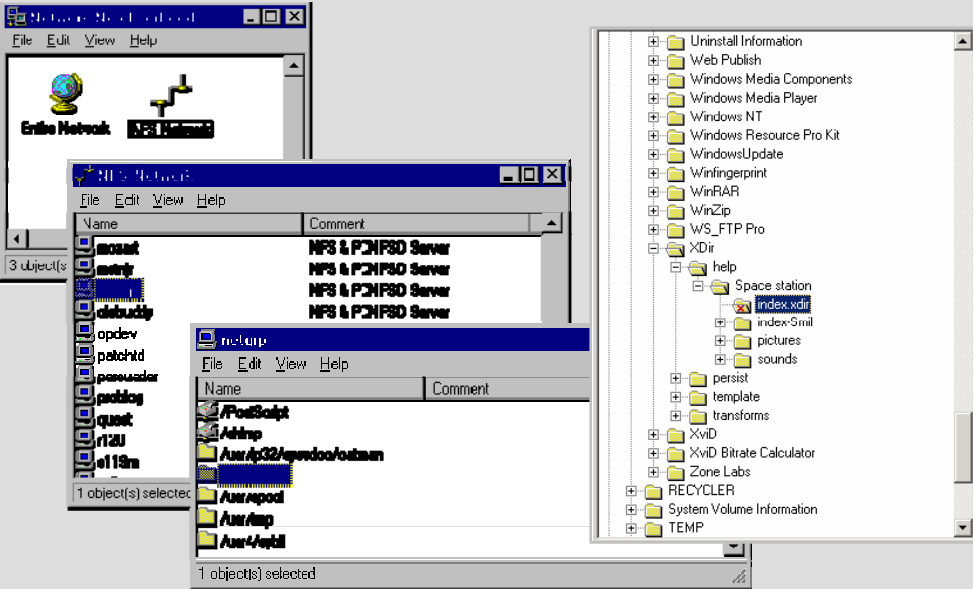


# Open Systems File / Email System Assessment (FSA / ESA)

## Challenges with growing File systems and Email platforms

- Keeping **inactive or infrequently accessed information** on primary storage is **increasingly costly and inefficient**
  - Primary storage is typically more expensive
  - Backups and restores take longer and contribute to storage consumption
  - Application performance can suffer



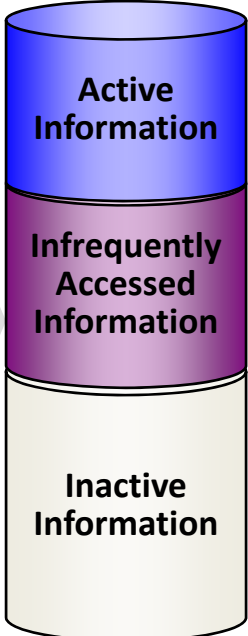
The screenshot shows a Windows Explorer window displaying a file system. The left pane shows a tree view of folders and files, including 'Uninstall Information', 'Web Publish', 'Windows Media Components', 'Windows Media Player', 'Windows NT', 'Windows Resource Pro Kit', 'WindowsUpdate', 'Winfingerprint', 'WinRAR', 'WinZip', 'WS\_FTP Pro', and 'XDir'. The right pane shows the contents of the 'XDir' folder, including 'help', 'Space station', 'index.xdir', 'index-Smail', 'pictures', 'sounds', 'persist', 'template', 'transforms', 'XviD', 'XviD Bitrate Calculator', 'Zone Labs', 'RECYCLER', 'System Volume Information', and 'TEMP'. The bottom pane shows a list of files with columns for 'Name' and 'Comment', including files like 'mooat', 'mstrty', 'clububly', 'opdev', 'patchtd', 'paseuader', 'pooklog', 'quest', 'r12U', and 'e118m'. The 'mstrty' file is selected, and its comment is 'NFS & PCNFSD Server'. The bottom pane also shows a list of files with columns for 'Name' and 'Comment', including files like 'PostScript', 'Astrimp', 'AstrAp32/aspdoc/outman', 'AstrApod', 'Astr/Amp', and 'Astr4/epid'. The 'AstrApod' file is selected, and its comment is 'NFS & PCNFSD Server'.

