

# Archiving Domino Data

Warren Elsmore, Computacenter



# Computacenter

- One of Europe's largest infrastructure service companies
- Strong European & International coverage
- 21 years of successful growth & reinvestment
- Vendor independent approach
- Highest levels of vendor accreditations & credentials
- Proven end-to-end service offerings



*An IBM Company*



i n v e n t



# Warren Elsmore

- Lead Consultant
- Champion of IBM Lotus Technologies

# Archiving Domino Data

- Compliance
- Storage
- Types of archiving
- Anatomy of an archiving solution
- Archiving products
- How can Computacenter help?
- Questions

# Reasons to implement archiving

- Compliance
- Storage problems

# Reasons to implement archiving

- Compliance
- Storage problems

# Compliance

- Regulations dictate
  - What should be stored
  - For what use
  - For how long
  - In what manner
- Differ depending upon industry and location

# Compliance

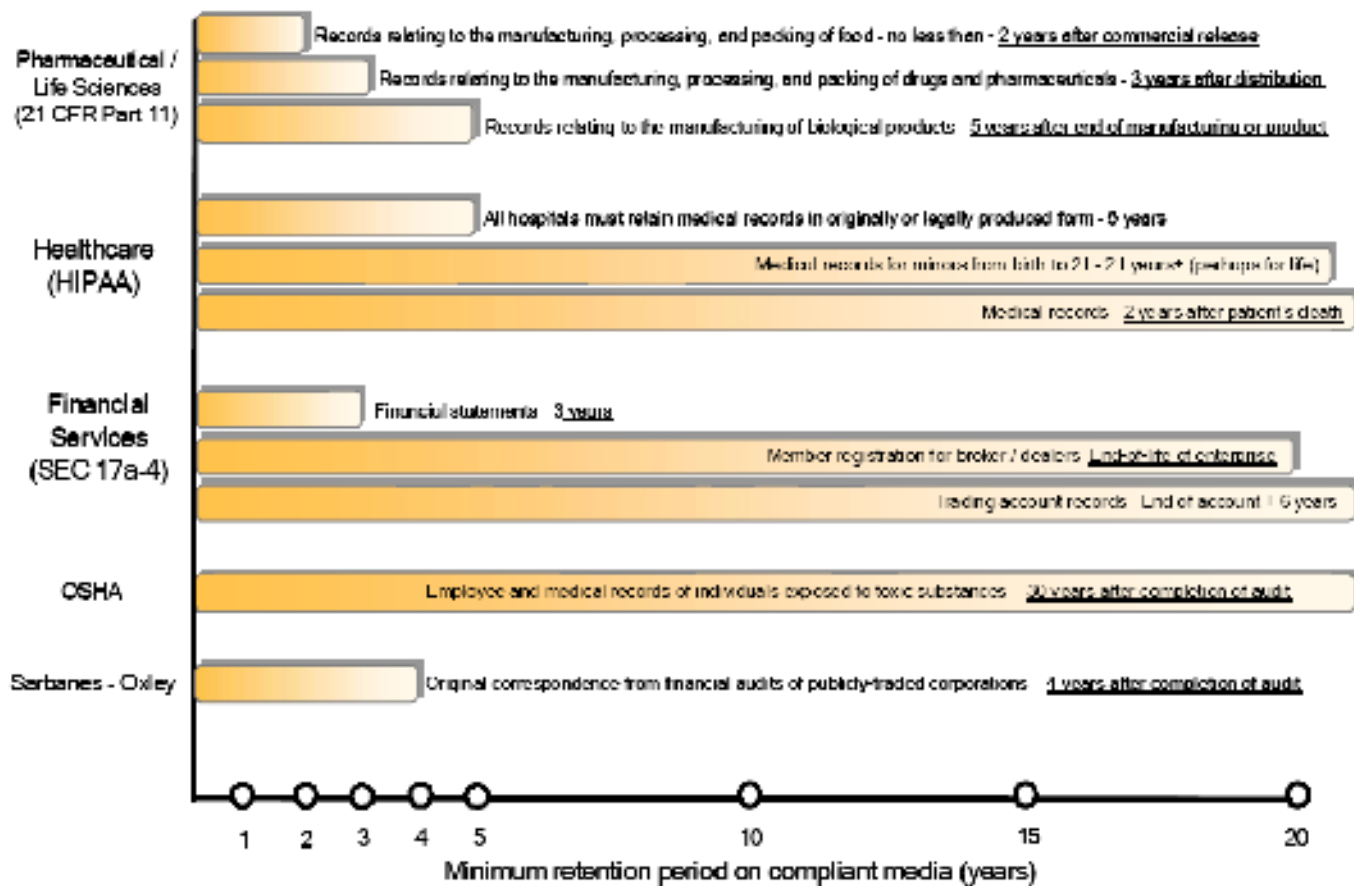
- UK and European Legislation
  - 1998 Data Protection Act
  - Freedom of information act 2000
  - FSA Act 2000
  - UK Companies Act 1985, section 221
  - Regulation of Investigatory Powers 2000 (RIP)
  - ATCS 2001 – UK service providers
  - Bsi DISC PD 0008/5000 (United Kingdom)
  - Civil Evidence Act (United Kingdom)
  - Electronic Commerce Directive (United Kingdom)
  - EU Directive on Privacy and Electronic Communications (2002)
  - Basel II International Accord
  - Draft EU data retention laws

