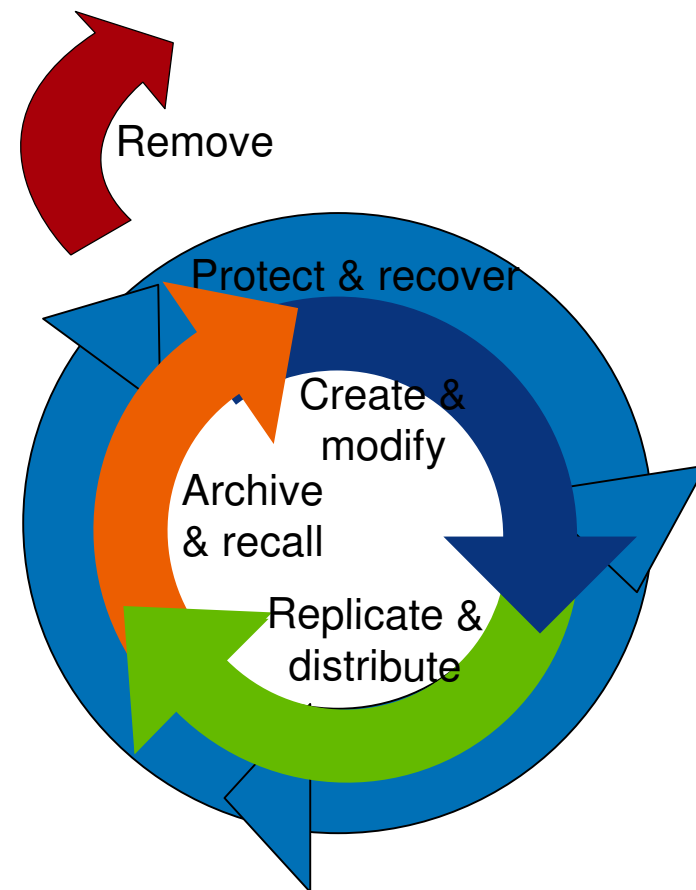
# Today's Agenda

- ILM Overview
- The StorageWorks grid
- Enterprise Information challenges
- HP StorageWorks Reference Information Storage System
- Summary & Questions



# Information Lifecycle Management

- Actively managing information:
  - From creation to deletion
  - According to its changing business relevance over time
  - With automation to enforce application-specific policies
  - To align with business and application needs



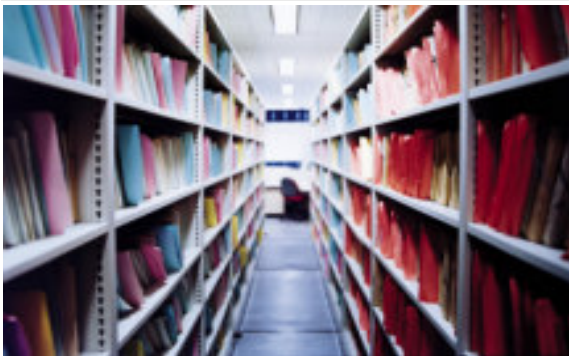
Information Lifecycle Management

# ILM addresses the three major information management challenges



## Retention Management

- Corporate and government regulations require retention policies
- Companies placed under subpoena to produce email and documents in legal actions taken against the company



## Data Management

- Information growth continues at an accelerated rate
- Need to significantly reduce management costs while maintaining service-levels
- Increase performance on file servers
- Reduce back up time

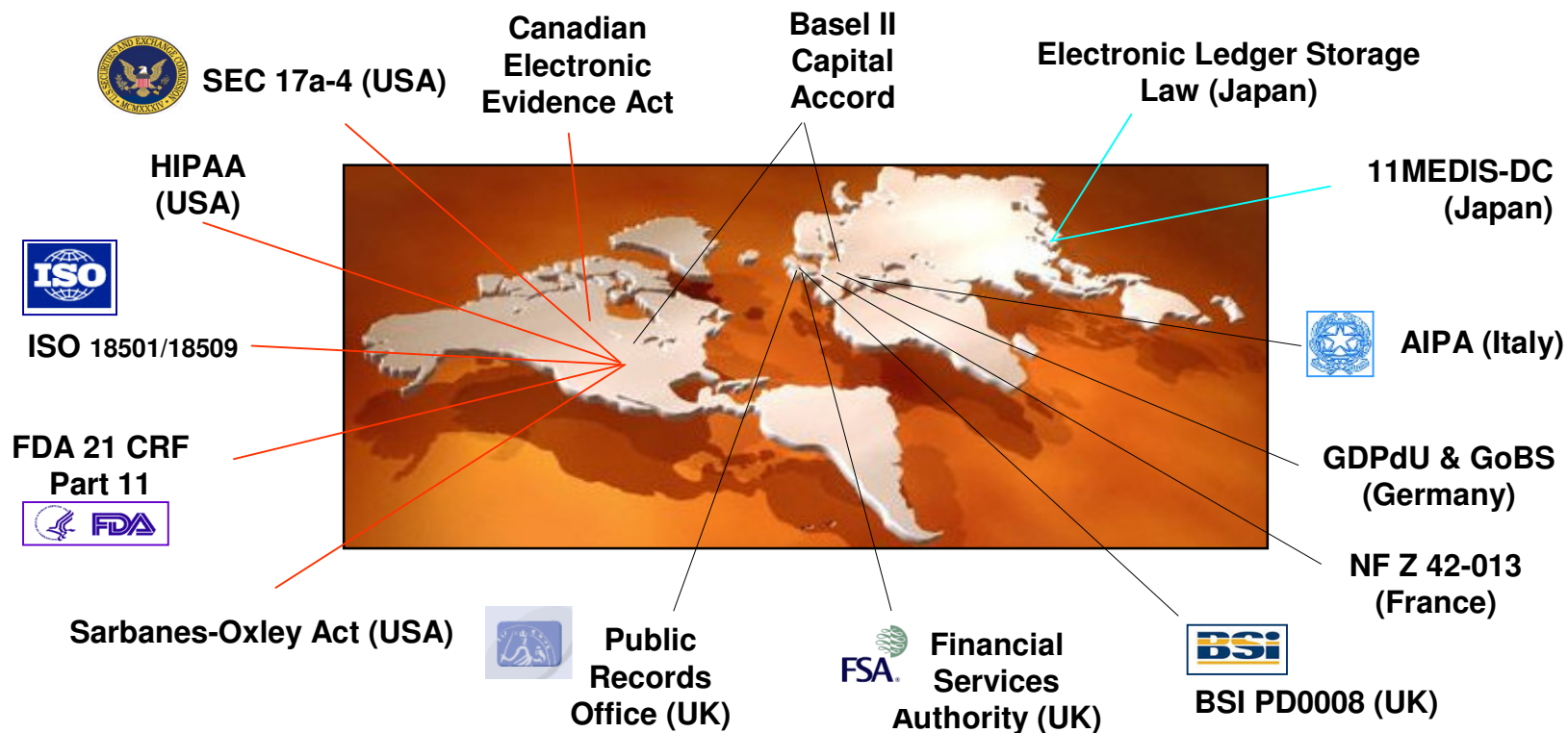


## Reference Information Management

- Reference information (static content) is underutilized and the ability to tap into it has potential business value
- When you need it, reference information is of great value