**51% of open system data is unnecessary, duplicate, or non-business related**

**68% of data has not been accessed for 90 days or more**

**55% of unplanned server outages occur from disk space consumption**

**60% improvement in management efficiency is needed every year to keep up with storage growth**



The diagram shows a vertical cylinder divided into three horizontal sections. The top section is blue and labeled 'Active Information'. The middle section is purple and labeled 'Infrequently Accessed Information'. The bottom section is yellow and labeled 'Inactive Information'.

## What is File / Email Assessment (FSA/ESA) ?

Designed to analyze and profile your current storage resources and report your wasted assets

Reports enable resource-constrained IT operations to efficiently understand their storage growth

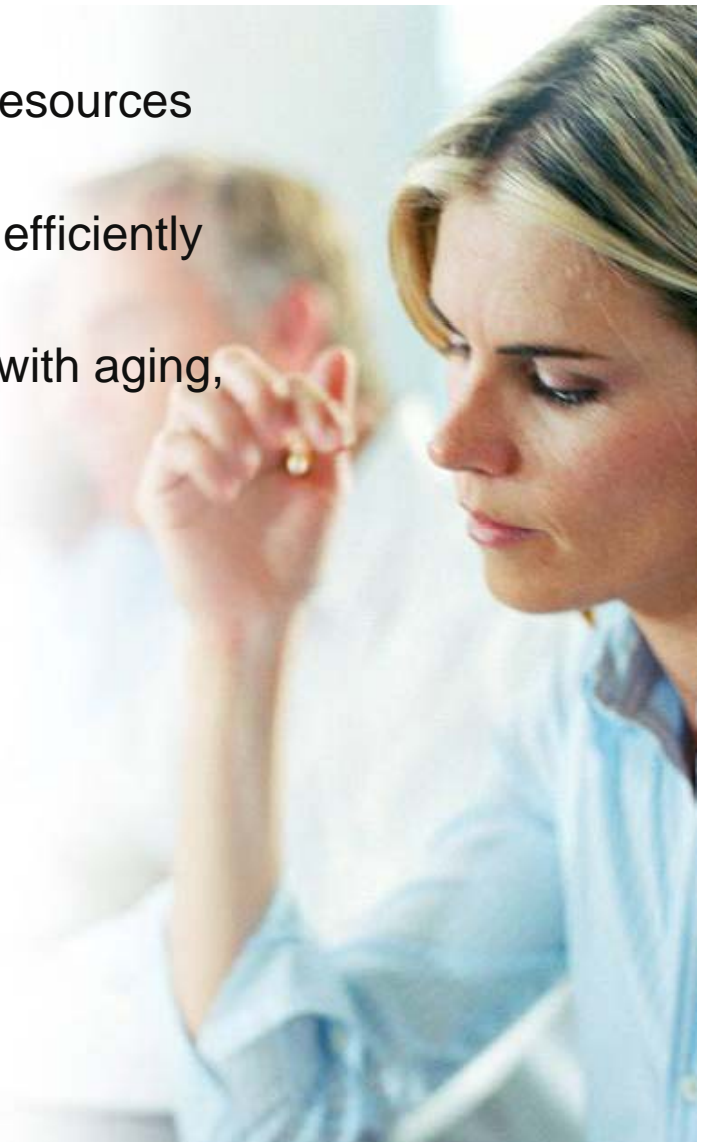
Profiles unstructured data (pdf, jpg, mp3, bmp, pst...) with aging, last access times, duplicates, etc...

What do I do with the report?