# Compliance

- US Legislation may also apply
  - SEC 17a-3, 17a-4 - Securities Industry
  - HIPAA – Healthcare providers and insurers
  - 21 CFR Part 11 – for the pharmaceutical and life sciences industries
  - DOD 5015.2 – US Department of Defense agencies
  - Sarbanes-Oxley Act - All public companies

# Compliance

## Compliant record retention periods are increasing



Source: Enterprise Storage Group, May 2003

# Compliance

- “Ignorance is bliss”
- “We have a data destruction policy”
- “We already backup our data”
- “The responsibility is with the users”
- “We have outsourced IS, it’s not our problem anymore”

# Compliance

- Companies, company directors, and users can be held liable for failure to retain documents and records
  - Primary liability is organisational
  - Liability can be 'presumed' for individuals
- Electronic documents are admissible before a court of law (UK Civil Evidence Act 1995)
- UK Applicable Laws include:
  - Vicarious Liability, eg
    - Defamation Act
    - Sex Discrimination Act
  - Privacy
    - Data Protection Act
    - Human Rights Act
  - Regulatory Obligation
    - FSA

# Compliance

“How much do we need to pay you to screw Netscape?”

Bill Gates in an e-mail produced in the Microsoft antitrust litigation.

# Compliance

## 'Harassed' banker sent raunchy emails

Evening Standard , 2 May 2003

