

70-290 Chapter 4
Concept Map

Backup Hardware

- Capacity/Speed/Cost tradeoffs
- Optical Media (CD/DVD)
- Magnetic Cartridge (Zip/Jaz)
- Magnetic Tape
 - Quarter Inch Cartridge (QIC) - 50MB
 - DAT - 20GB
 - 8mm - 100GB
 - DLT - 160GB
 - LTO - 200GB
- IDE or SCSI interface (SCSI preferred for performance)

Media Rotation

- Grandfather-Father-Son
 - Son=Daily tapes - Used Mon - Thur (4 tape sets; 1 tape set = enough tapes to back up system)
 - Father=Weekly tapes - Used Fridays (5 tape sets)
 - Grandfather=Monthly tapes - Used on last business day of month (3 tape sets; more if data should be retained > than 1 business quarter)
 - 12 media sets needed
- Tower of Hanoi
 - Min 5 media sets needed for daily backups
 - Media set "A" used alternate days
 - Media set "B" used days: 2, 6, 10, 14
 - Media set "C" used days: 4, 12
 - Media set "D" used day: 8
 - Media set "E" used day: 16

Active Directory Backup

- Use 2003 Backup to back up System State target
- Nonauthoritative restore
 - Used to restore domain controller but receive updates from other DC's
 - 1: Press F8 when system boots
 - 2: Choose Active Directory Services Restore Mode
 - 3: Restore System State with 2003 Backup
- Authoritative restore
 - Used to restore AD and have restored object(s) supersede newer objects
 - 1: Press F8 when system boots
 - 2: Choose Active Directory Services Restore Mode
 - 3: Restore System State with 2003 Backup
 - 4: Use ntdsutil.exe to mark which AD objects are authoritative

Backup Types

- Normal
 - Backs up selected files, resets archive bit
 - Most demanding on tape space (often backs up files which have not changed)
- Copy
 - Backups selected files, does not reset archive bit
- Differential
 - Backs up selected files if their archive bit is set, does not reset archive bit
 - Normal+Differential=Quickest to Restore
 - Restore involves Normal+Last Diff tape
- Incremental
 - Backs up selected files with archive bit set, resets archive bit
 - Normal+Incremental=Slowest to Restore
 - Restore involves Normal+All Inc tapes
- Daily
 - Backs up selected files that were created/modified today, does not reset archive bit

Backup Software

Good backup software maintains a database of all tape catalogs for quick access to needed files when restoring

Volume Shadow Copy

- Creates a library of file versions to enable user-initiated recovery of old file versions
- Enabled through Properties of the volume
- Admin specifies disk space/location used for shadow copies and schedule for shadow copy creation
- Client piece built in to 2003, must be installed on XP