- J Discover data in your existing storage environment
- J Assess what to do with the data
- J Reclaim wasted storage capacity by moving data to ATA or second-tier storage

What is the long-term gain?

- J Reduces recurring backup costs
  - J Tapes
  - J New tape libraries
- J Delays capital expenditures for new storage
- J Results in lower total cost of ownership

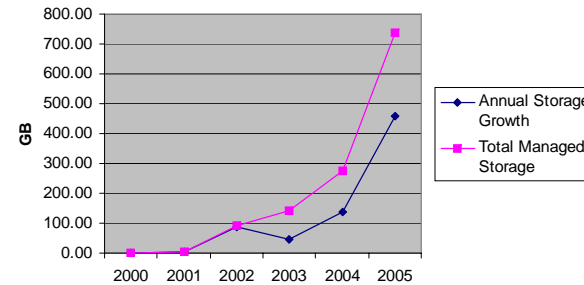


# FSA – Detailed Analysis Reporting

## Duplicate Data/Single Instance Storage

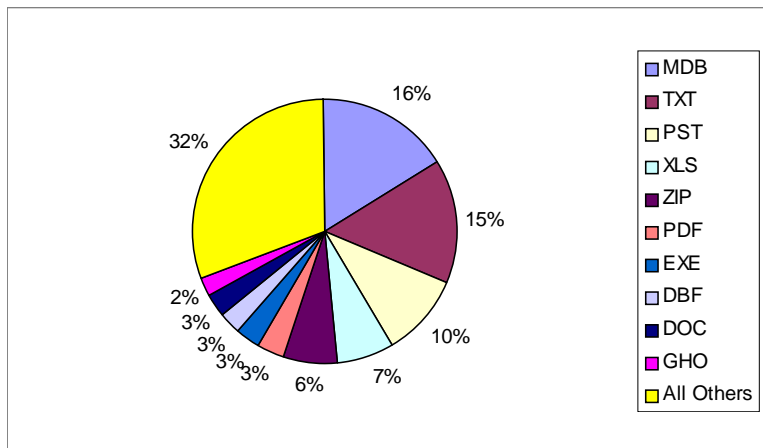
File Count	File NAME	Create Date/Time	Storage (bytes)	Savings (MB)
813	banner.gif	9/21/2004 4:28	9563	7592.50
813	linebox.gif	9/21/2004 4:28	84	66.69
813	linegray.gif	9/21/2004 4:28	50	39.70
813	tableft.gif	9/21/2004 4:28	44	34.93
813	tabright.gif	9/21/2004 4:28	214	169.90
812	back.gif	9/21/2004 4:28	114	90.40
812	back2.gif	9/21/2004 4:28	132	104.67
812	path.gif	9/21/2004 4:28	108	85.64
812	border.gif	9/21/2004 4:32	49	38.86
812	bullet.gif	9/21/2004 4:32	52	41.23
792	next.gif	9/21/2004 4:28	114	88.17
792	next2.gif	9/21/2004 4:28	122	94.36
699	cleardot.gif	9/21/2004 4:28	43	29.35
698	arch.gif	9/21/2004 4:32	5115	3486.59
698	logo_top.gif	9/21/2004 4:32	16113	10983.28
340	README.WRI	11/4/2003 14:09	2574	854.65
234	question.gif	9/21/2004 4:32	2760	630.70
219	makefile	3/13/2002 1:08	514	109.93
186		10/18/1990 18:13	1	0.18
184	POWERSOF.T	1/5/1996 10:34	91	16.35
				<b>24558.09</b>