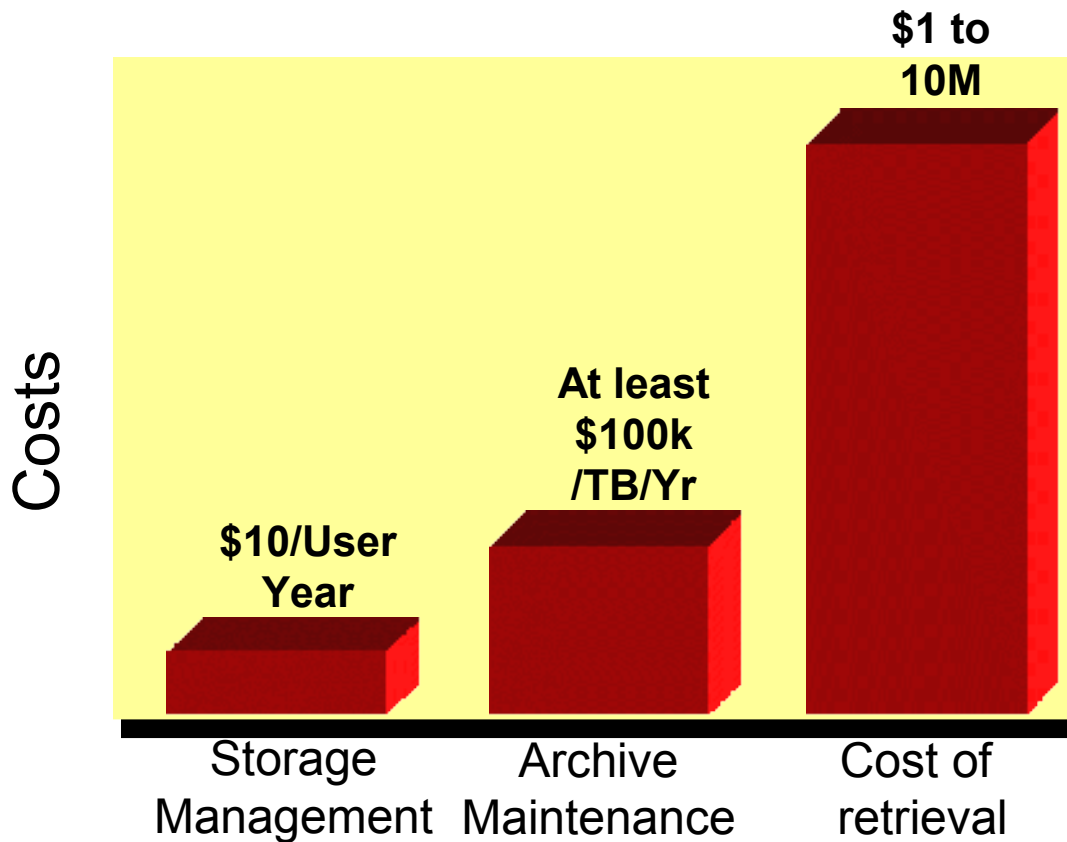
A City banker who claims she endured a regime of sexual discrimination in her £350K-a-year job today admitted sending raunchy emails to the boss she accuses of harassment. Giving evidence at the employment tribunal, Miss Coleman agreed with defence claims that she regularly forwarded emails containing sexually explicit material.



# Compliance

- 50% of organizations have at some point been ordered by a court or regulatory body to produce email  
(Osterman Research)
- < 14% of organizations have a formal or informal email archiving solution in place  
(Osterman Research)

# Compliance



*Storage management (archiving) is just part of the concern*

# Reasons to implement archiving

- Compliance
- Storage problems

# Storage

- Email Pac-rats
- Poor workflow systems
- Multiple instance message stores
  - - *for data that is not current*
- Multiple design instances (most likely)
- Attachments may not be compressed – email data won't be

# Storage

- Total messages/day will grow from 56.4B in 2003 to 164.3B in 2007 (Radicati)
- Average message size has increased 192% in 2000 to 286KB
- Mailbox volumes are growing at 40% annually
- > 40% of storage costs are attributed to email (AIIM)
- IT Admins spend > 25% time managing email (CNI)

