



IBM Software Group

## **E-mail Management & Archiving**

- Reduce IT Costs and Improve Email Performance**
- Improve Customer Service**
- Address Compliance Requirements**
- Using E-mail as a Business Document**



**ON DEMAND BUSINESS™**

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# Agenda

- Introduction
  - ▶ What's driving the need for e-mail archiving today?
- E-mail archiving solutions – IBM's approach
  - ▶ To manage the growth of the email / messaging system
  - ▶ To address compliance requirements
  - ▶ To treat emails as business records
  - ▶ As part of an overall Enterprise Content Management Solution
- Demonstration
- Q &A
- Close



# Recent News



“Wall Street Firms fined for not preserving e-mail”



“We think that the emails were destroyed”

Page 4A Friday, July 11, 2003

## Iowa looks at policy for e-mail records

By CLARK KAUFFMAN  
REGISTER STAFF WRITER

The proliferation of electronic communication means that federal, state and local officials rely increasingly on e-mail to form policy and make decisions.

Although e-mail provides a record of such discussions, there's no guarantee of permanency. Iowa law does not require the preservation of e-mails between government officials unless they are the subject of a pending Open Records Law demand for disclosure.

Brian Gentry, legal counsel for Gov. Tom Vilsack, said Iowa state government has "no uniform guidelines on how to handle electronic messages."

E-mail accounts must be periodically purged for cost reasons. Computer technicians can retrieve e-mails, however government agencies can't read them.

Typically, some government agencies delete their e-mails after 30 days for archival purposes. Other agencies delete their records.

Within Iowa state government, most agencies' e-mails are archived on electronic tape, but there is no uniform policy on how long those tapes are kept. Some agencies maintain at least two years' worth of archived e-mails. Others, such as the governor's office, keep only a month's worth.

Workplace e-mails between government officials are typically considered government documents subject to public disclosure unless the contents of the message

are covered by an exemption to the Iowa Open Records Law.

As a result, e-mails entirely unrelated to government work are often subject to public disclosure—an embarrassing government officials in other states have learned. In Colorado earlier this year, Arapahoe County officials made public hundreds of sexually explicit e-mails the county recorder had sent to fellow county employees during work hours using his work computer.

In Iowa, state officials are in the process of developing policies and procedures to determine what e-mails should be saved and how they can best be archived, Gentry said the attorney general's office is consulting with state archivists on what they hope will be guidelines to be followed by all state agencies.

E-mails aren't the only records stored electronically. For two years, the state has maintained a Web-based Electronic State Documents Repository that's accessible to the public. State agencies are to archive their public reports and newsletters at the Web site.

But of the 55 state agencies listed at the repository, only 14 have any documents stored there for public access. Barbara Corwin, the head of technical services at the State Library of Iowa, says that's because few state agencies have the necessary software.

A new site, Iowa Publications On-Line, has been in development for the past six months.

### How it unfolded

**FEB. 6:** The Des Moines Register requests the governor's e-mails pertaining to the controversial Iowa Department of Economic Development Foundation.

**FEB. 12:** The governor's director of communications, Amanda Crumley, provides what she describes as "all of the records" requested by the newspaper.

**FEB. 14:** The Register tells Gov. Tom Vilsack's chief of staff, Steve Gleason, that it believes some records are being withheld. Gleason offers to have the state's Information Technology Department (ITD) search an electronic tape that backs up and archives e-mail messages.

**APRIL 29:** Crumley tells the Register: "We had ITD do a backup to see if there were any e-mails that could have possibly been released and there were not. Now, their backup system only backs for 30 days — so nothing was found through that ITD check." She says the archive was "searched from a point in time in February through a point in time in March when records were still available." Asked when the search was conducted, she says: "You put in your request and we were on the case immediately."

**MAY 2:** The governor's lawyer acknowledges that no search of the backup tape was ever done, and that after 30 days the e-mails stored on the tape were routinely discarded. The Register prepares a lawsuit alleging the records were illegally destroyed while subject to an Open Records Law demand.

**JUNE 26:** A second search of computers within the governor's office produces additional foundation-related records. Gleason blames the "stupidity" of the staff and himself for the failure to turn over the requested records in February.

**JULY 1:** Vilsack says he contributed to the problem through his own ignorance of computers. "I don't even know how to send a response to an e-mail, that's how technologically deficient I am," he says.

# THE WALL STREET JOURNAL.

**FT FINANCIAL TIMES**  
World business newspaper

## State erased public records

They were deleted after the Register sought e-mails about the search for a new development director.

By CLARK KAUFFMAN  
REGISTER STAFF WRITER

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E-mail records of Gov. Tom Vilsack's staff were destroyed after The Des Moines Register requested access to the files in February, a lawyer for the governor said Friday.