## Enterprise Storage Growth

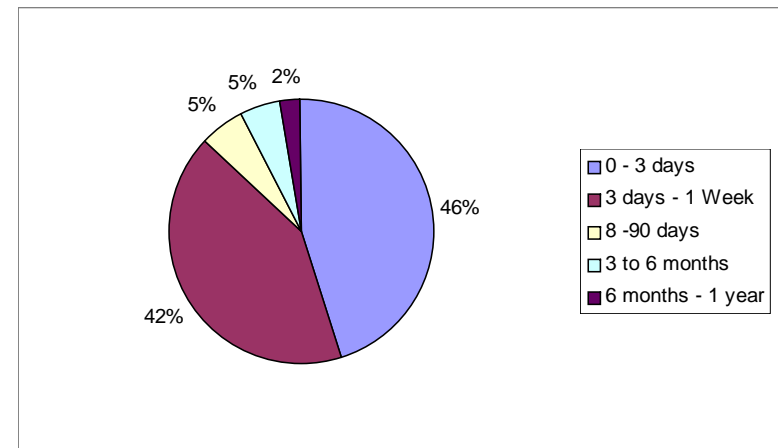


File Count	Storage (GB)	Total Storage ((Create Year	Growth Rate
10,028	0.43	1.36	2000 46%
18,230	2.10	3.45	2001 154%
307,466	89.05	92.50	2002 2578%
181,939	47.69	140.19	2003 52%
480,638	136.80	277.00	2004 98%
929,497	460.12	737.11	2005 166%

## Breakdown by Number of Files (Top 10)



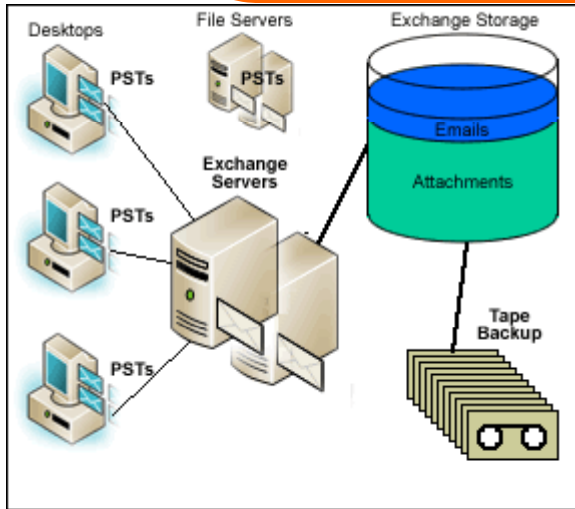
## File Age by Last Access Date



# ESA – Benefits of Email Archive

1. Qualify
2. Prepare
3. Assess
4. Report

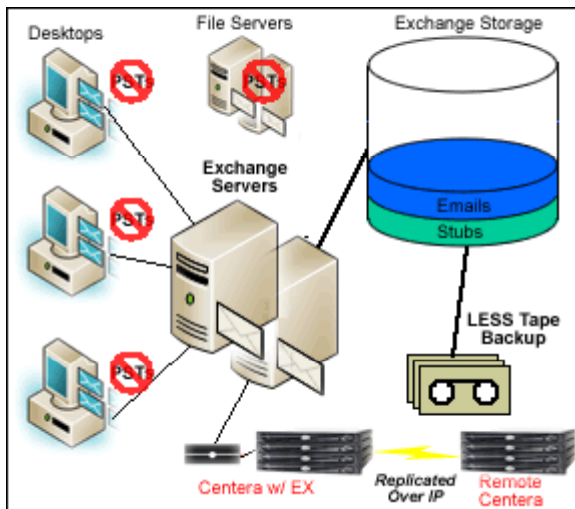
**BEFORE**



- X GB of PSTs just on file servers
- Increasing backup time, cost, and failure rates
- X GB of email storage growing at XX% per yr
- X GB of attachments on email storage
- Increasing restore times and risk of failure
- High cost of maintenance
- Unpredictable environment
- Failure to adhere to Microsoft best practices