# Regulatory Compliance

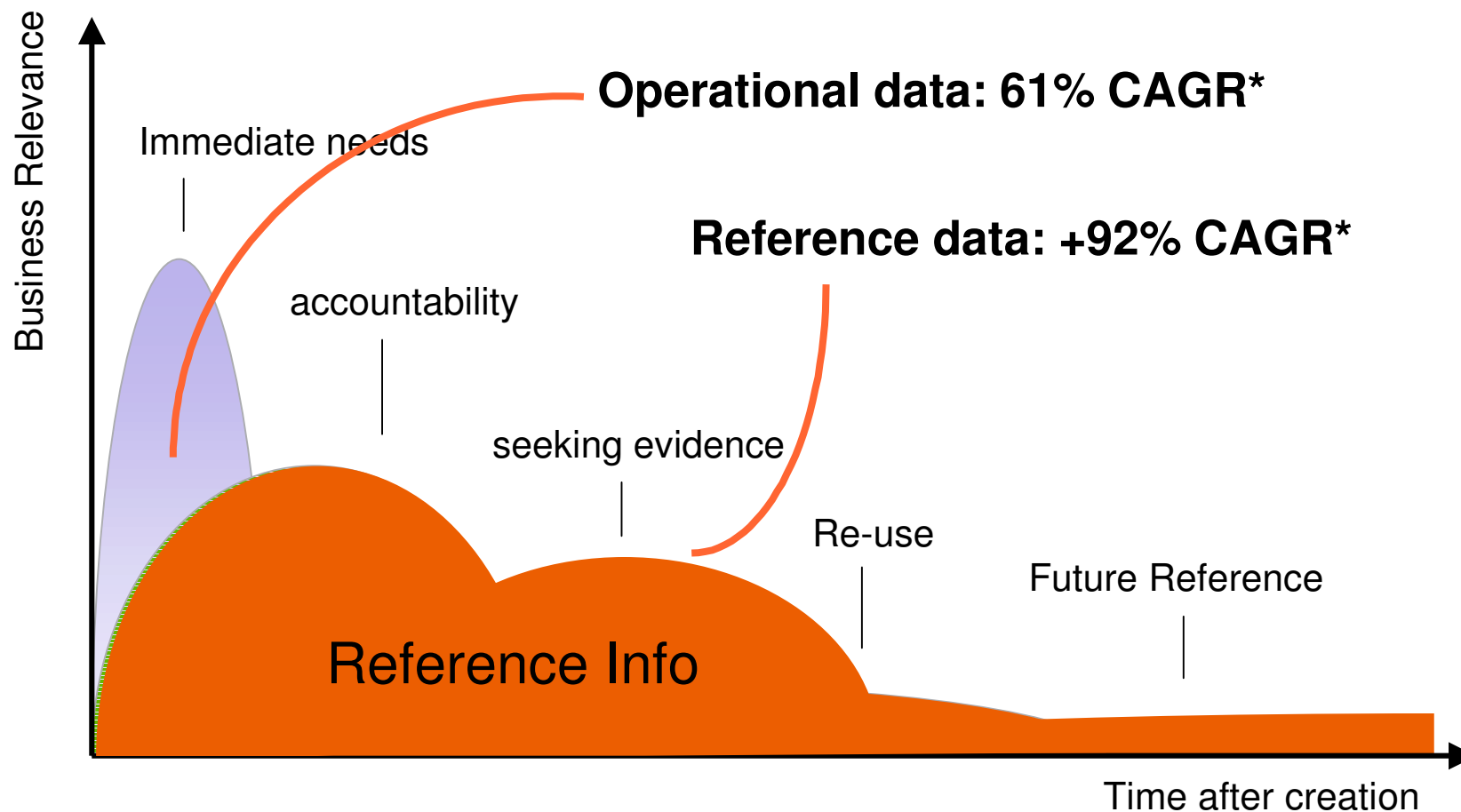


## Key Trends:

- Proliferation of regulations
- Recognition of electronic documents as evidence
- Courts requiring discovery of evidence e.g. emails

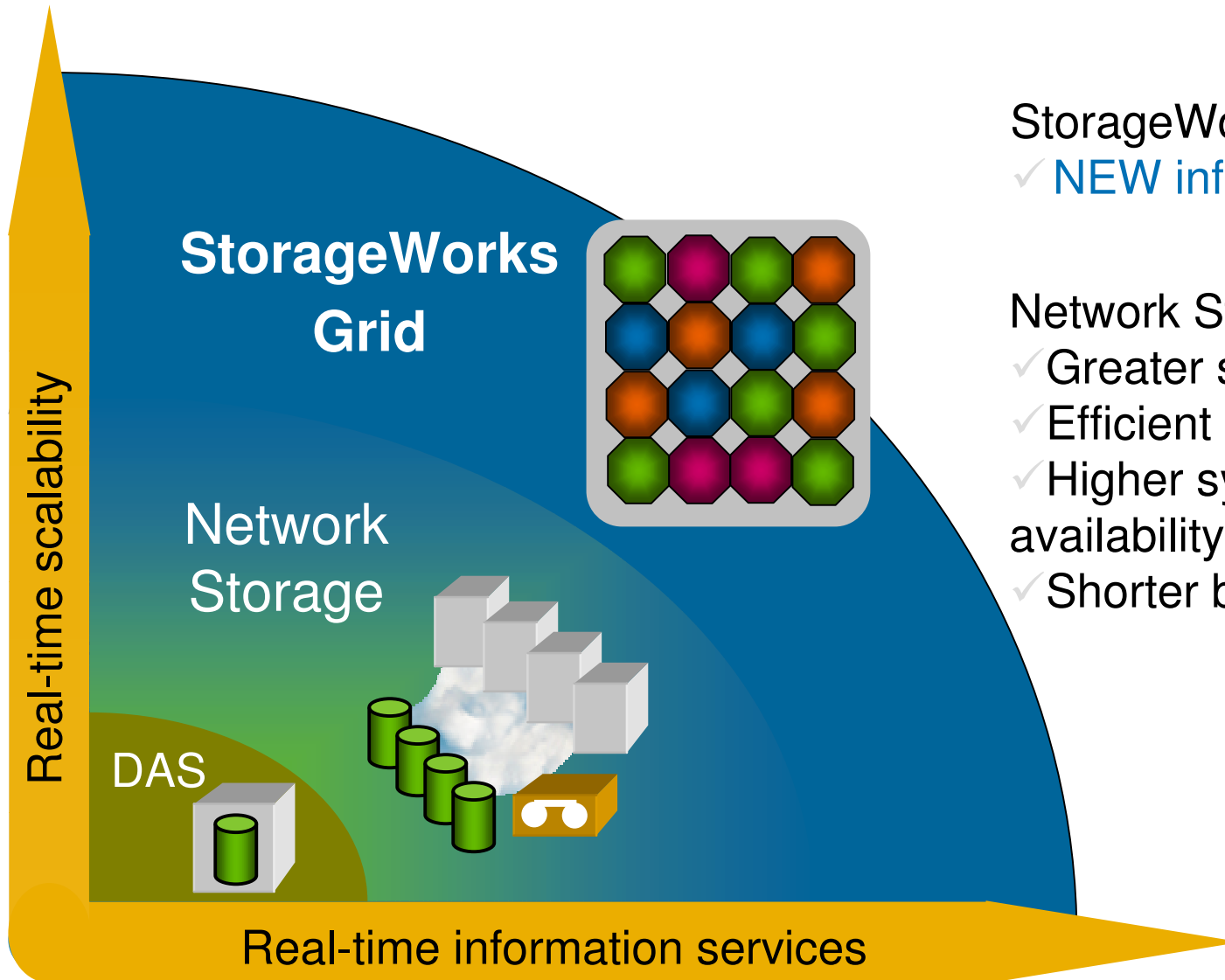
# Data usage changes over time

...but it's true value is unpredictable



Source: Jan Möller, Ministry of Transport, NL

# Evolving storage towards the Adaptive Enterprise



StorageWorks grid enables  
✓ NEW information services

- Network Storage enabled
- ✓ Greater scalability
  - ✓ Efficient resource sharing
  - ✓ Higher system availability
  - ✓ Shorter backup windows



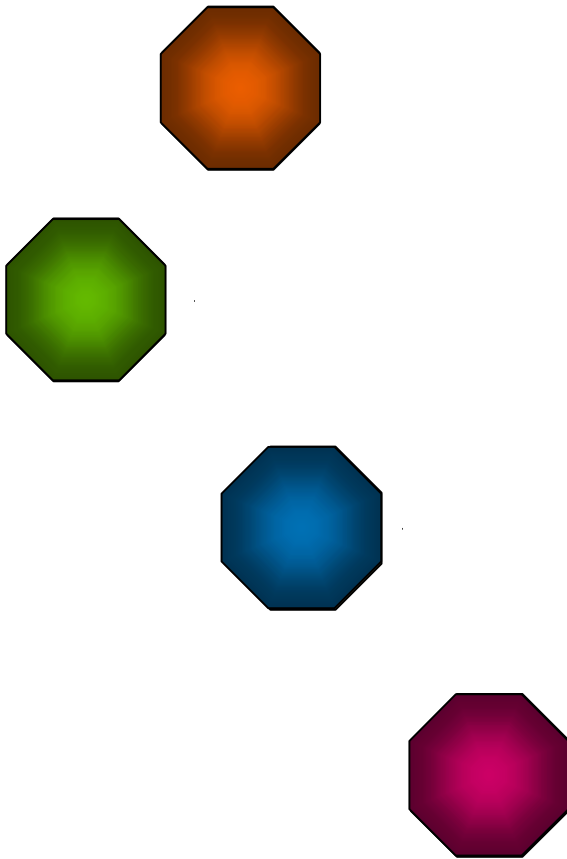




# The StorageWorks grid

## Delivering information services

### “Smart Cells”



- ✓ Standardized, modular hardware
- ✓ Combinations of unique traits added to “smart cells” enable specialized services