The records were destroyed despite numerous written and spoken requests made under the Iowa Open Records Law while the documents still existed. The governor's



# Email problems are unceasing

(Ovum 2004)

- “.... businesses can’t afford to be without their email systems, and they cannot afford to lose **business-critical email that provides a record of their business decisions and transactions**. Such records are required for accountability and productivity purposes.”
  - ▶ **Mailboxes are overflowing & IT is forced to restrict the size of employees mailboxes**
  - ▶ **Email systems don’t provide searchable archive storage**
  - ▶ **Litigation costs**
  - ▶ **Non-compliance with regulations and laws**
  - ▶ **Email systems do not provide an audit trail**
  - ▶ **Email systems do not help email value (as a business document) to be realised**
    - **Each mailbox is an information silo**



# Mailbox Management Challenges

- **Mail boxes**
  - ▶ Mail is not just a communication tool
  - ▶ Mailbox is often used for keeping track of business information (customer folder, project folder, etc...)
  - ▶ Mailbox can be a mixture of important business data, informal communication, even private mails
  - ▶ Often, there are no retention policies in place
- **Current industry data**
  - ▶ 76 emails/day/user
  - ▶ 80-100KB/email
  - ▶ 140MB / month/user
  - ▶ 1.7GB / year/ user
  - ▶ 3000 users : 5TB / year
  - ▶ 80% of organizations use email to close business transactions / orders.
  - ▶ Average number of e-mails that are kept: 10 daily per user (going up)
- **Message storage growth in excess of 25% per year!**



# Why organizations are archiving email

## ▪ Storage / Mailbox Management:

- ▶ to improve email server performance & reduce IT (storage & labor) costs
- ▶ to manage the huge growth in email volumes – more users, larger mail boxes, growing size of attachments, email message storage redundancy
- ▶ The lack of email management impacts end user productivity.

## ▪ Regulatory Compliance & Legal Discovery

- ▶ to comply with laws, regulations and internal policies (search, monitoring, supervision, discovery & retention)
- ▶ to protect themselves from lawsuits by having a formal retention policy (FORRESTER, by Erica Rugullies and Robert Markham, 2004)
- ▶ to reduce the cost of providing email evidence as part of litigation

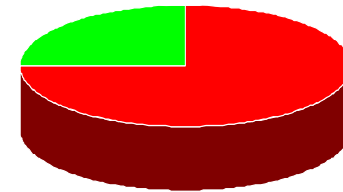
## ▪ Information Sharing

- ▶ to make the email & attachment (content) “business records” available to others in the organization (for customer service, cross marketing, fraud detection, etc.)



## What is in the mail box?

- **90% of all e-mails have no attachments**
  - ▶ Emails with graphics continue to take up more storage space
- **10% have attachments.....**
  - ▶ However, attachments occupy about 75% of the total storage
  - ▶ Attachments can be enormous
- **Old e-mails**
  - ▶ Little access
  - ▶ Are kept for possible later look-up
  - ▶ Have potential issues for compliance reporting
  - ▶ Users don't want to delete old emails "just in case they may need it"



■ Attachments  
■ Mail body



# Specific Industry Requirements

- **Financial / Insurance firms**
  - ▶ Email and Instant Messaging archiving to non-erasable storage devices
  - ▶ Supervision - monitoring, sampling, workflow, auditing, reporting
- **Cross industry (Manufacturing, Healthcare, Legal, Government, etc.)**
  - ▶ Providing enterprise access to email as a business / transaction record
    - accessing old email that has been stored but not deleted
  - ▶ Litigation support – to produce evidence to support litigation
    - discovery, reporting, and case production
  - ▶ Content filtering to support corporate compliance policies
    - Scanning and quarantine of potentially offensive or inappropriate email is becoming more prevalent.
  - ▶ Records Retention
    - Corporate File Plan – declare, classify, manage and destroy
    - Save eMails for only a specified period of time to reduce legal exposure
    - Event based management, legal hold, final disposition management





# Who is concerned about email archiving?

- ▶ **Compliance Officer/Manager/Director**
  - *regulatory compliance*
- ▶ **Chief/Senior Counsel**
  - *litigation support / protection*
- ▶ **Chief Security Officer**
  - *compliance & litigation*
- ▶ **IT Mgr, Notes Administrator or Exchange Administrator**
  - *control email growth & administration*
- ▶ **CIO, CEO**
  - *reduce costs (email infrastructure & lawsuit exposure)*
- ▶ **Line of Business, Sales, Customer Service Exec.**
  - *customer service & sales support*



# Legal and Regulatory Requirements

- Compliance with state or federal legislation, industry regulations
- Often document retention rules are specified
- Content supervision may be required
- E-mails as evidence in legal cases / litigation



**SEC Rule 17a-4**

**Digital Archiving Requirements**



**NASD Rule 3010 & 3110 Supervisory Requirements**

## Regulations Related to E-Mail Archiving

Industry	Regulatory agency	Regulations related to e-mail archiving
Financial services	Securities and Exchange Commission (SEC), <a href="http://www.sec.gov">www.sec.gov</a>	<ul style="list-style-type: none"> <li>• SEC 17a, <a href="http://www.law.uc.edu/CCL/34AcRIs/reg19B.html">www.law.uc.edu/CCL/34AcRIs/reg19B.html</a></li> <li>• SEC 17 CFR Parts 270 &amp; 275</li> <li>• SEC Reg FD</li> </ul>
	National Association of Securities Dealers (NASD), <a href="http://www.nasd.com">www.nasd.com</a>	<ul style="list-style-type: none"> <li>• NASD Conduct Rule 3010, <a href="http://www.nasdr.com/pdf/text/nasd_manual.pdf">http://www.nasdr.com/pdf/text/nasd_manual.pdf</a></li> <li>• NASD Conduct Rule 2210</li> <li>• NASD Conduct Rule 2310</li> </ul>
	New York Stock Exchange (NYSE), <a href="http://www.nyse.com">www.nyse.com</a>	<ul style="list-style-type: none"> <li>• NYSE 342</li> <li>• NYSE 440</li> </ul>
Health care, Insurance	US Dept. of Health and Human Services, <a href="http://www.hhs.gov">www.hhs.gov</a>	<ul style="list-style-type: none"> <li>• Health Insurance Portability and Accountability Act (HIPAA), <a href="http://www.cms.gov/hipaa/">www.cms.gov/hipaa/</a></li> </ul>
Pharmaceuticals, medical devices	US Food & Drug Administration, <a href="http://www.usfda.gov">www.usfda.gov</a>	<ul style="list-style-type: none"> <li>• 21 CFR Part 11, <a href="http://www.21cfrpart11.com/">www.21cfrpart11.com/</a></li> </ul>
Legal (cross-industry)	US government	<ul style="list-style-type: none"> <li>• Federal Rules of Civil Procedure 26(a)(1), <a href="http://www.law.cornell.edu/rules/frcp/overview.htm">www.law.cornell.edu/rules/frcp/overview.htm</a></li> </ul>

