



# Pieper and Associates

## SAN Kit Simplifies Storage Consolidation

### Challenge

Install a cost-effective SAN for a growing, mid-sized advertising agency without requiring extensive technical skills.

### Solution

The Hitachi Data Systems® Plug-and-Play SAN Kit includes everything needed for a complete SAN: one 10-port, 2 Gbps QLogic SANbox® Express 1400 switch, QLogic QLA210 SANblade® host bus adapters (HBAs), connectors, cables, drivers, software, and user's guide - as well as a 2 TB Hitachi Data Systems TagmaStore® Adaptable Modular Storage system that can scale to up to 41TB.

### Benefits

The SAN kit enabled the owner of this mid-sized company to consolidate storage from multiple servers onto a SAN without hiring technical support assistance; information became more manageable and scaling became easier and less complex.



Like many small and medium-sized businesses, Pieper and Associates owes its success to its owner's involvement in every aspect of the company—even IT. Evidence of this hands-on approach is how Jeff Pieper transformed a 30-year old print brokerage business into a full-service advertising and design house. Today, the 21-person company boasts a client roster that is the envy of larger agencies.

Pieper and Associates creates product displays, product packaging, and print advertisements on very tight schedules. This range of services and a reputation for quality work has made the company successful, but has also increased the amount of time its namesake owner needs to spend on managing the details of the business. "I get involved in just about everything at the agency, from IT to billing," said Pieper. "And as we have grown, I work longer hours than ever before."

Until recently, much of this extra work was spent managing storage in a server environment composed of direct-attached storage. The agency adds about 35 GB of new data per week, which consists of files created by the staff of copywriters, editors, graphic artists, and project managers. Each revision of client files is saved so agency staff can keep track of changes.

Keeping all versions of creative work also helps Pieper bill for work the agency performs. "By never throwing anything away, I can back up my bills with details about what we have done for our clients," he said.

### Direct-Attached Storage Causes Administrative Headaches

Pieper had several Microsoft Windows servers. Two file servers contained current projects and another held archived projects from the past. Other servers provided e-mail and database functions, as well as short-term hosting for newly designed client Web sites. But keeping information accessible in this environment became increasingly difficult for Pieper. "The two file servers each had 300 GB of storage, but we were constantly reaching our

*"The HDS Plug-and-Play SAN Kit saves me several hours a week in managing information, which allows me to run my small business instead of spending time working on IT problems."*

— Jeff Pieper, Owner, Pieper and Associates

## Pieper and Associates

limit,” he explained. “This meant that I had to compress older files and move them to another server where we kept archives. It took a lot of my time.”

Filling the file servers created other problems. “Running out of space on the file server was frustrating. We had room on other servers, but we had no way to be automatically notified that the file server was near maximum capacity,” Pieper explained. “Sometimes the file servers would crash when they reached capacity. That disrupted our whole company and I would have to jump in and compress files so the excess data could be moved to the archive server.”

### The QLogic-Managed SAN Makes Information Management Affordable

Pieper began to believe that he needed to hire an IT person to deal with the storage problems. “I was unsure what I could do by myself,” he recalled. “Then I discovered QLogic and the next generation of SAN kits that I could install myself without technical assistance.”

The QLogic engineers suggested that Pieper consider the Hitachi Data Systems (HDS) Plug-and-Play SAN Kit, which combines a QLogic switching system with a storage system from HDS—all in a package designed specifically for small and mid-sized businesses. Pieper was initially skeptical. “I thought a SAN was complicated, designed for much larger businesses with dedicated IT people. But the more I talked to the QLogic engineers, the more intrigued I became by the idea of having one central pool of storage that all servers could access.”

The HDS Plug-and-Play SAN Kit includes a QLogic SANbox 1400 series switch with 10 2 Gbps ports, QLogic HBAs, and all the required cabling. Storage is provided by the HDS AMS200 TagmaStore Adaptable Modular Storage system. With capacity for up to 41 TB, this expandable disk array allows the agency to consolidate all its storage onto one central, highly available, and easy-to-manage system.

Pieper purchased the SAN kit and installed it in less than a day. “It really is plug-and-play. The QLogic CD included with the kit automatically detects the kinds of servers and storage devices we use and configures the system. Then it provides detailed instructions on how to connect each cable in the SAN. That’s it!”

### The QLogic-Managed SAN Makes the Owner and Staff More Productive

After several weeks of use, Pieper was impressed with the cost-effectiveness of using a SAN for storage. “Now that all servers share the same storage, I have no further need for the archive server and one of the two file servers because we retired two servers. Now our employees look in one place for all their projects.” This, said Pieper, improves employee productivity, which also speeds project turnaround time. “Turnaround time is one of the things my customers value most,” he said.

In addition to reducing the complexity of the storage environment, employees have more reliable access to data, which further improves productivity. With the QLogic switch directing the flow of data at the agency, the TagmaStore system ensures continuous access to information through its RAID-6 architecture. All components are certified as being Microsoft Simple SAN-compliant, which reduces management complexity and helps ensure compatibility with all agency servers.

Plus the new SAN is far more scalable than the direct-attached storage environment it replaced. With 15 Fibre Channel disk drives holding 350 GB apiece, the agency has more than 4 TB of storage—twice the amount it currently needs. “With the HDS system, we can scale to almost ten times the storage we currently have,” Pieper said. “Had I known about the HDS SAN kit earlier, I could have saved money on buying unnecessary hardware.”

And with 10 ports, the QLogic switch provides more than enough switching capacity for the dual-attached HDS storage system and five servers. “If the need arises, we can easily add two more devices to the QLogic switch,” Pieper said. “Should we ever need more than 10 ports, I can simply interconnect two SANbox switches with a 10 Gbps interswitch link for a total of 18 ports.”

“The SAN saves me at least an hour every day because I no longer need to regularly manage file storage,” Pieper said. “For a small business, this is an extraordinary advantage.”



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