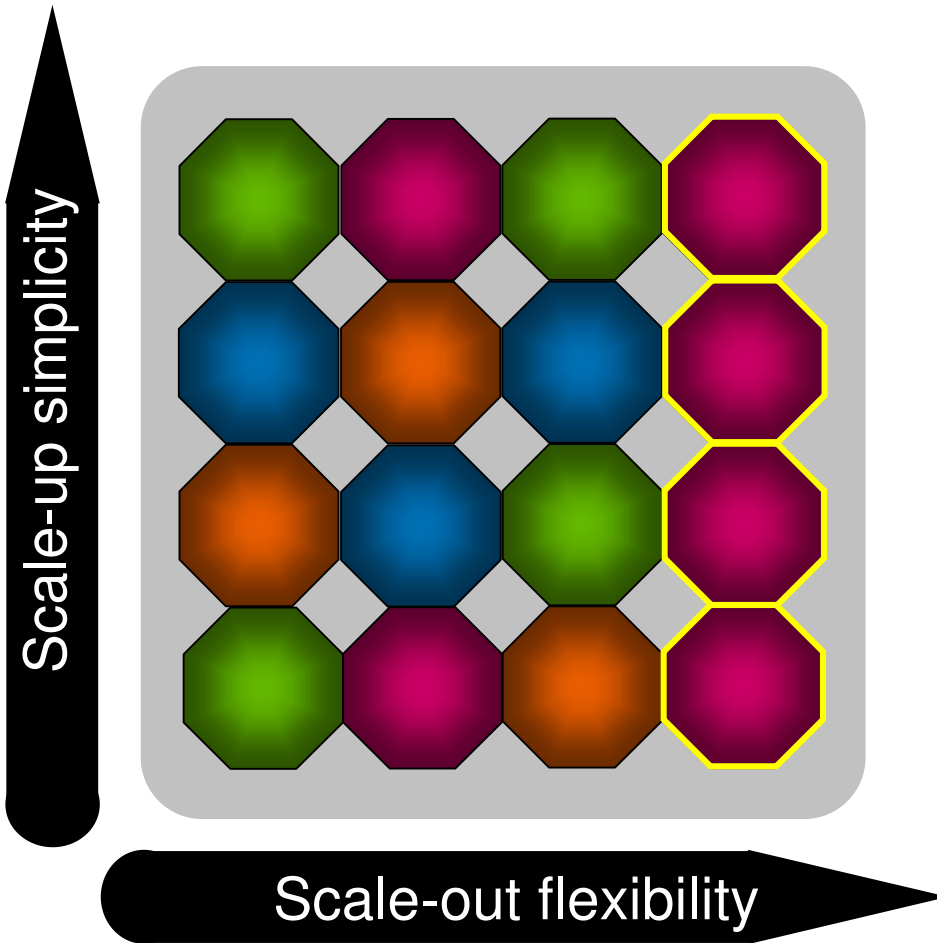


# The StorageWorks grid

## Delivering information services



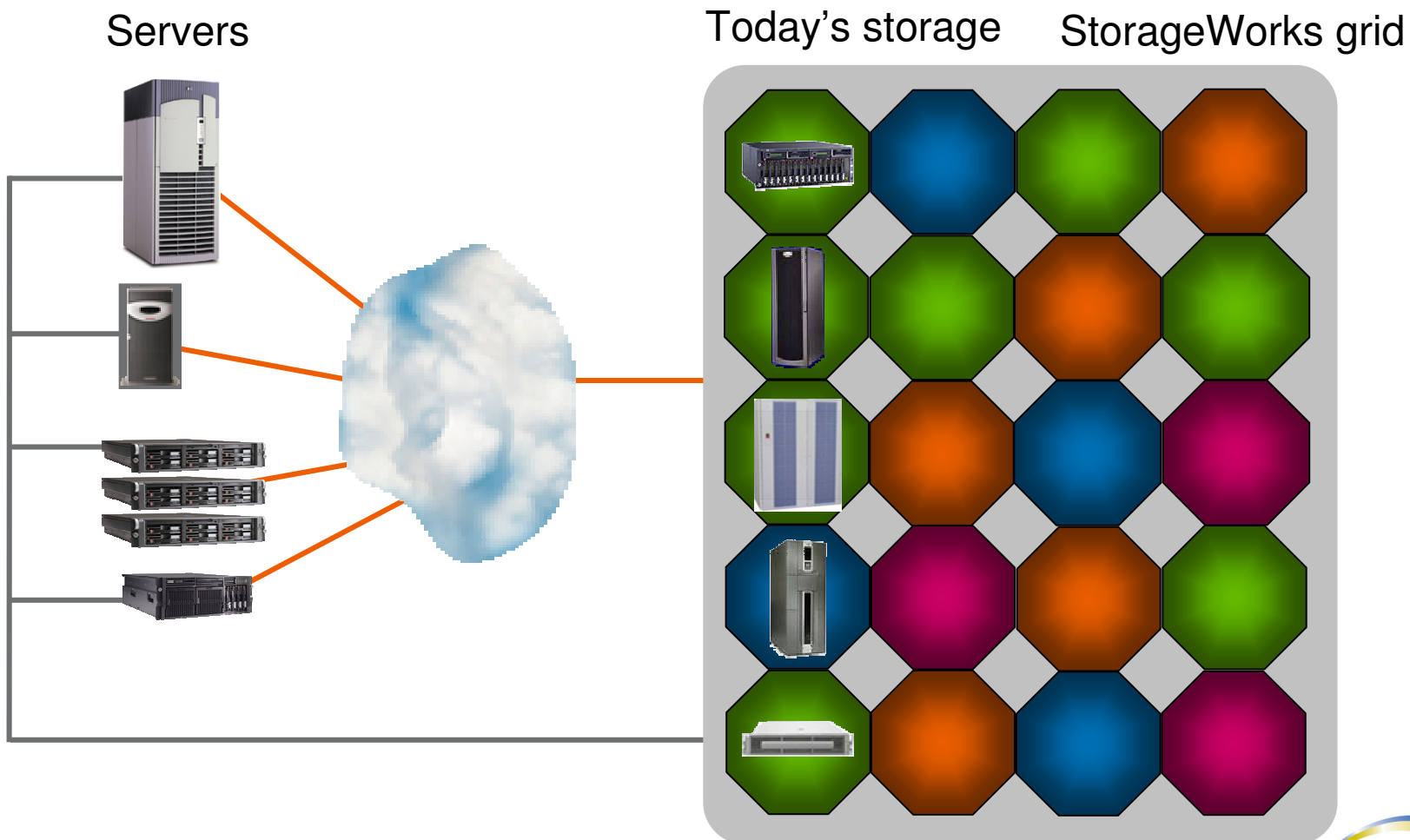
“Smart Cells”



- ✓ Standardized, modular hardware
- ✓ Combinations of unique traits added to “smart cells” enable specialized services
- ✓ Managed as a single, highly available system
- ✓ Scale massively
- ✓ Change dynamically

# The StorageWorks grid

A revolution with investment protection



# The StorageWorks Grid

## Benefits across the Enterprise

### CIO Deliver TCO

- Investment protection
- Standardization
- Unlock asset value
- Pay as you grow scalability
- Deliver SLA's

### Value



### End User Real-Time Information

- Increase agility
- Information sharing
- Rapid capacity
- Simple searching
- Assured availability

### Agility

### Administrator Remove Operational Tasks

- Standard building blocks
- Automate tasks
- Rapid deployment
- Simplify processes
- Single system image
- Dynamic scalability

### Simplicity

A man in a dark blue shirt is shown in profile, looking upwards and to the right. He is holding a clipboard or a set of papers. The background is a large, curved, metallic structure, possibly part of an aircraft or industrial machinery, with a light blue sky in the distance.

HP RISS

Reference Information Storage System

# Reference information in today's enterprise



## ENTERPRISE PRIMARY STORAGE

Over 50% today's enterprise server storage is made up of reference information



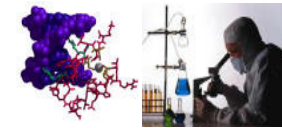
Email & Office documents



Check & Document Imaging



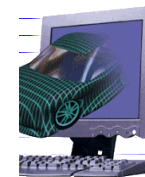
Digital Audio & Video files



FDA Documentation



Medical imaging & Patient records



Engineering Documentation



# Enterprise information challenges

- Cost of assets and management
- Reference information files poorly managed and hard to find
  - File system are unsophisticated tools
  - No real IT or record management control
  - Hidden liabilities & “smoking guns”
  - Enterprise “Data Amnesia”
- Growing percentage of reference information is subject to some form of regulation
  - Over 6000 regulations in the world





# Email: the #1 culprit

- Growing **exponentially**
- Users have adopted the **mailbox as their default filing system**
- Mail-servers and storage are **choked**
- **IT budgets** cannot cope with continual expansion
- There is **no central control** over record retention
- Platform **migration** is a nightmare