Source: Giga Information Group



## E-mails as legal evidence

- ▶ Informal e-mails have played a critical role in lawsuits
- ▶ Often there is no policy to manage email as a business record
- ▶ A formal records management or archiving policy can prevent intentional or accidental deletion of email (evidence)
- ▶ Central archive makes search and restore easy (versus mounting backup tapes and printing all emails)
- ▶ Email messages including message body and attachments can be searched and discovered



## E-mail active-archiving systems should:

(by **Gartner**, 24 Nov 2003, What Is E-Mail Active Archiving? )

- Automate the **capture and archiving** of all e-mail messages
- Provide the end user the option of **accessing** the archive via a Web client or through the e-mail client.
- Include **auditing** to track access to archived records
- Support the secure **storage** of increasingly large archives offering multiple storage options for the archive
- Exploit **Hierarchical Storage Management (HSM)** technology to automatically prune the active email data store for more efficient operation
- Offer **migration tools** and temporary offline local storage options to eliminate the storage of e-mail messages in personal folder storage outside the control of the archive system
- Package or integrate with **tools to manage the discovery** process, narrowing the search and managing the steps needed to deliver records
- Include basic **records management** features or integrate with a robust records management solution to manage the life cycle of the records to ensure proper retention and deletion
- Package **tools for sampling and management of the compliance** process



## Efficient & automatic email &/or attachment offload

- Move email &/or attachments from personal mail boxes in expensive production environment to inexpensive, searchable storage environment (electronic archive)
- User-driven archiving
- Automatic (rule based) archiving
  - ▶ Simple rule set (policies)
    - Document age (modification date, access date), Document size, Mail box size, etc.
  - ▶ Various archiving options
    1. Attachment archiving
      - Mail body remains within email client
    2. Stub archiving
      - Leaves the mail header ("stub") in email client as a placeholder
      - Placeholder can be text, a retrieval "hot-spot" or an intelligent abstract of the message
    3. Removing the entire message
      - Can still search for email
- Try to maintain the original email form "fidelity" / appearance.
- Some organizations convert emails to PDF, TIFF, rich text, etc. and store in repository.

