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LifeLink Gets iSCSI Recovery

How can a nonprofit healthcare organization afford mission-critical disaster recovery? For LifeLink Foundation, the answer was iSCSI.

By Mary Jander, Site Editor, Byte and Switch

The 500-employee foundation, based in Tampa Bay, Fla., specializes in transplant medicine and organ donation. Its activities include working with organ donors and their families in 22 counties in the U.S., as well as the entire state of Georgia, Puerto Rico, and the U.S. Virgin Islands. A key element is maintaining data on donated organs -- which requires sizeable and secure storage facilities.

Until last year, those facilities comprised over 40 Windows-based production servers from Hewlett-Packard, backed up with direct-attached RAID gear. But for Vice President of Information Systems John Rhon and his team, the handwriting was on the wall.

"Our key initiative was disaster recovery and getting off direct-attached storage," Rhon says.

They'd already put the first piece in place by adopting server virtualization software from VMware in 2004, a move that allowed the group to start replicating their data and streamlining server resources. But when it came to the storage piece, a review of solutions from the group's existing vendors, HP and EMC, turned up expensive proposals.

Both vendors suggested a server upgrade accompanied by adoption of a Fibre Channel SAN. "EMC and HP didn't have any free stuff. They had lots of add-ons and difficulties in setup," says Rhon. Furthermore, the proposed systems would require the dedication of precious staff resources to SAN maintenance and education.

Initial inquiries about iSCSI were fruitless. HP made no iSCSI offer. Even though EMC had an iSCSI product, the vendor was giving out a double message. "We looked at EMC's iSCSI but were turned off by the way EMC was mishandling its own product. They were badmouthing iSCSI, saying it was just a dumb box and that we should go with Fibre Channel," Rhon says.

With assistance from John Lavelle, LifeLink's senior LAN/WAN administrator, Rhon and team began a largely informal evaluation of alternatives. The team looked at a Fibre Channel system from Xiotech, and two iSCSI boxes from EqualLogic and LeftHand Networks. They kept coming back to iSCSI, which required narrowing the focus on one of their two candidates. After reviewing all they find on both companies, they picked EqualLogic.

"EqualLogic seemed to be a bit bigger player, with a larger customer base," Lavelle says.

With help from a local integrator, the foundation set up its first EqualLogic PS300E box in its Tampa data center in February 2005. They used the native Microsoft iSCSI initiator in their server operating software to interact with the direct-attached storage and move files, Exchange data, and SQL databases onto the storage platform.

"We had it set up and configured in an hour," Lavelle asserts. "We spent more time talking about it than setting it up." Three months later, he established a second PS300E in a nearby branch office, completing the group's initial goal of having a fully replicated data store distinct from the main site. A third PS300E is on order for installation in Atlanta during the first quarter of next year.

So far, the group is happy with the results. The combination of server virtualization via VMware and iSCSI storage via EqualLogic has cost half of what the original server-and-Fibre Channel proposed upgrade. The team has reallocated 12 "legacy" servers that formerly handled direct-attached storage. Management via EqualLogic's Web-based interface is effective, even if it's not integrated with other management software.

There are things on LifeLink's wish list. Their VMware installation doesn't yet support iSCSI natively, so they have to use the Windows initiator to interact with the iSCSI drives. VMware has told them they'll have direct iSCSI compatibility in January.