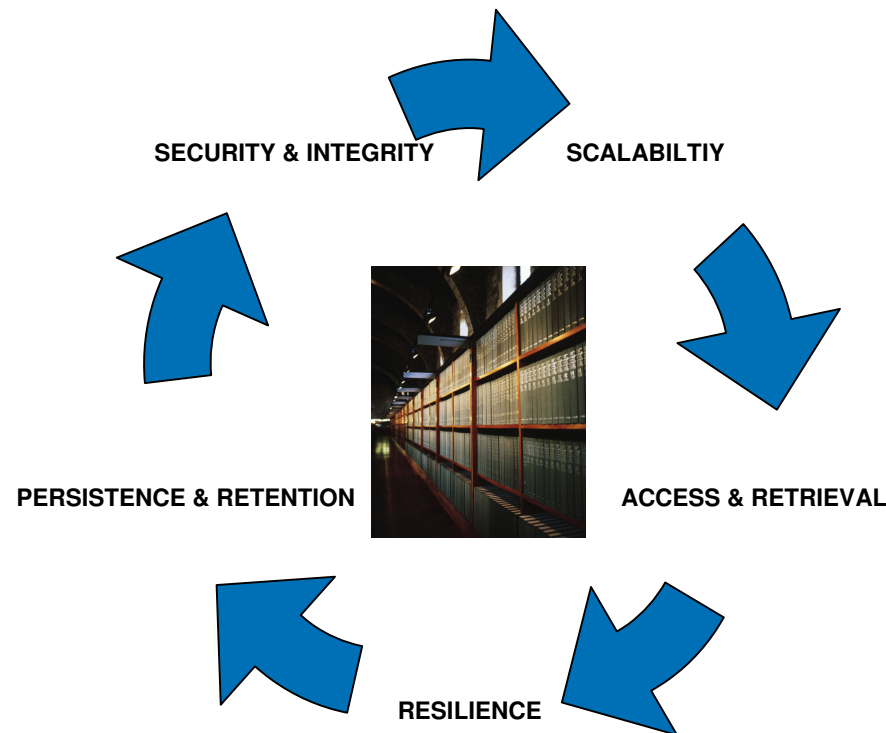


# Archiving: an ILM tool to gain control

## archive

1. A place or collection containing records, documents, or other materials of historical interest. Often used in the plural: *old land deeds in the municipal archives.*

2. A repository for stored memories or information: *the archive of the mind.*





# Challenges of enterprise archiving

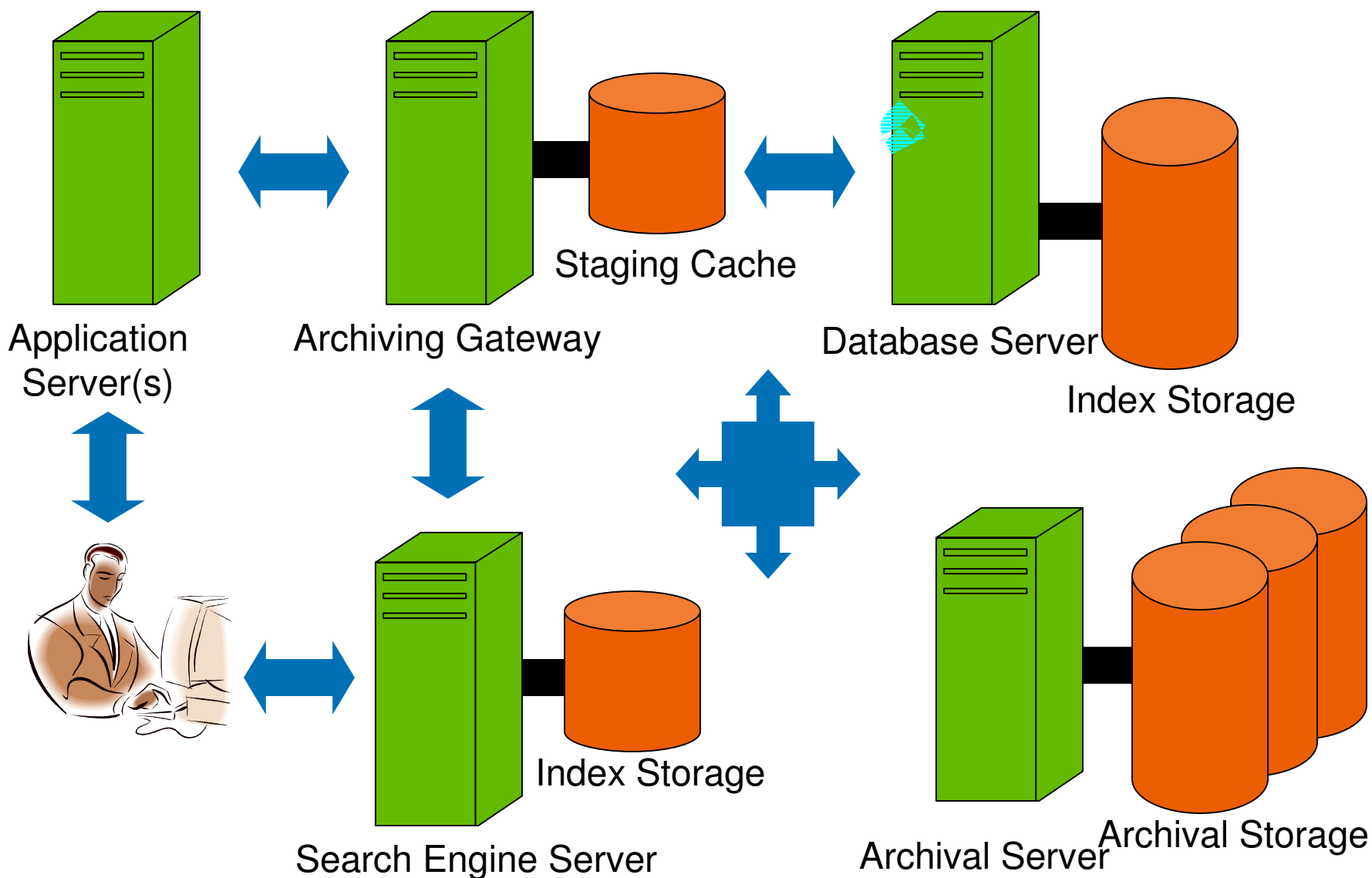
- Misconceptions
  - Information management is a storage problem
  - Archiving is all about putting information away
  - Backup is a form archiving
- Understand the nature of the data
  - Structured information
  - Unstructured ASCII
  - Unstructured binary or proprietary encoding
- Scale
  - 50 TB of email = 2 billion individual records

Which statement best represents your biggest archiving challenge?



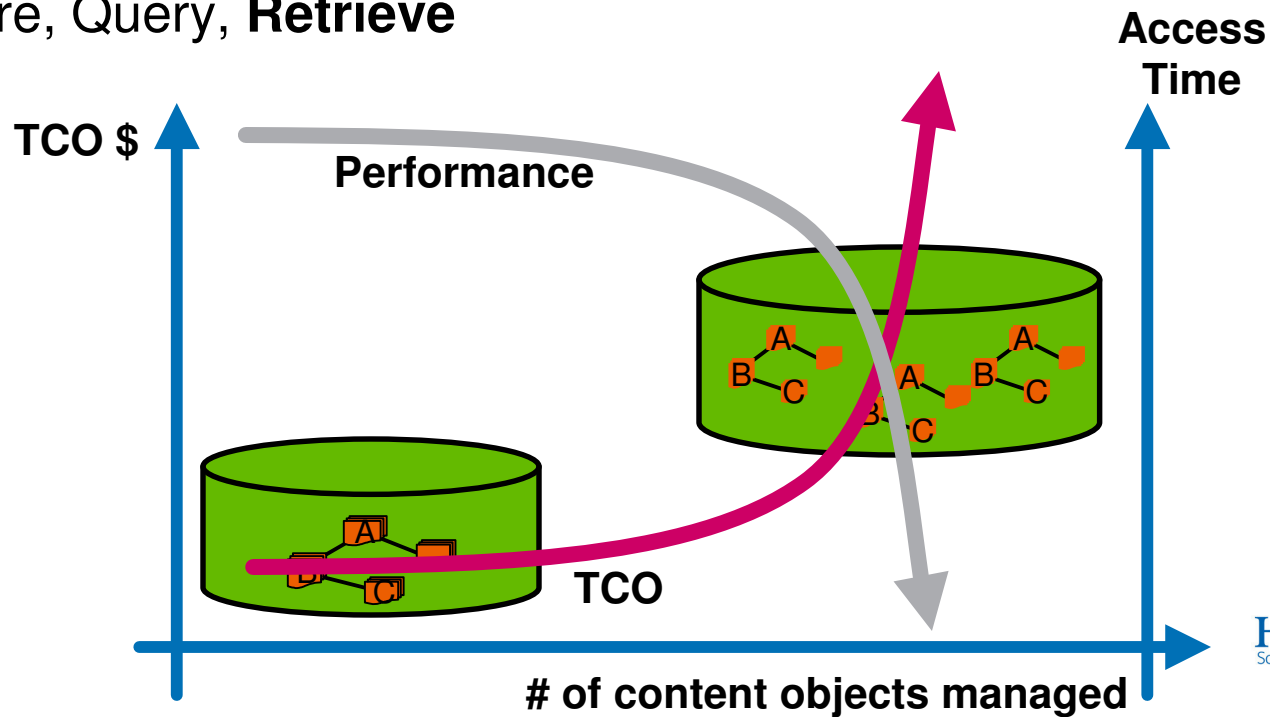
Source: CMP online survey, March 23, 2004