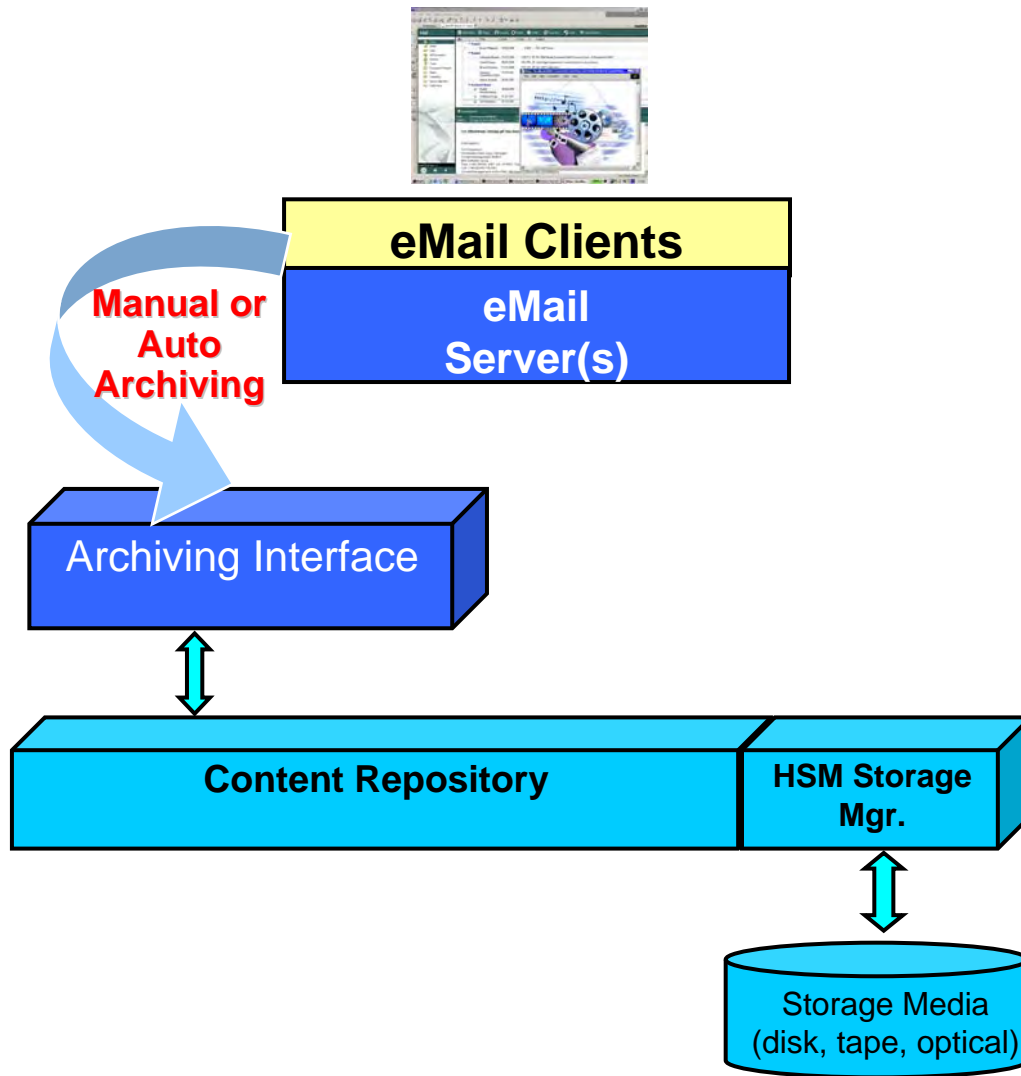


## Characteristics of an Electronic Archive System (repository)

- Flexible mapping of e-mail message attributes such as subject, sender, date, etc. to repository index meta data
- Sometimes other attributes are added to the email such as customer number, vendor number, policy number, etc.
- Email may be stored in subject-matter “folders” with other application content such as order documents, insurance or loan applications, statements, written correspondence, etc.
- Full text search option
- Reduced storage costs with Single-Instance-Store
- Flexibility to store on tape, hard disk, non-erasable disk or optical (WORM), etc.

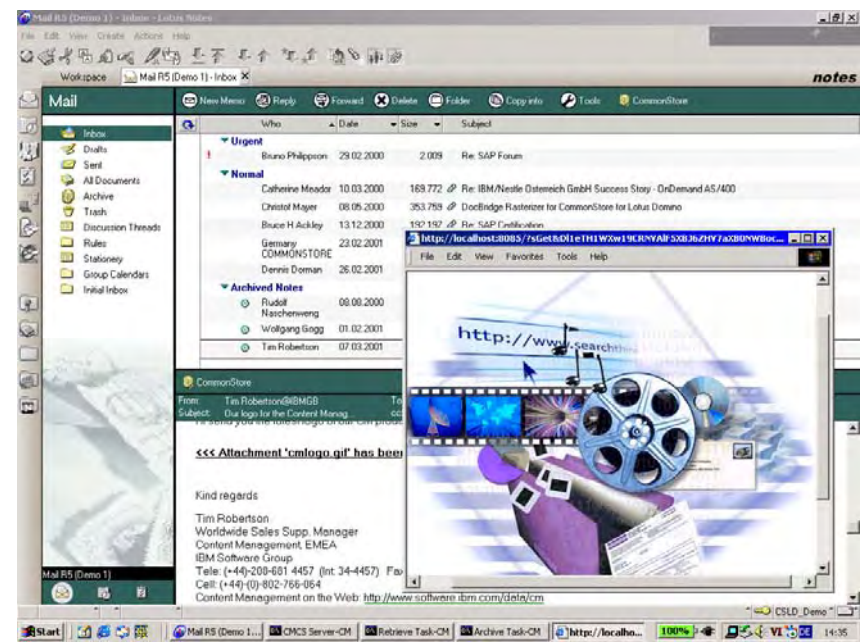
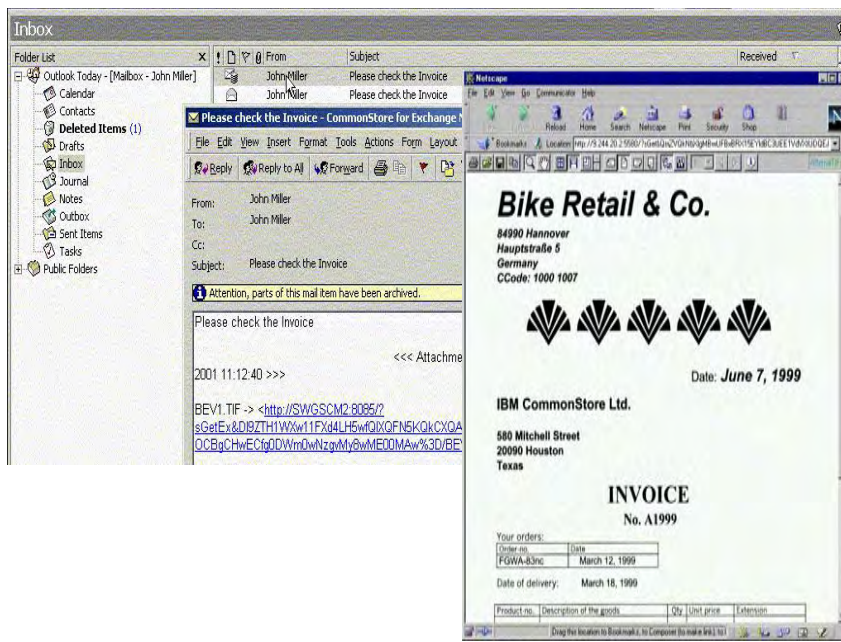


# Email Archiving software Components



## Easy retrieval through the messaging client (Notes, Outlook)

- Fully integrated, easy to use
- Consider mobile user needs
- Typically the client of the electronic archive can also provide access to emails if user has proper security
- No Client code installation needed (integrated in mail template)





# Example: Attachment archiving

New Memo
 Reply
 Forward
 Delete
 Folder
 Copy into
 Tools
 CommonStore

**Deborah Meeker-pallien@IBMUS**  
 01/07/2002 02:37 PM

To: Reinhold Engelbrecht/Austria/IBM@IBMAT@IBMDE  
 cc:  
 Subject: C.A.R. related question

Reinhold -

many options for this customer are being considered. Which one do you think is the best?