## WITH A 60 DAY ARCHIVE POLICY, THE FOLLOWING SAVINGS/IMPROVEMENTS ARE POSSIBLE

**AFTER**



- Ingestion of ALL PSTs into Archive platform
- Backup times reduced by as much as XX%
- Total storage reduced by as much as XX%
- End user self restore and governance inquiry
- Decrease restore times and reduced risk of failure
- Single instance ALL duplicates and compression
- Decrease backup costs (tape, storage, handling)
- Maintain a predictable Exchange environment


## FSA & ESA Archiving Solutions Deliver Tangible Results

### Significant End-User Benefits

- No education or training required
- Infinite Inbox Home Directory and ease-of-quota restrictions
- Integrated search and index

### Benefits to Storage, IT, and Business Management

- Remove Fixed Content from high performance SAN and NAS environment
- Production-storage backup improvements (performance, lower-cost, more reliable)
- Regulated content locked down, retention policies enforced, disposition automated
- Maximum storage efficiency through de-duplication and reclamation of Tier 1 storage
- Improved disaster-recovery capabilities



**Simplified IT management**  
**Faster application performance**  
**Lower total cost of ownership**  
**Shorter backups = better backups**  
**Improved server utilization**

Questions?

## VISUAL SRM

### Evaluation Overview and Requirements

This document lists information and resources necessary to begin a VISUAL SRM evaluation in a non-intrusive and timely manner. The information gathered can assist in implementing an archive strategy that can help to contain growing storage and back-up costs, while improving recovery times. This evaluation is structured to run for one day, depending on data volumes, staff availability, and system resource utilization.

#### RESOURCE REQUIREMENTS

Evaluations are structured to require minimal time and impose limited impact on your day-to-day activities. Technical staff should plan to be available for a minimum of two hours during the evaluation activities. Required components for the evaluation:

Identify which file servers and file systems will be scanned

- Data volume should be approximately 1 -2 TB of total storage to be scanned and analyzed
- For best results do not include databases due to their structured data format
- Choose “representative data” (a typical subset of selected server file systems)
- Include any servers that require large back-up/restore windows due to volume or throughput
- Compile a list of mount points that will be scanned, including specifics on data volume

Hardware:

- A dedicated server for VSRM installation
    - Windows 2003 (32-bit, SP1)
    - IIS 6.0
    - 20-30 GB of free disk space
    - Network access to target servers
    - Supported database (SQL, Oracle or MSDE\*)
- \*if MSDE is used, Eastern will install as part of Visual SRM setup

#### TEAM SELECTION

Evaluation team members should be identified from each participating organization / site:

- At least one team member must have authority to carry out installation of VISUAL SRM software on the designated server (ID and password with Administrator access).
- At least one designated team member must have the approval/authority to map/mount identified target file systems to the scanning server
- At least one team member must have Database access, including authority to create the required tables
- Staff members with knowledge of hardware and software configurations for servers/storage identified for scanning are required to provide specifics on the environment and usage.

## **CONTACT LISTS**

Once team members have been selected, a contact list should be created for the group. This list must contain contact information for all personnel associated with the evaluation in order to ensure a successful engagement.

## **SYSTEM INFORMATION**

The following information is required prior to beginning the evaluation. A separate form will be provided for your use.

### **Target Data/Servers**

Identify between 1 -2 TB of total storage to be scanned and reported on. For each server, the following information must be provided:

- File Server Name
- File system (mount point)
- CIFS or NFS?
- File system size
- Name/contact info for Administrator (should be available during the data collection and installation activities)
- Any other relevant information about the server and/or data as required

### **File Server Environment**

File Server manufacturer and model information (as applicable). For example:

- EMC Centera
- NetApp
- HP
- General Purpose Servers

The total GB/TB of Network Attached Storage in use

### **Collection of data**

Will Eastern be able to install agents on the servers to be scanned? Alternately, a manual process can be used.

### **Database for data collection**

MSDE can be used for most evaluations. In some cases, SQL is required due to large data volume – this can be determined during preliminary discussions.