# Classic archiving system architecture



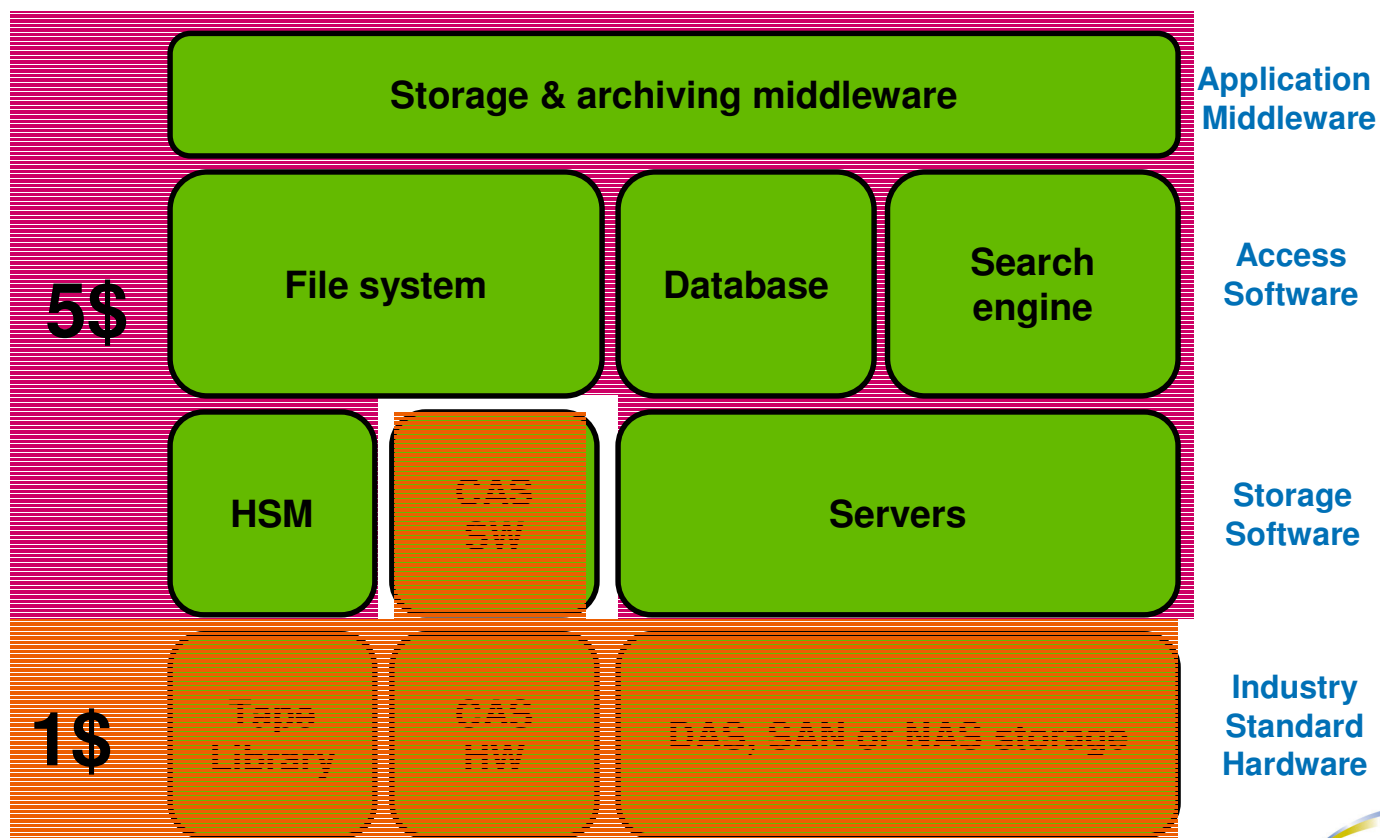
# Scale is #1 driver of TCO

- Cost **increases** non-linearly as a  $f$  (# of objects) not the number of users or size of enterprise
  - HW & SW assets
  - Operational & maintenance
- Performance **decreases** non-linearly
  - Store, Query, **Retrieve**



# The archiving IT “lego” game

APPLICATION

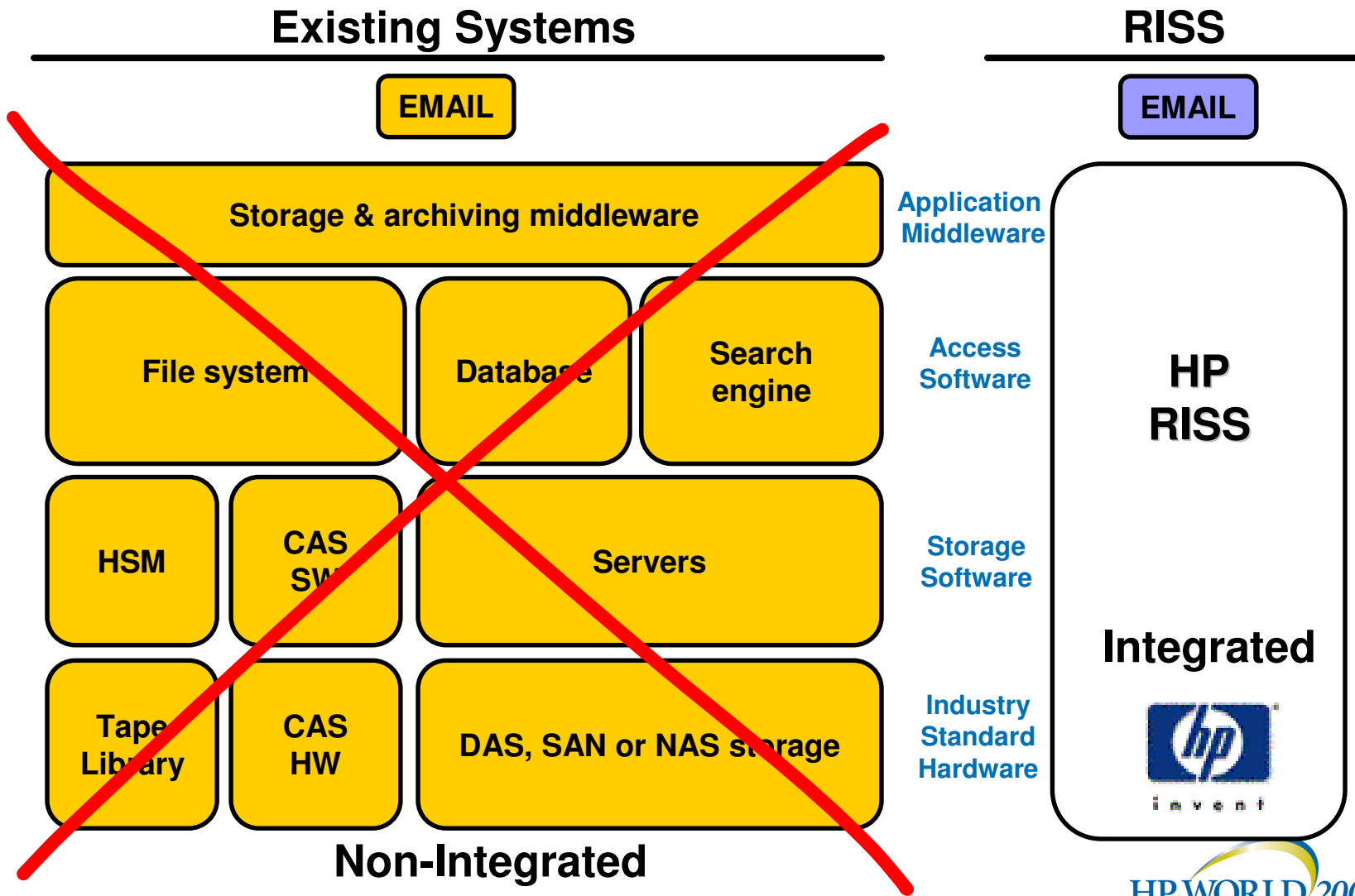


# New Generation of Solution

- Architectural design goals
  - Reduce TCO
    - Lower operational expenses
    - Lower capital expense
  - Scale to billions of objects
  - Simplify storage management
  - Knowledge of information for intelligent decisions
  - Reduce integration efforts
  - Ensure high performance with scale
  - Adaptive architecture for scale of system and application integration
- Delivered
  - All-inclusive appliance
  - Grid compute structure
  - Self managing, self healing
  - Fully redundant
  - Easy to manage
  - Application aware
  - Built in security and encryption
  - Linear performance & scale
  - Store, encrypt, protect, and rapid search on any content