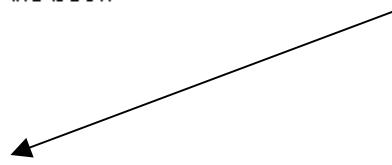
**Option A**

<<< Attachment 'optionA.jpg' has been archived by user 'CN=Domino Admin/O=demo' on '11/28/2003 04:25:50 AM'. >>>

**Option B**

<<< Attachment 'optionB.jpg' has been archived by user 'CN=Domino Admin/O=demo' on '11/28/2003 04:25:50 AM'. >>>

Attachment placeholders



# IBM CommonStore Demonstration

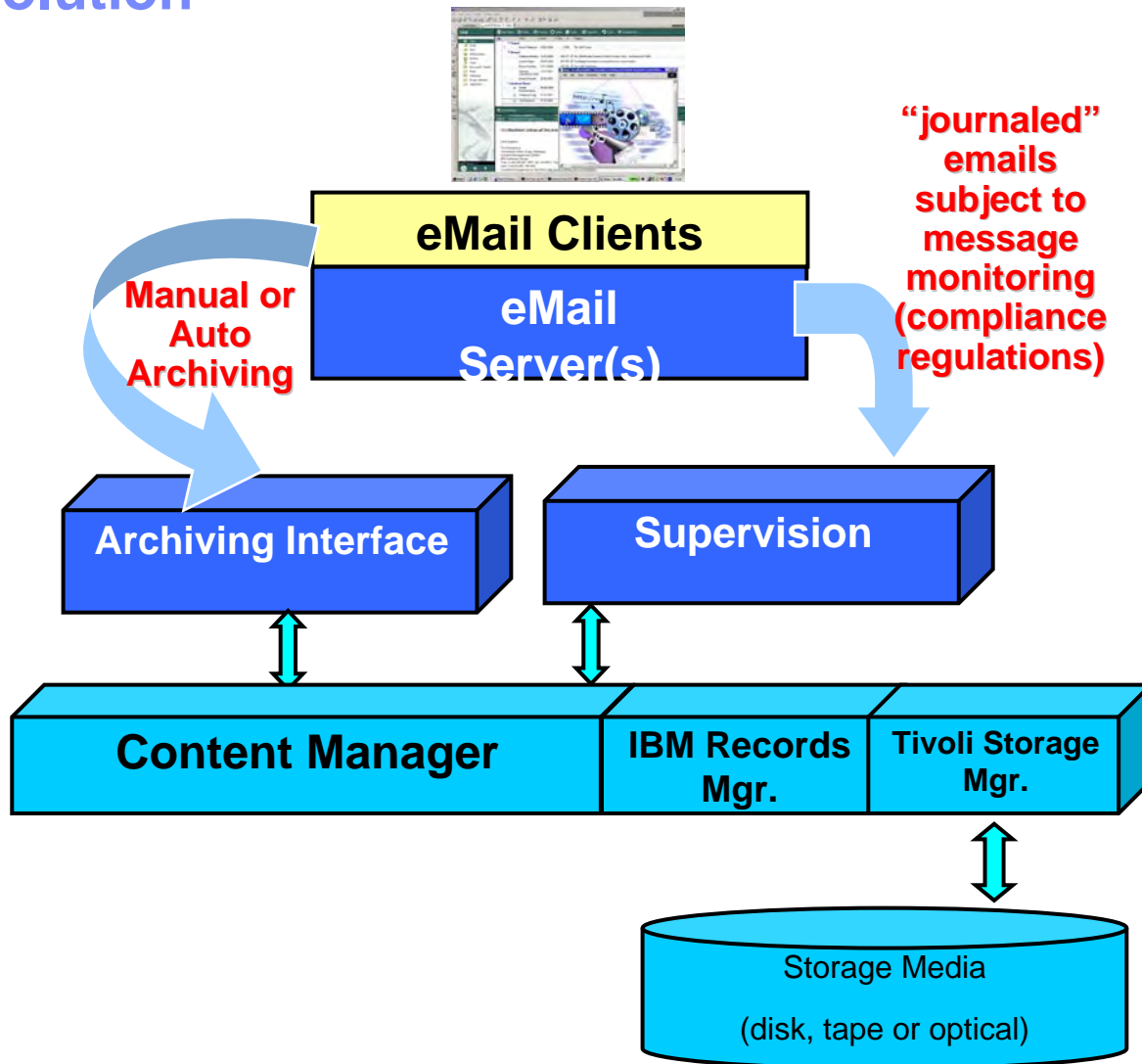


## Additional Email Archiving Functionality:

- Message Monitoring (Supervision)
- Email Search (Discovery)
- Records Management
- Enterprise Content Management System



# IBM Content Manager for Message Monitoring & Retention Solution



# Email Discovery

- Need is often driven by legal dept., compliance dept., marketing & sales, customer service, auditors, fraud prevention, etc.
- Provides:
  - ▶ Fast and reliable access to archived email (across the enterprise)
  - ▶ Controlled deletion for risk mitigation
- Discovery activities against the eMail archive
  - ▶ Easy to use and intuitive web based interface
  - ▶ Search email header data fields: To, From, Date, Cc, Bcc, Subject
  - ▶ Search email bodies and attachments via full text index
  - ▶ Search with keywords, phrases, Boolean logic and wild cards
- Selected eMails can be exported for further analysis and delivery to other organizations if needed (SEC for example)
- National Language Support (NLS)
- IT Benefits
  - Backup tapes are not an option (restore too slow)
  - Central archiving easier to search than user local mail archives
  - A central, easy-to-use search interface