If SQL is required the following information on your SQL environment must be provided:

- Name/contact info for SQL database administrator (should be available during the data collection and installation activities)
- Database Server name & VSRM DB instance
- Database admin ID & PW used

## **EXECUTING THE EVALUATION**

The evaluation process consists of software installation/configuration, job execution, and collection of resulting data files. The software and all instructions required to perform the evaluation will be provided by Eastern Computer Exchange. Full support for evaluation-related activities and products will be available on-site, via telephone and e-mail as necessary.

## **EVALUATION COMPLETION**

Eastern Computer Exchange will coordinate the final processing of the files and arrange for a comprehensive follow-up with the Evaluation Team.

A global provider of Enterprise Storage, Tape and Virtualization solutions for Mainframe and Open Systems environments, Eastern Computer Exchange is an EMC Velocity<sup>2</sup> Signature Partner. Contact us for more information on the value that Eastern solutions can deliver to your business.  
Phone: 203-877-4334 ☎ Email: [Eastern@ECEI.com](mailto:Eastern@ECEI.com) ☎ Visit us on the web at [www.ecei.com](http://www.ecei.com)

# VISUAL SRM

## Evaluation Survey Form

This check list must be fully completed and returned at least 2 days prior to the site visit.

Customer Company Name	
Street Address (where data sampling will occur)	
City, State	

Are there any security requirements for Eastern to come on-site? (badges, escorts, safety training, etc)		YES		NO
Details:				

Primary customer contact name	
Email	
Phone number	

Name of contact with full admin access to the Data Collection Test Server that VSRM will be installed on	
Data Collection Test Server name	
Server primary (active) MAC address	

### SYSTEM INFORMATION

#### Confirmation of Data Collection Test Server features

(needed for one day)

Windows 2003		YES		NO
IIS installed and running		YES		NO
Microsoft Data Access Components (MDAC) 2.8 is installed		YES		NO
1GHz CPU, or better		YES		NO
1Gigbyte of RAM, or better		YES		NO
20-30 GB of free disk space		YES		NO
Attached to the production network		YES		NO
MSDE must <u>not</u> be installed. Is it installed?		installed		Not installed
This server must be dedicated. Not shared.		dedicated		Not dedicated
Eastern will install MSDE**		OK to install		Not OK

\*\* Eastern will install MSDE so that there are no conflicts.

Alternately, MSDE is not required if SQL is installed and the DB Admin is present to install the required tables

**Fill this chart in only if SQL, not MSDE, will be used**

Name of contact with full admin access to the SQL database server			
Database Server name & VSRM DB instance name <i>(SQL DB Server name\DB instance)</i>			
Admin User ID (for table creation)	known		unknown
Admin Password	known		unknown
Will the admin be available on data collection day?	yes		no

- 1. Identify between 1 -2 TB of total storage to be scanned and reported on**
- 2. Choose “representative data”** (a typical subset of the whole file system environment)
- 3. Focus on fixed content** – i.e. User Data, try to avoid databases
- 4. You may chose to select server’s that are known to be are causing a back-up/recovery pain point**

File server name	File system (mount point)	CIFS? Unix	NFS?	File system size	Administrator who has rights to this server and will be available during the data collection	Comments regarding the data OPTIONAL - only if needed
TOTAL						

**File Server Environment**

File Server type		Model	
EMC Centera?	YES	NO	
NetApp?	YES	NO	
HP?	YES	NO	
General Purpose Server	YRS	NO	

TOTAL Gigabytes/terabytes of NAS in the customer's environment	
--	--

Select one	How do you want the data collected?
	Option (1) Eastern will manually type in all file directories to be scanned. No agents will be installed on servers to be scanned
	Option (2) Eastern can push agents from VSRM to the servers to be scanned ***

*** If Option 2 is selected, do you agree to allow agents to be pushed to the servers to be scanned (listed above)?	YES	NO
Is a Change Control required?	YES	NO
Has the Change Control been approved for the data collection date?	YES	NO

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