

Backup Overview

Keeping your Data Safe - Gary Needham - NETA 2007


The Goal	
Off-site backup/storage for Disaster Recovery	The use of backup technologies can come with many goals. You need to determine the level of risk and importance for each one of these.
On-site backup/storage for single-unit failure/recovery	
On-site backup for frequent file recovery	
Automate! Automate! Automate!	Without automation, your backup is only as reliable as your presence and your memory.

Technology Overview	Examples	Issues
Disk to tape	Local disk to tape Network disk to tape	Establish Tape rotation Location of off-site storage Tape size (autoloaders) Network copies take more time
Disk to disk	Laptop to server Server to connected drive Server to external share	Off-line copy Off-site copy Space for rotation Network copies take more time
Disk to disk to tape	Frequently server to external share, then tape option above	Generally expensive May better manage network copies than other solutions

What do you need to back up?	How long do you need to keep it?
Data files?	State of NE Document Retention policy
E-mail?	http://www.ago.state.ne.us/content/records_statutes.html
Machine/server partitions/images?	Federal ruling regarding e-mail archives: http://www.eschoolnews.com/news/showStory.cfm?ArticleID=6734&page=1

Backup Solutions For Windows


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Most Common	
Method: Server to internal tape	
Media: LTO	
Software: Hardware vendor recommendation (frequently Backup Exec)	

Abridged list of solutions	Media Options
Veritas Backup Exec	LTO (up to 800 GB compressed in LTO3)
Yosemite	Autoloader (combined multiple tapes)
Omega REV software	Omega REV drives (35/70 GB)
Microsoft Data Protection Manager	Disk (as large as you can afford)
Home-grown scripting solution	

Backup Solutions for Mac OS X

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Most Common	
Method: Disk-to-disk	
Media: External, connected firewire disk	
Software: Home-grown scripts	

Abridged list of solutions	Media Options
Home-grown scripts using ditto, rsync	LTO (up to 800 GB compressed in LTO3)
Super Duper (single machine)	Autoloader (combined multiple tapes)
BRU	Omega REV drives (35/70 GB)
ComVault	Disk (as large as you can afford)