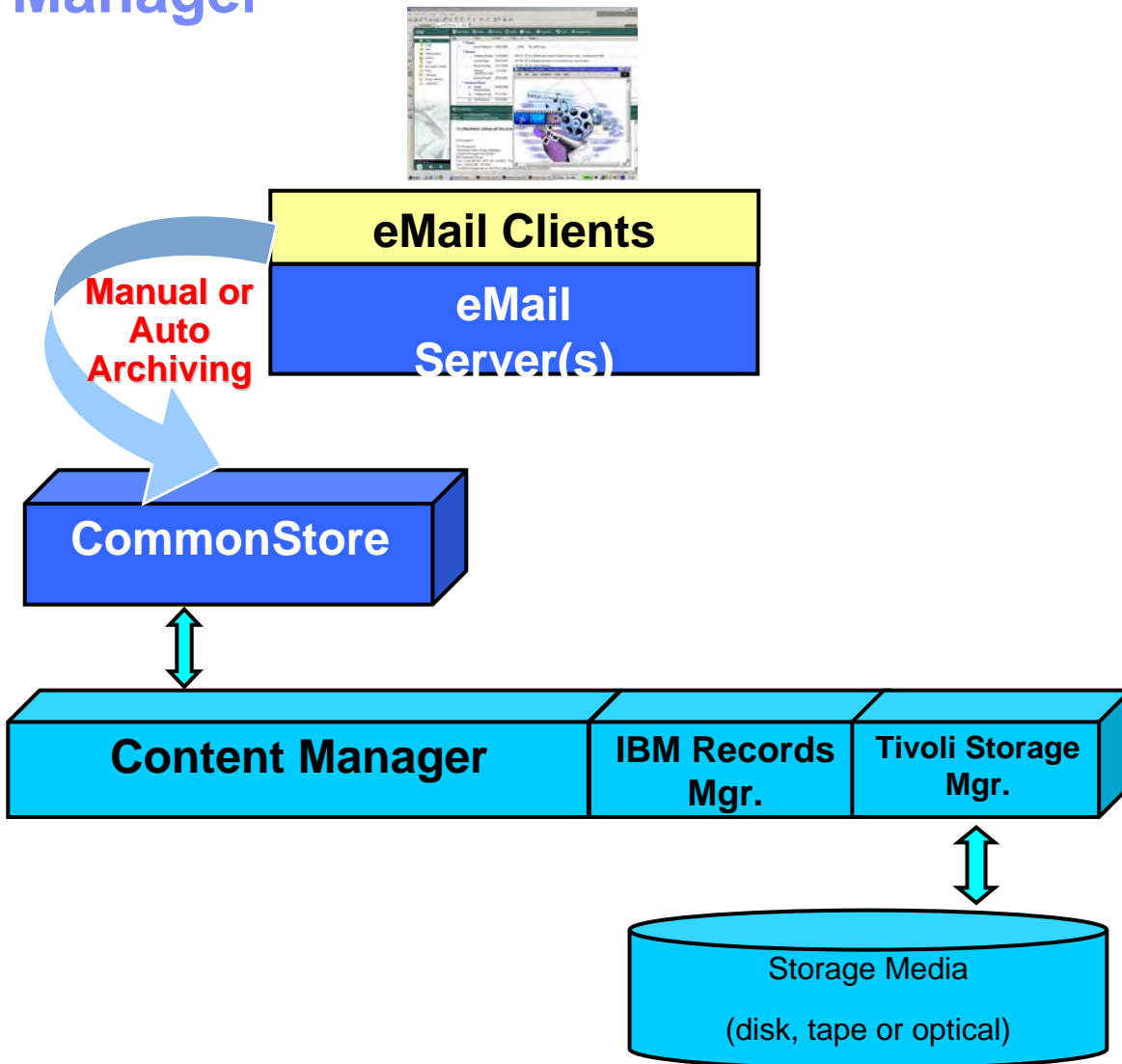


## Declaring e-mails business records

- **Retention management with Records Management software**
- **User can take responsibility to declare e-mails as business records or have the system do it automatically**
- **Archive to content repository**