# RISS is an all-in-one solution

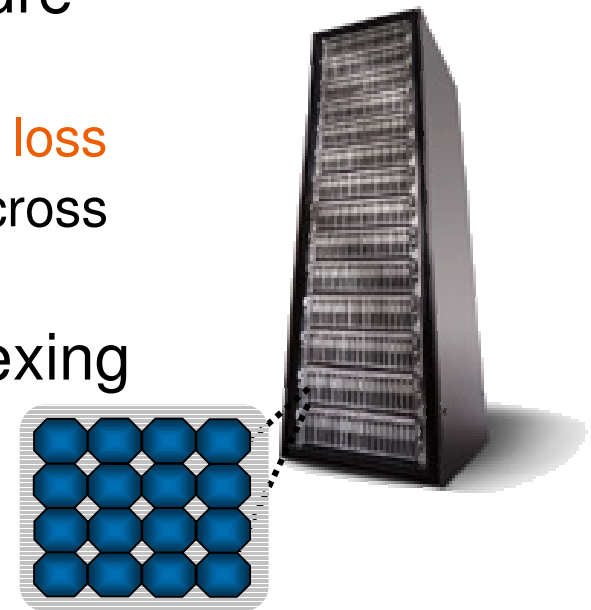
Seamless integration





# Introducing: HP StorageWorks Reference Information Storage System (RISS)

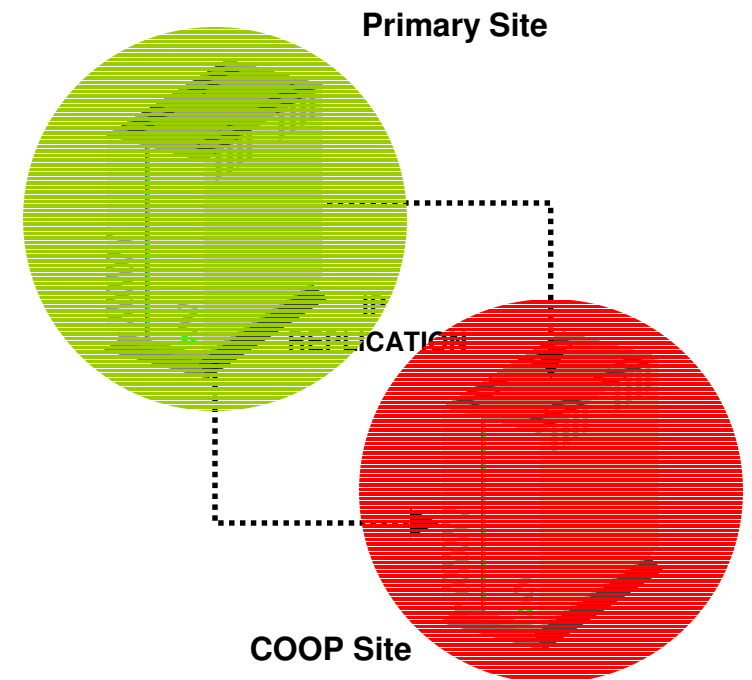
- An **all-in-one** content storage offering
- HP's **platform** for storage and retrieval of archived application information
- Leverages a grid computing architecture in an appliance package by:
  - providing **linear scalability w/o performance loss**
  - intelligently distributing **billions of objects** across Smart Storage Cells
- **Application aware**, content based indexing and powerful search tools



Smart cell grid  
for ILM services

# HP RISS

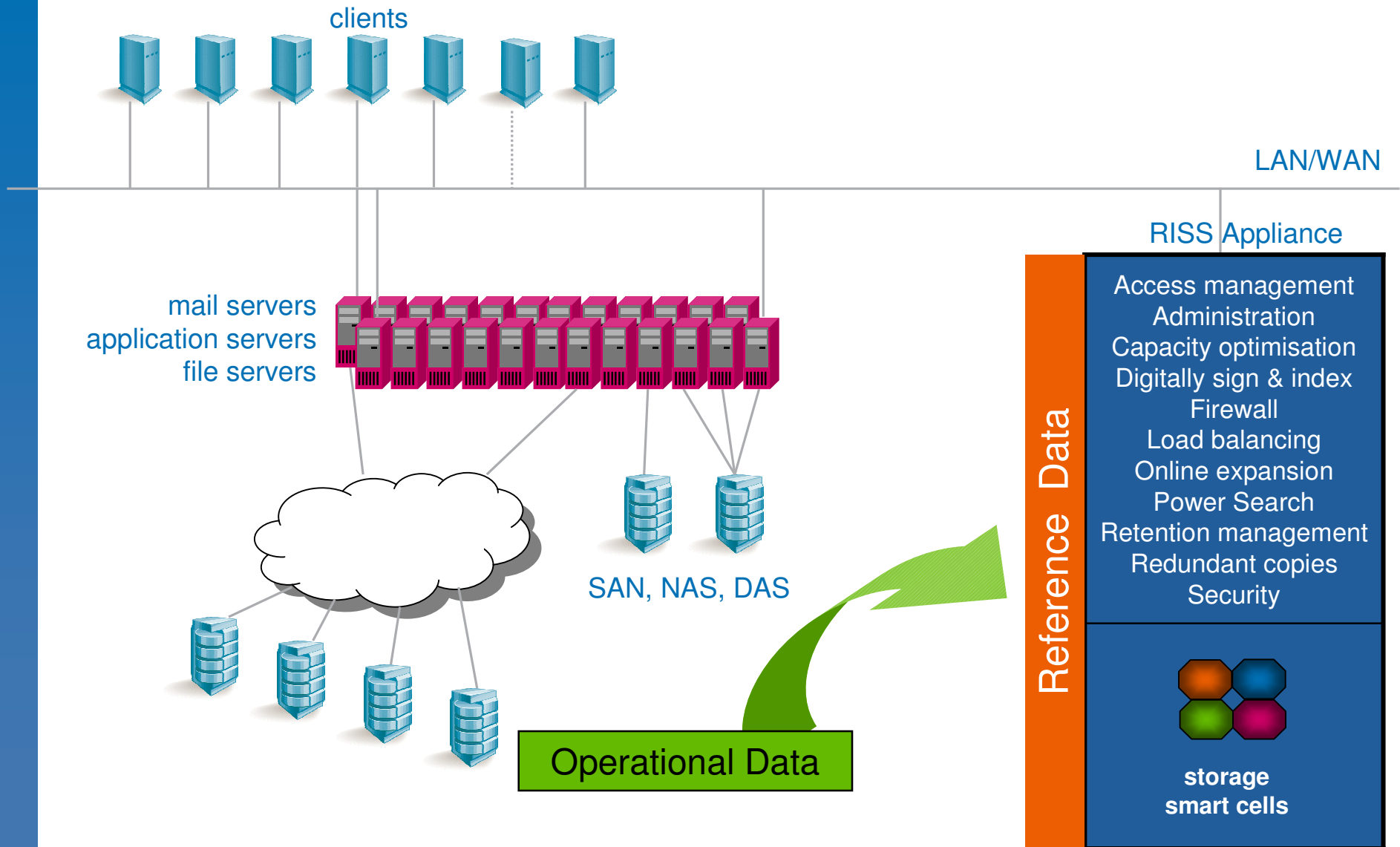
- A Reference Information Appliance:
  - Appliance designed to provide **large scale storage, access and content retrieval for reference information**
    - Dramatic reduction of TCO of your reference storage infrastructure
    - Grid computing technology
    - High speed search & retrieve of any content
    - Designed and built for continuous data availability
      - Fully mirrored and replicated
    - Designed with compliance “inside”
    - Scalable to billions of documents
    - Security & data integrity
    - Platform independent
      - Any OS
      - Any content files