# Storage



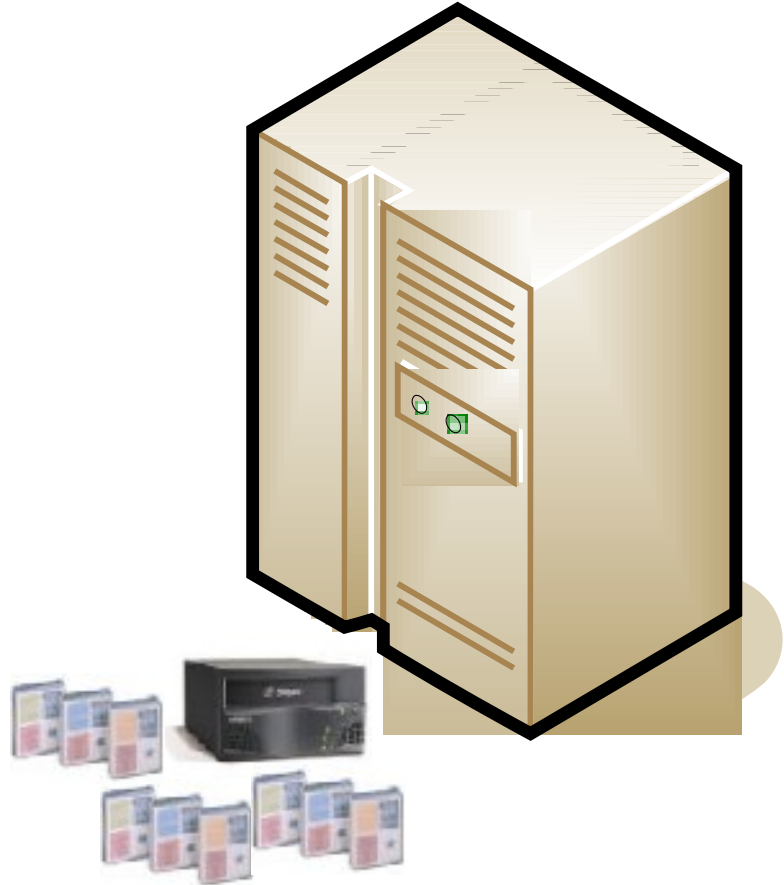
- 4000 Users
- 30 Messages in
- 30 messages out
- Average Message of 50K
- $4000 \times 60 =$
- 240,000 messages / day
- $240,000 \times 50Kb =$
- 12Gb messages / day

4.272TB per Annum

~ 1Gb per user per year

# Storage

- Imagine a 1.5Gb mail file on a 24x7 server
- 1.5Gb HDD
- 1.5Gb of RAM
- 3Gb RAM
- 3.5Gb RAM
- New processors
- New OS
- Plus a backup solution!



# Storage

- 80 / 20 rule
  - 80% of data on primary storage has not been accessed in the last 30 days
- Selecting the right storage can cut costs

# Storage

- EMC acquires Legato
- OpenText acquires 88% of Ixos
- IBM....

# Storage

# Archiving solutions

- ‘Copy’ style archiving
- ‘True’ archiving solutions

# 'Copy' style

- Moving “old” data to a file server or another Domino server
- You already have it!
- Can use tools in Lotus Notes, or manually
- Can be scheduled

# 'Copy' style

- Just moves the problem
- Increases management overhead
- Doesn't help with compliance or auditing
- Doesn't reduce time spent searching the data
- Doesn't reduce the load on servers
- Doesn't ensure security of archives