# CommonStore with Content Manager & IBM Records Manager

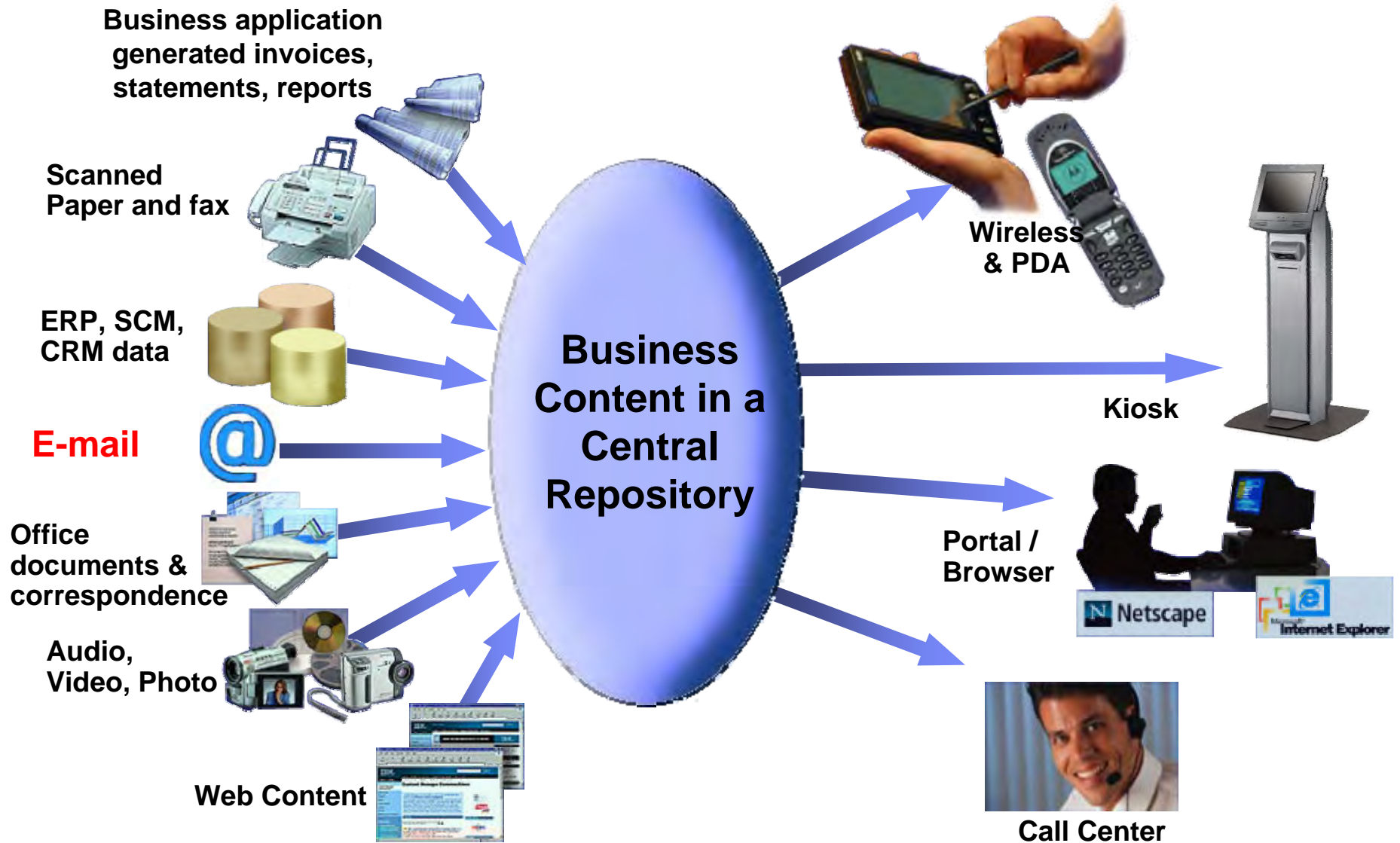


## Retention Management with IBM Records Manager

- User can take responsibility to declare e-mail as business records
- Pop-up window to enter additional information (categorization) or
- Declaration, classification and archiving are done in one step
- Drag-n-drop support
  - Simply move message to a pre-defined or monitored folder (auto-classification and archiving)
- Detailed logging
- Only one message copy is stored in archive
- Easy to use
- Reliable, event or time based removal
- Place removal on hold if required
- Detailed logging
- Secure Storage