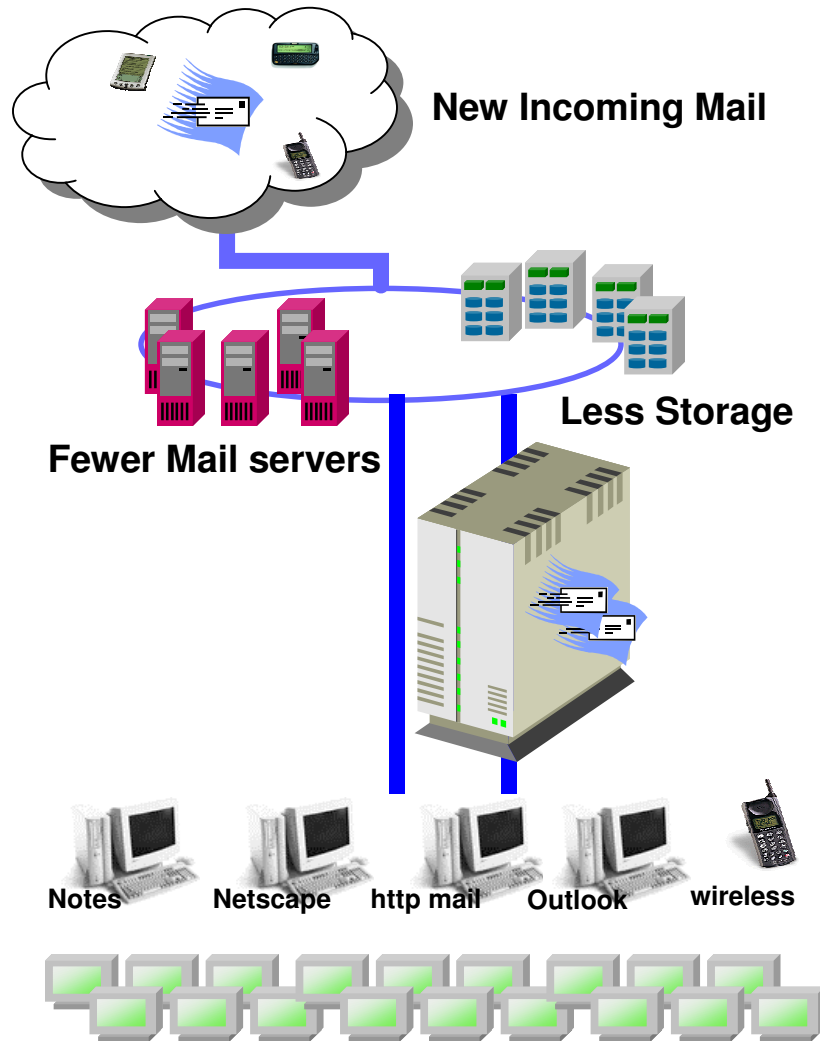
Search on any content



# HP RISS solution



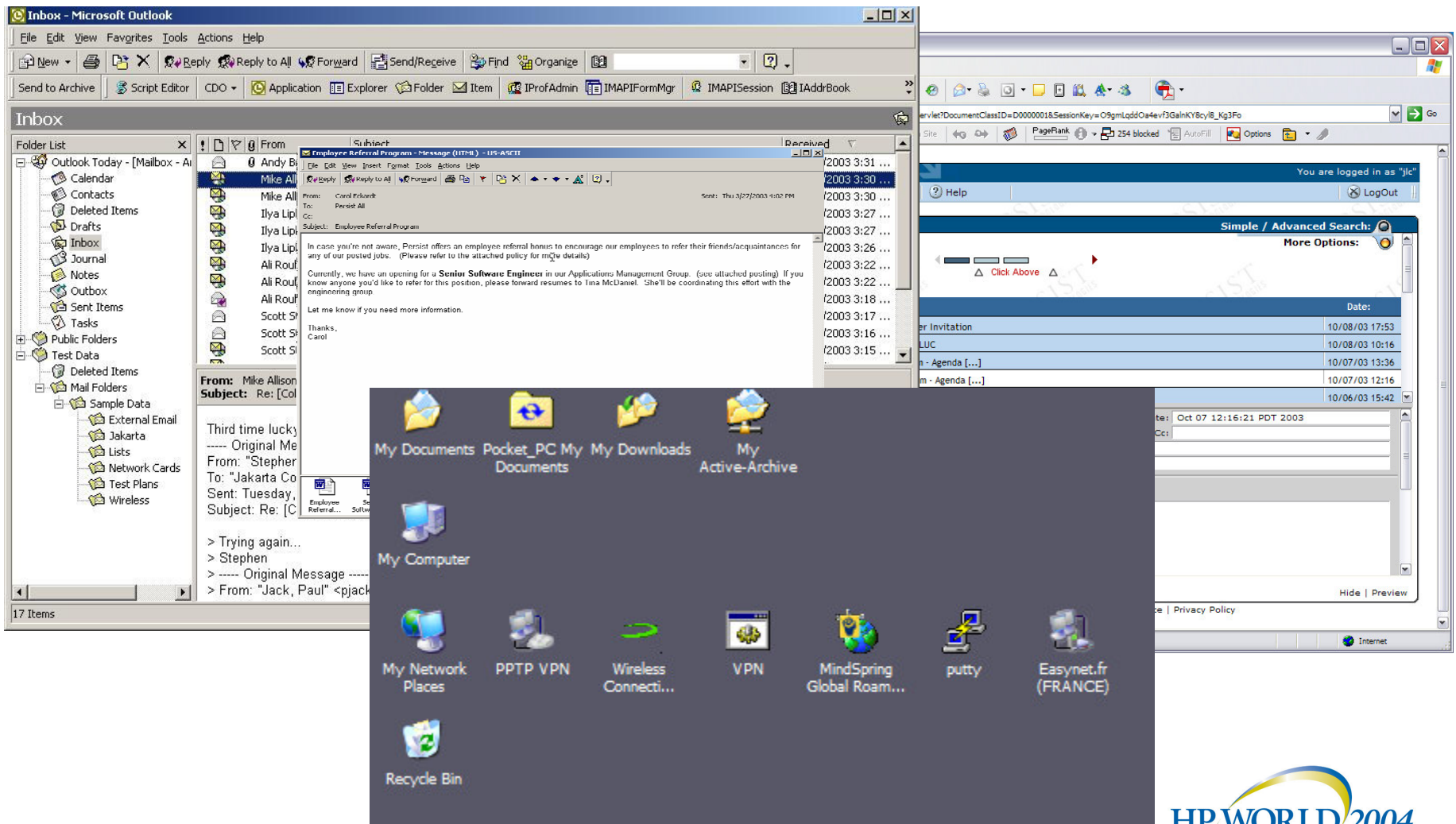
# The RISS solution to slay the email dragon



- Reduce Email expense with HP active archiving solution
- An increase in users/volumes does not demand an increase in servers & storage
- Mailbox extension
- Removes duplicate messages & attachments—lowering costs
- Policy-based archiving
- Retain all business-critical records for compliance
- Transparent to end-users
- Rapid retrieval of files
- Infinite scalability



# Mail client, browser & desktop integration



# HP StorageWorks RISS: Key features and benefits



- **Mitigate risks**
  - Automatic archiving of ALL records for compliance purposes
  - **Data** is digitally signed, time stamped, and **protected** from erasure
  - Retention **policy management** and shredding after expiration
- **Manage costs**
  - Automatically harvests messages and attachments from users' mailboxes
  - IT sets archiving policies
  - Migration of legacy files to archive
  - Automatic removal of duplicates from the archive
  - **Seamless integration**, no user-training needed
- **Exploit reference data**
  - **Application aware** archiving
  - Powerful, application **integrated, search** tools
  - Full content search – entire message and attachment