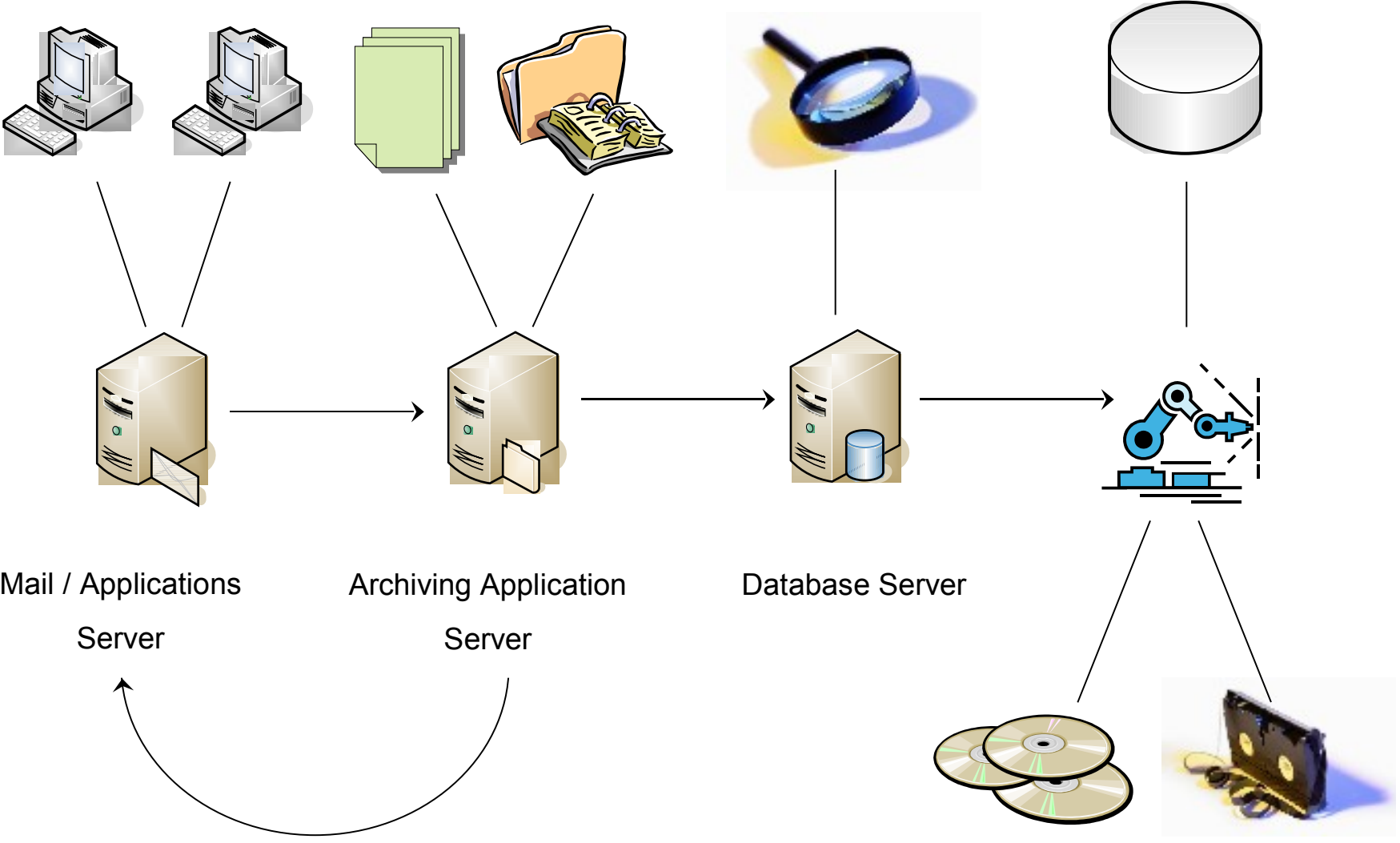
# 'True' archiving

- Allows seamless archiving
- Allows archiving based upon set criteria
- Uses a RDBMS to support full indexing
- Supports full security model
- Reduces storage space by using compression
- Will allow many mediums to be archived (Instant Messaging, file stores etc)
- Stores data using the most cost effective medium
- Supports life cycle management

# 'True' archiving

- Requires new software
- Requires new hardware to handle the data
- Needs to be carefully planned
- May need long term administration