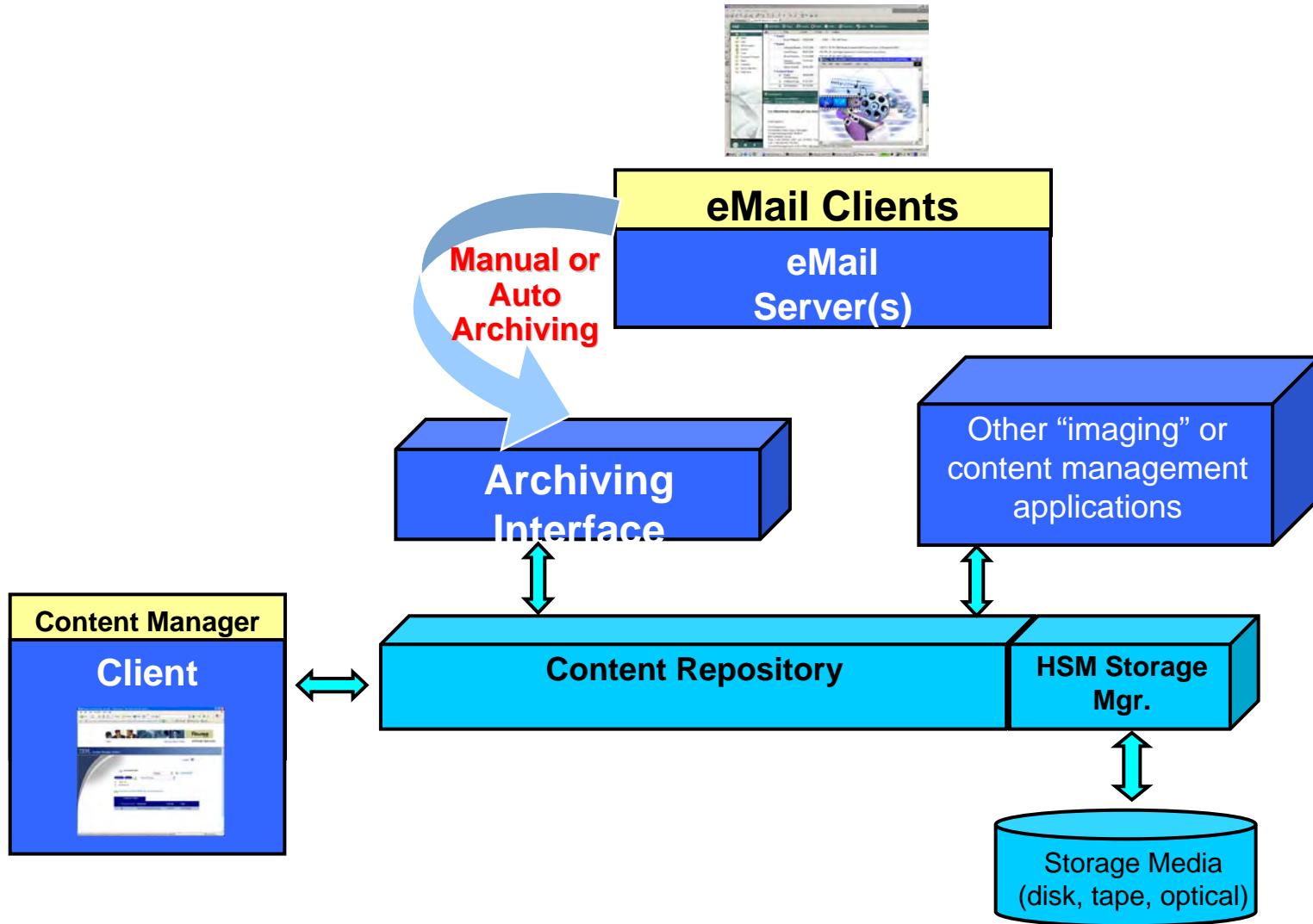


# Email Archiving can be part of an Enterprise Content Management Solution





# The central “content” repository can be used for other content management applications



## Use the Content Manager Client for easy retrieval of emails and other content from the content repository

**Basic Search**

Item Type: CSLDMailView

CSLDMailSubject (?,\*): Like \*Boston

CSLDMailFrom (?,\*): Equal to

CSLDMailPostedD: Equal to

Document Routing Criteria:

Status: <All Items>

Process: <All Processes>

Step: <All Steps>

All versions

Documents Only

Folders Only

Documents and Folders

Buttons: OK, Reset, Cancel, Help

Full Text indexing and retrieval  
from Content Manager

1. Enter a search
2. Get a hit list (results)
3. Click to open document

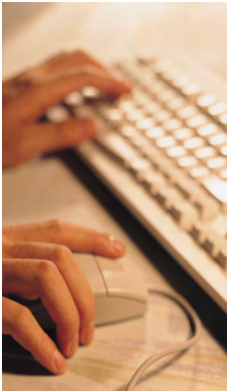
**Client for Windows - [Folder: <Search Results>]**

File Actions Edit Worklist Search Options Window Help

**<Search Resu** CSLDMailView

CSLDMailSubject	CSLDMailFrom	CSLDMailPost
Re: Demo-Platz Fairorg für die D...	CN=Dorothee Stork/OU=Germany/O=IBM	2002-07-10-17.28.03.79
The Top Six Reasons Computers ...	CN=Germany COMMONSTORE/OU=Germ...	2001-02-23-05.18.33.27
Re: SAP Forum	CN=Bruno Philippson/OU=Italy/O=IBM	2003-07-31-08.45.50.23
Re: C.A.R. Response	CN=Mike Davis/OU=Birmingham/O=IBM	2002-04-29-20.39.50.46
Re: C.A.R. Response	CN=Mike Davis/OU=Birmingham/O=IBM	2002-04-29-20.39.50.46
Re: C.A.R. Response	CN=Mike Davis/OU=Birmingham/O=IBM	2002-04-29-20.39.50.46
encrypted	CN=Domino Admin/O=demo	2003-11-25-04.41.02.22
HOW TO INSTALL MOBILE USER ...	CN=Carol Bean/OU=Syracuse/O=IBM	2002-05-23-08.57.30.35
Test	CN=Domino Admin/O=demo	
email with attach	CN=Joe Web/O=demo	2003-11-17-09.43.24.52

# Case studies



## **Insurance company (US) with 50,000 Notes users**

- ▶ Has used CommonStore for SEC compliance since 2000
- ▶ Reference video on Internet
  
- Archiving
  - ▶ Automatic preprocessing and archival with Notes agent
  - ▶ Index fields: recipient, sender, date, subject
  - ▶ 150.000+ e-mails per day; currently 150 million mails in archive (approx. 7 TB)
  - ▶ Storage on WORM tape
  
- Old backup tapes
  - ▶ Restored back to 1998
  
- Instant messaging
  - ▶ Have started archiving Sametime chat logs

## **Large enterprise in the travel industry with 50,000 Notes users**

- ▶ Before: 12 TB on Domino servers
- ▶ After: 4 TB on Domino server, 8 TB in Content Manager

## **Insurance company with 2,500 Exchange users**

- ▶ Before: 600 MB average mailbox size
- ▶ After: just 200 MB
- ▶ Saving every month: 15 GB

**Commonstore Success Stories - <http://www.ibm.com/software/success>**



## In summary, email management ...

- Reduces email operational costs
  - ▶ Fewer disk storage systems & servers
    - Single-instance-store
    - Compression
  - ▶ Faster email server backup & restore
  - ▶ Lower litigation costs with efficient, accurate email retrieval
  - ▶ Less costly disaster recovery implementations
  - ▶ No need for local archives on user PC workstations
  
- Provides business unit benefits
  - ▶ Improves system performance (response time)
  - ▶ Allows messaging system (email) content to be used as business documents
  - ▶ Increases user productivity by reducing email search and retrieval times
  - ▶ Provides increased business content security
  - ▶ Safely archives email for regulatory, legal or corporate compliance reasons
  - ▶ Improves customer service



# Questions?