# Architecture & Directions

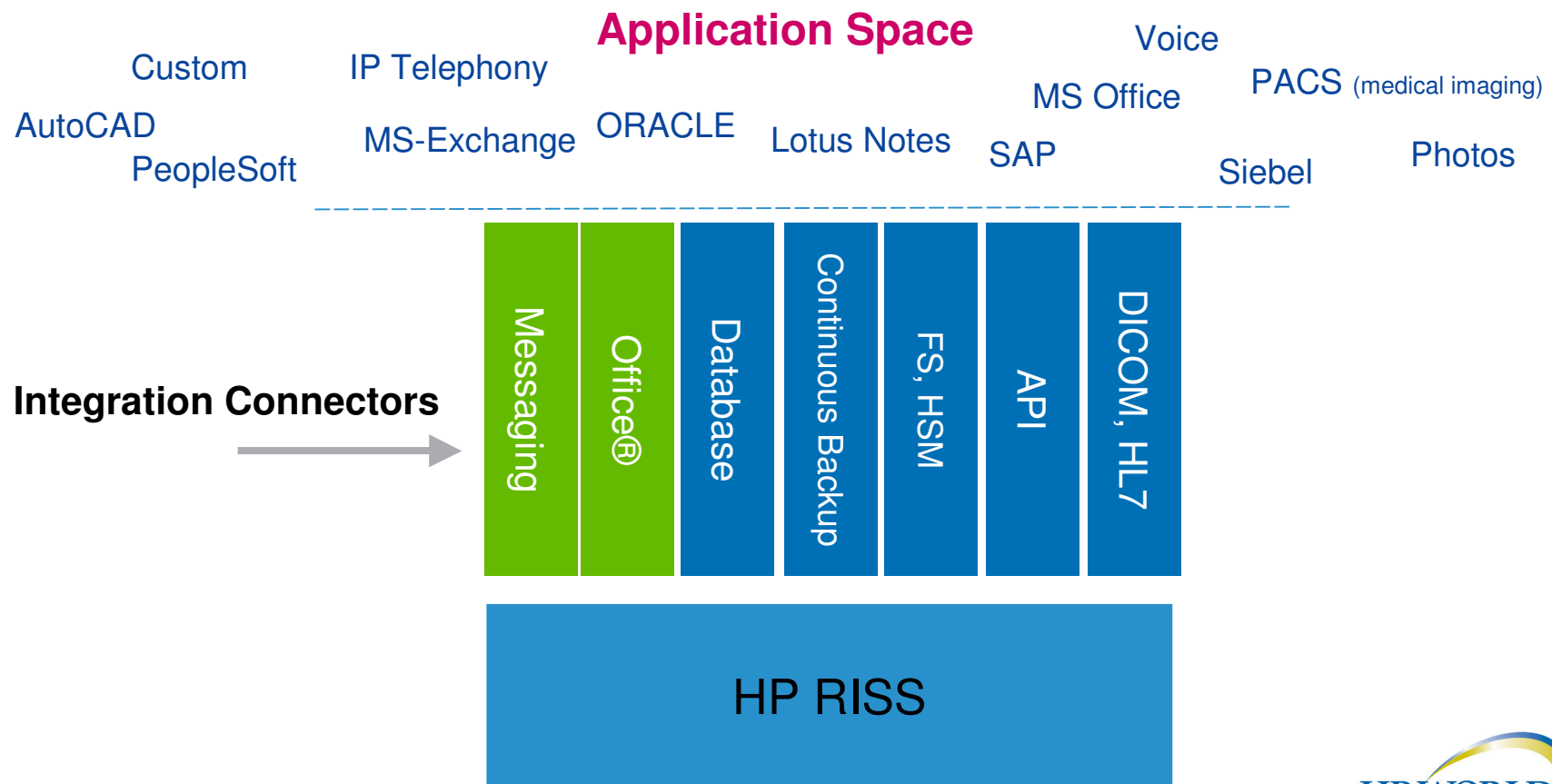




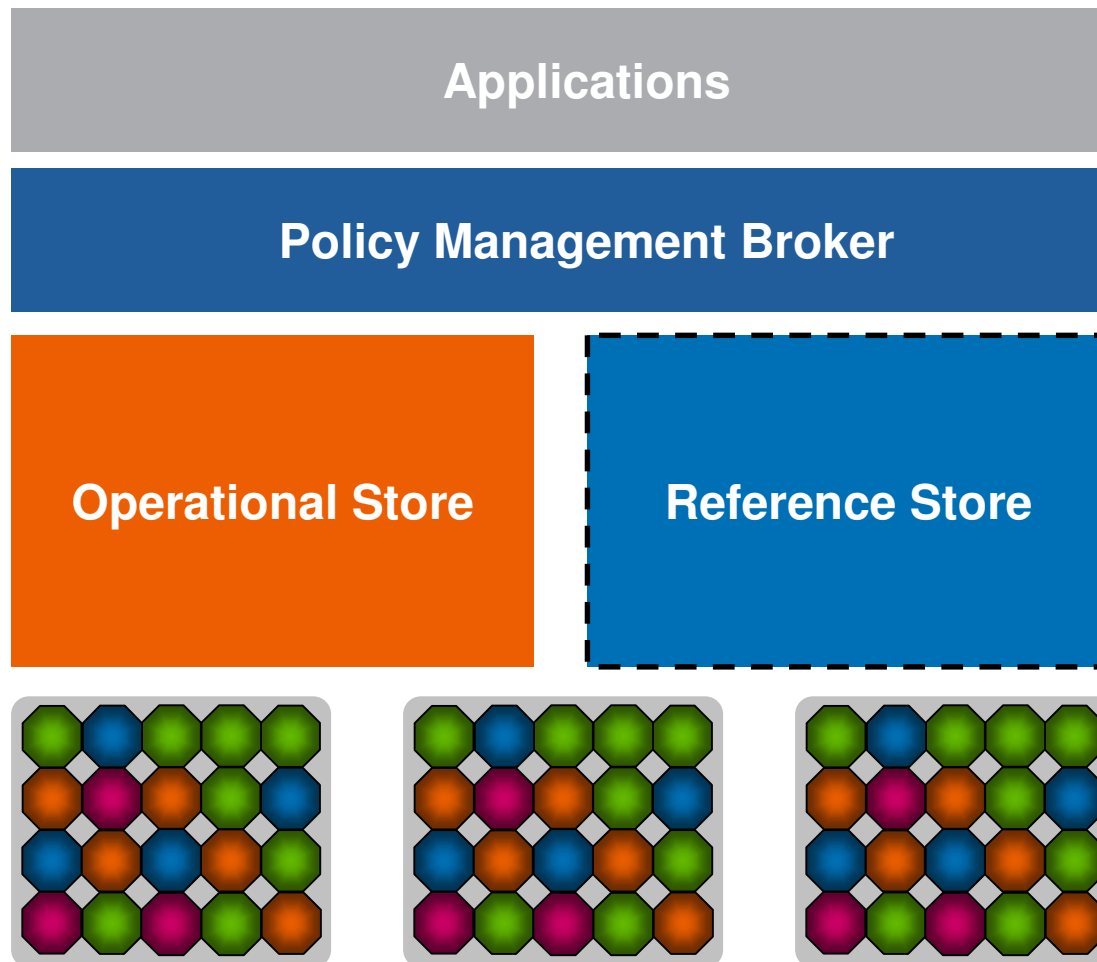


# Next Wave: Broad Application Integration

Integration delivers the best application experience & performance

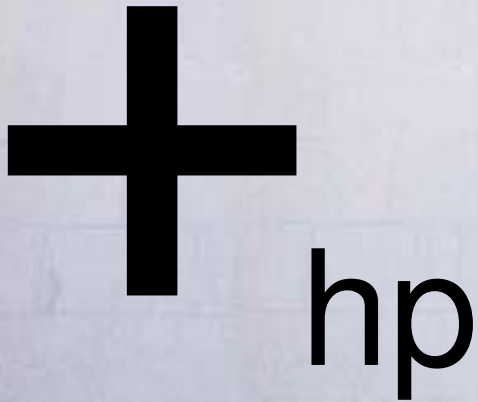


# NSS vision – 18 months horizon

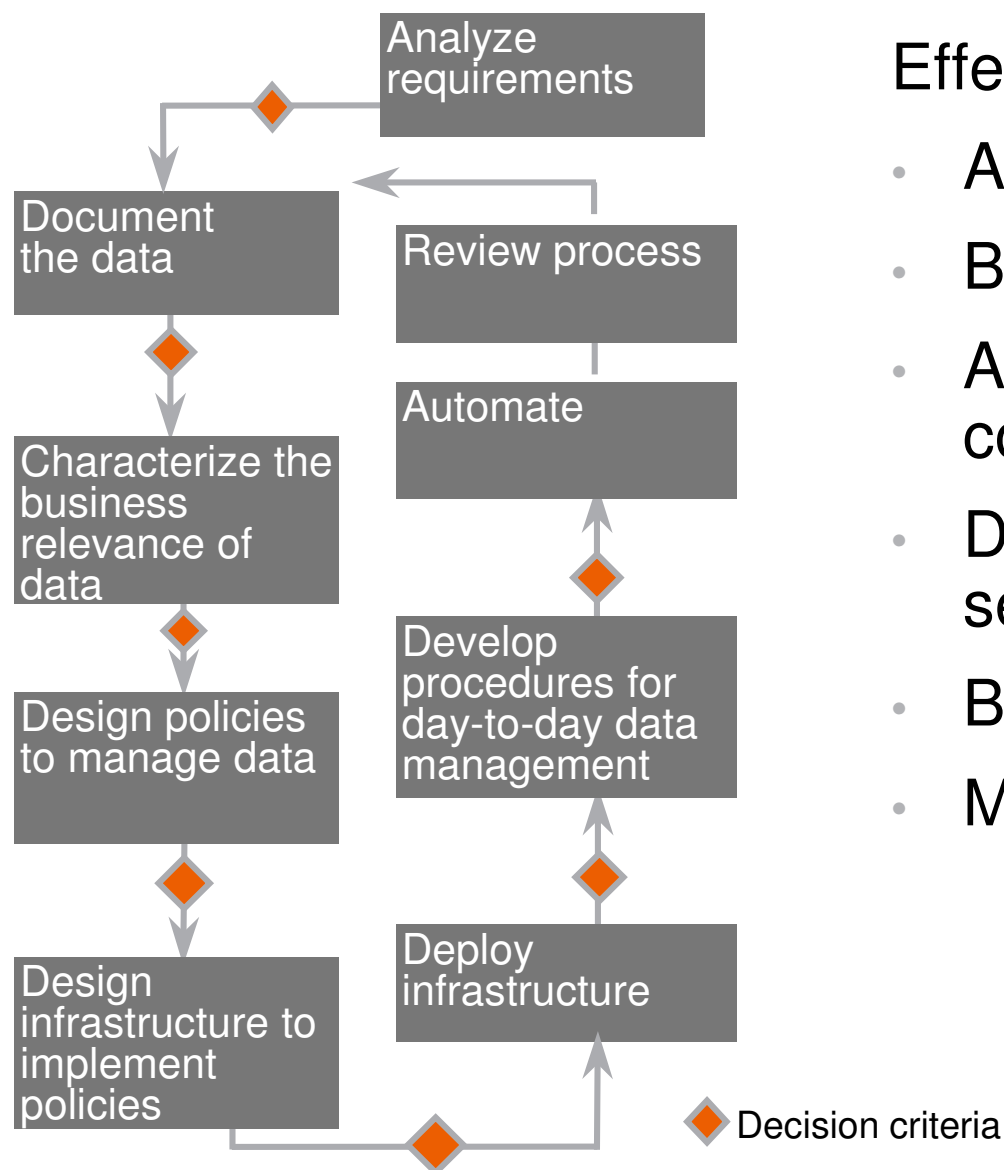


StorageWorks grid platform

# ILM Services & Partners



# Business processes drive ILM services



Effective workflow requires:

- Analytical services
- Business process consulting
- Architecture and design consulting
- Deployment and integration services
- Break/fix services
- Managed services

# ILM partner program



- full range of ILM solutions for customer applications
- support for all HP hardware platforms (disk, tape, optical)
- maximizes customer choice
- simplifies implementation for lowest cost and highest TCE
- Partners: KVS, CommVault, Princeton Softech, IXOS, ADIC, ByCast and others
- Solutions: email archiving, DB archiving, HSM, medical imaging, D2D backup, SAP archiving



# Summing Up...HP's View on ILM

It's not just about hardware & software	> Services is a key requirement
It's not just about technology	> It's about business processes
It's not just about throwing cheap disks at the problem	> It's about intelligently managing billions of records throughout their life
• No vendor can deliver the complete solutions	> Partnership are a requirement
• It's not just about putting data away	> Getting it back is key
• It's not just about relying on users to save the right records	> Its about enterprisewide archiving policies





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