# Anatomy of an archiving solution



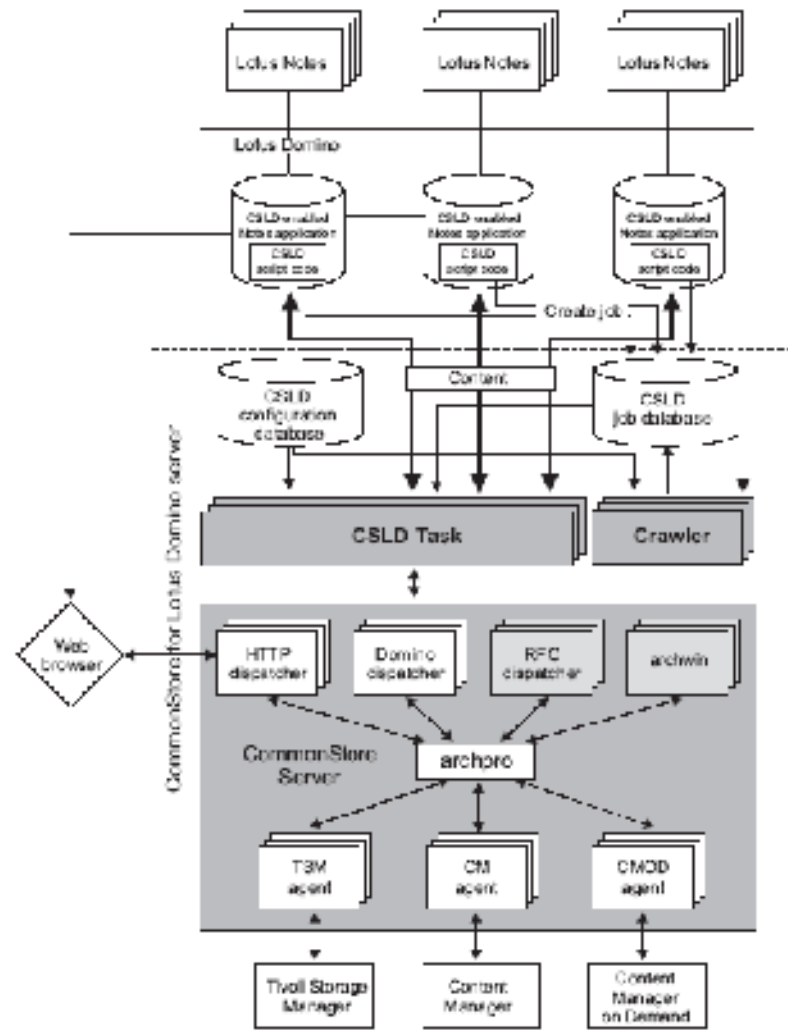
# Archiving options

- IBM DB2 Commonstore for Lotus Domino
- IXOS - eCONserver for Lotus Notes
- Legato eMailExtender for Lotus Notes/Domino
  
- Other archiving solutions are available...

# IBM DB2 Commonstore for Lotus Domino

- Available on Windows 2000/2003 and AIX
- Fully managed through Lotus Notes
- Works with almost any Domino database
- Truncates Notes documents, providing URLs to receive the full copy
- Supports 'byte-stream' archiving
- Supports open interface to external processes
- Isn't actually a full archiving solution
- Requires a separate backend database (DB2)
- Uses Tivoli Storage Manager
- Full document archiving requires DB2 Content Manager
- Supports Discovery Server to provide full searching

