Entry-level iSCSI SAN Project

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Overview

- Timeline
- Status
- Recommendations

Timeline

- 2006
  - 2 x 300GB file servers
  - 1 x 210GB mail server
  - 25+ application servers
  - 750GB disk-to-disk backup
  - 4 x 200 GB (compressed) tapes
  - Backup window creeps into workday
  - SAN solution sought

Timeline (cont.)

- 2007
  - Researched current industry offerings
  - iSCSI solution over fiber channel
  - Selected LeftHand Networks NSM-160
  - Kudos to AIKCU, Lefthand, IntraSource, CXTec for all their project support!
  - Temporary GB + jumbo frame switch
  - RAID rebuild, BBU cache error, etc.
  - New 2 TB system delivered, but spring break maintenance window missed

Status

- Core upgraded to jumbo frame (Jun)
- Migrate from temp switch to core
- Move 1 of 8 message stores to SAN
- Move select dept/user shares to SAN
- Integrate with Backup Exec
- Test... Monitor... Tweak as necessary
- Move remaining mail and shares

Recommendations

- Talk to customers with similar architectures that bought system under consideration
  - Overall system experience/satisfaction
  - Emphasis on backup environment
  - Any known “gotchas,” idiosyncrasies?
  - Lessons learned, recommendations?
- Add iSCSI SAN to stable networking environment (GB, jumbo frame, etc.)

Recommendations (cont.)

- Push tape to limit… don't rush a SAN
- Importance of pre- and post-installation checklists/worksheets
- Get 30-day try-and-buy if possible
- Implement more storage than you think you need! Snapshot flexibility…
- Read everything pertinent on vendor's website, as early as possible—get any product specific training possible

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Appendix 1

- Exchange 2003 Enterprise, 1 server
- Windows Server 2003 R2 on AD and domain controllers, some others
- Windows 2000 on file servers
- Cisco 6509, upgraded supe 1A to 2
- Cisco 3560 (temporary switch)
- Symantec Backup Exec 10d on Windows 2003 Storage Server
- Dell PowerVault 745N 750GB NAS device
- PowerVault PV-132 (LTO-2)

Appendix 2

- Most wanted features in next NSM160 software release
  - Dynamically sized snapshot volumes that can auto-shrink as well as auto-grow
  - Network-based management engine that will provide automatic failover (2-device system requires human intervention to come online after failure of either device)
  - Support for 2007 changes to DST (Nov...)
  - More logical graphs in reporting interface
  - Documentation of server OS and NIC tweaks