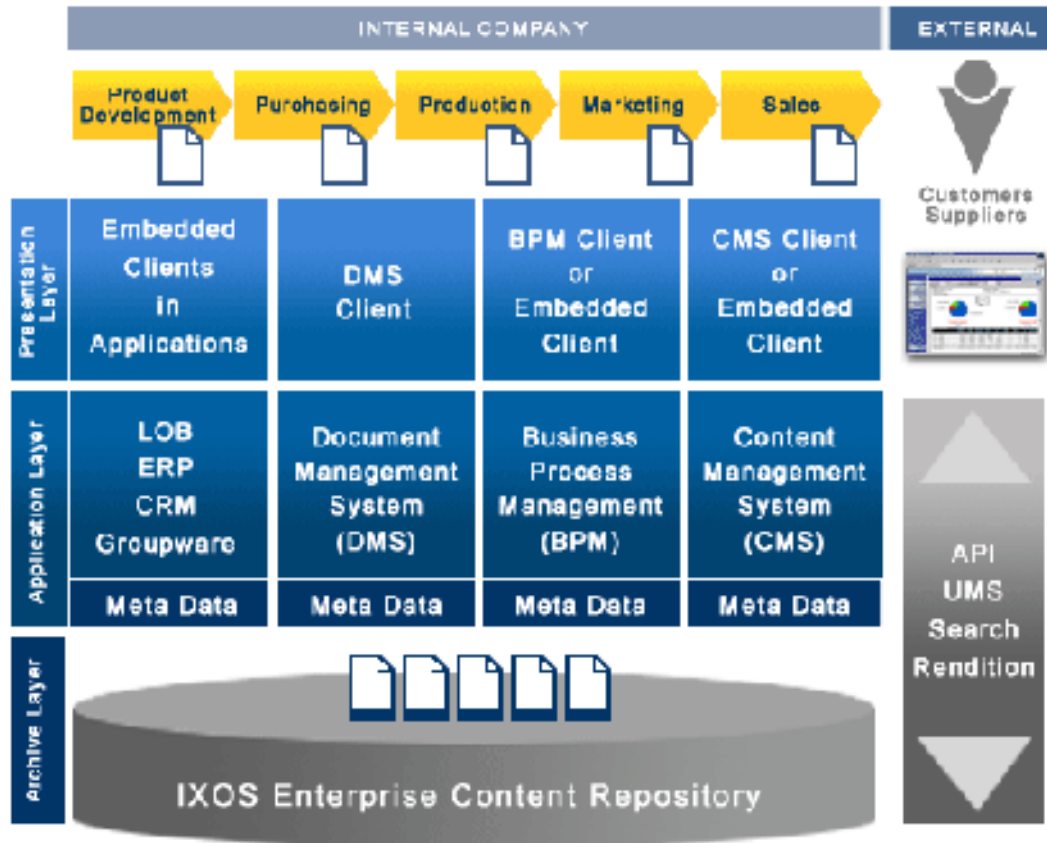
# IBM DB2 Commonstore for Lotus Domino



# IXOS -eCONserver for Lotus Notes

- Is part of IXOS' content management solution
- Supports Notes 4.x upwards
- Supports off-line archives
- Fully managed through the Notes Client
- Archived messages and attachments can be retrieved directly from Lotus Notes doclinks
- As with Commonstore, specific design elements must be added to allow databases to be archived
- Uses it's own storage manager and Microsoft SQL database server
- Uses Domino full-text search in conjunction with Ixos search engine

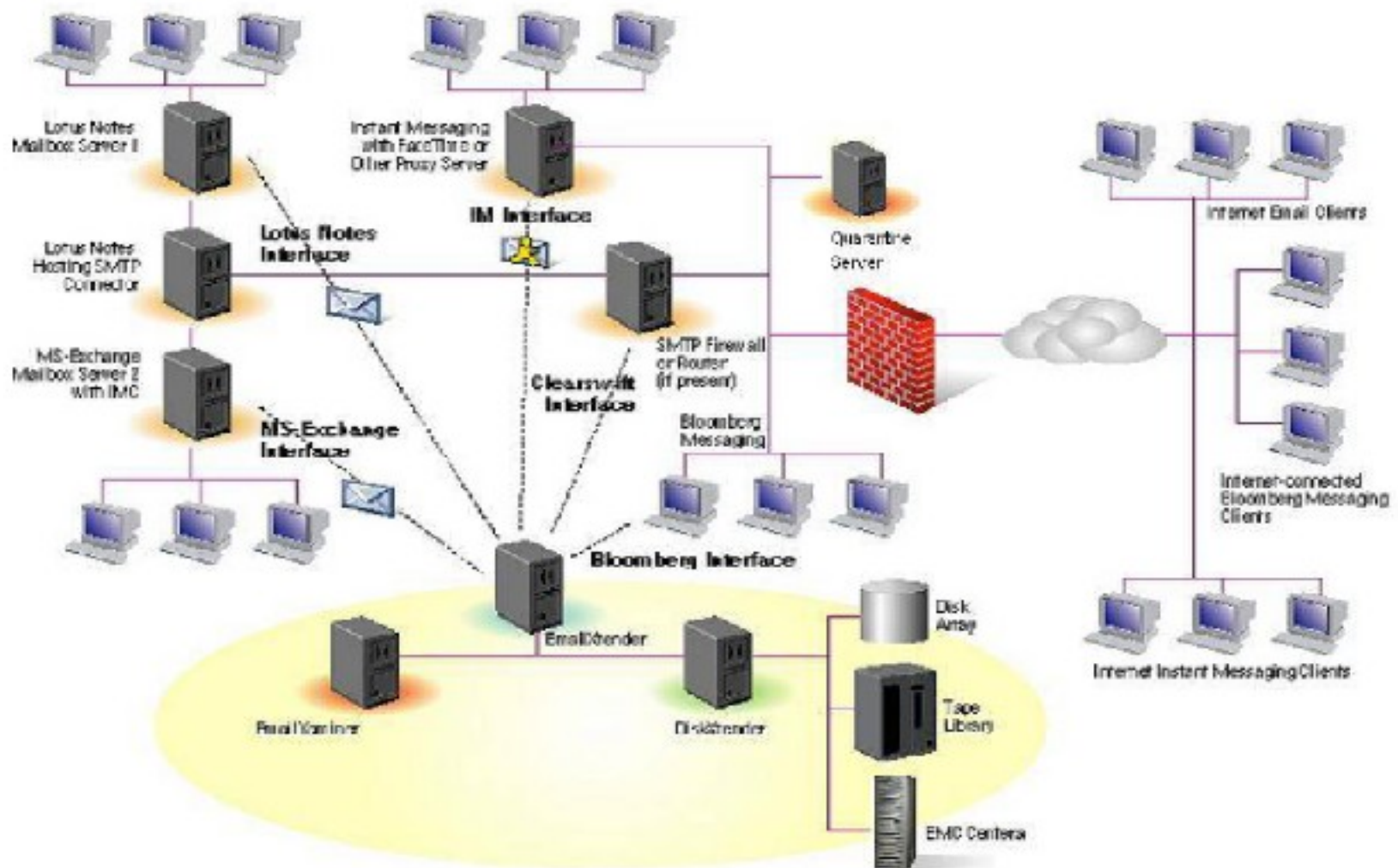
# IXOS -eCONserver for Lotus Notes



# Legato eMailExtender for Lotus Notes/Domino

- Email is captured in real time or scheduled basis
- Policy-based decisions on what to archive
- Unique duplicate message removal process
- Searchable index created
- Supports IM, SMTP and Exchange archiving
- Works with Legato DiskExtender to manage storage mediums and Microsoft SQL database server
- Supports EMC Secure storage (Centera)

# Legato eMailExtender for Lotus Notes/Domino



# How can Computacenter help?

- Computacenter Archiving service
  - Help you to identify your key requirements
  - Help plan the design and implementation of your solution
  - Select the most appropriate product set
  - Reduce the time taken to implement the solution
  - Using our existing knowledge both of archiving and storage and backup solutions

# Further Information

- Computacenter Archiving service
- Slides – [www.elsmore.net](http://www.elsmore.net)
- Vendor details
  - [www.ibm.com/software/data/commonstore/lotus](http://www.ibm.com/software/data/commonstore/lotus)
  - [www.ixos.com/home/products/pro-integration/pro-inte](http://www.ixos.com/home/products/pro-integration/pro-inte)
  - [www.legato.co.uk/products/emailxtender/lotus.cfm](http://www.legato.co.uk/products/emailxtender/lotus.cfm)

# Questions

warren.elsmore@computacenter.com