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Executive Vice President
PRC Medical*



PRC Medical

INDUSTRY Healthcare

SOLUTIONS

Business Continuity and Replication

Hardware — Hitachi Adaptable Modular Storage 2100 (2)

Software — Hitachi In-System Replication software bundle, Hitachi TrueCopy® Extended Distance remote replication

Services — Provided by Hitachi TrueNorth™ Partner Arkay Data Storage Solutions, Inc.

PRC Medical Finds Cost-efficient Fibre Channel over IP Remote Replication Remedy with Hitachi SAN

PRC Medical provides business technology services needed by busy physicians, such as practice office software, electronic medical records and document management. To support the company's rampant data growth and remote replication needs, Hitachi TrueNorth™ Partner Arkay Data Storage Solutions, Inc., deployed Hitachi SANs with QLogic switches and routers for extensive scalability, capacity and availability.

PRC Medical understands that physicians want to focus on patient care, not billing codes or insurance paperwork. As a one-stop shop for practice management software and hosted services, PRC eases the administrative burden for the medical practice while helping doctors get paid for what they do. Employing progressive technology and quality management processes, plus a team of dedicated experts, PRC provides a flexible IT platform for handling medical records, coding, billing, claims processing, compliance and other critical requisites alongside the changing backdrop of healthcare requirements.

"We are sensitive to the physicians' office needs for easy-to-learn software and dependable applications. The majority of the technology, databases and architecture here at PRC was designed by our staff to ensure that client requests are met, as well as government and insurance compliance directives. As clients ask us to do more and as we add new accounts, the emphasis will be on maintaining reliability and the speed of our IT environment to support the growth of data," explains Frank Hill, executive vice president at PRC Medical.

The Move to Alleviate Data Storage Growing Pains

The existing data storage environment at PRC was based on a small iSCSI SAN inherited during a merger and direct attached storage devices (DASD) connected to servers in a one-to-one ratio. While a DASD can enable quick access to the data stored on its associated server, the servers at PRC were also running production applications, thereby straining bandwidth and slowing retrievals. The distributed IT environment was not conducive to rapidly scaling, provisioning and managing storage capacity, which would be necessary for meeting customer and data demands.

"We're in growth mode right now and it's crucial to be able to add capacity or servers quickly and efficiently without affecting business operations. Moving forward, I want to ensure that we can accommodate whatever the business dictates as cost-effectively and reliably as possible. On the back end, it's really important that we replicate the production environment to a second location and, from an operations perspective, have the ability to query and analyze without impact to the production servers," Hill says.



"We needed Fibre Channel over IP for remote replication without overhead on the database systems. Hitachi Adaptable Modular Storage 2100 uses replication technology at the SAN level, which alleviates any impact to production environments."

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Executive Vice President
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To maintain the high level of service that customers expect and facilitate cost-effective business growth, Hill wanted to transform the existing IT infrastructure. Arkay Data Storage Solutions, Inc., quickly topped the list of potential vendors who could provide a strategic approach for implementing highly flexible and available data storage technology at PRC.

“Arkay brought to the table a complete solution based on Hitachi SANs, and the support and expertise necessary to meet our data growth and replication goals. Our main objective was to make information available everywhere across any device to provide our client physicians and practices with the most consistent, user-friendly applications. To do that, we need a significant amount of reliable, intelligent storage that can be easily replicated and managed while remaining cost-effective for us. Deploying Hitachi storage will afford us impressive scalability, easy replication and high availability,” he continues.

PRC Partners for Outstanding Scalability and Performance

To inaugurate its remote replication strategy and to extend scalability with performance, PRC Medical deployed dual Hitachi SANs, one for each of its data centers. The SANs are based on Hitachi Adaptable Modular Storage (AMS) 2100, which uses SAS architecture, in-system volume replication, dual active controllers with automatic failover and 32 concurrent disk I/O paths for stellar performance, reliability and scalability. Protected by RAID-6 configurations, 99.999 percent data availability and no single point of failure, the AMS 2100 also delivers outstanding fault isolation for disk failures. Each SAN is presently managing 5TB of business-critical storage.

Hitachi TrueCopy® Extended Distance remote replication software facilitates the continuous and nondisruptive data replication between PRC Medical’s two locations, and a QLogic iSR6142 Intelligent Storage Router provides the Fibre Channel IP link.

The QLogic iSR6142 enables fast and secure data replication between the production site and the secondary site, and supports all major protocols for maximum business agility and savings.

“We needed Fibre Channel over IP for remote replication without overhead on the database systems. Hitachi AMS 2100 uses replication technology at the SAN level, which alleviates any impact to production environments. Now we can replicate, do backup to tape and have the ability to analyze information transparently and cost-efficiently,” Hill says.

To continue with the high availability configuration for PRC Medical, Arkay cross-linked two QLogic SANbox 5602 Fibre Channel 4Gb Stackable Switches for each SAN. QLogic’s stackable switch technology scales more efficiently over time, delivering pay-as-you-grow simplicity and transparency during expansion. Completing the IT infrastructure redesign, PRC Medical configured its formerly distributed servers into clusters.

“Each AMS 2100 has over 500 virtual server ports. With this new setup of virtualized server farms and high availability SANs, we are able to quickly spin up virtual computers on the fly. Plus, this solution allows us to think in a more plug-and-play or componentized way if we need to, rather than the linked entity of server and data disk, as with the old DASD setup. Now we have so much built-in flexibility to do whatever we need to do,” he explains.

End-to-end Integrated Storage Bolsters Efficiency

Since implementing its Hitachi solution, PRC Medical has been able to speed its time to ramp up new customer requests while alleviating performance and scalability issues of its previous infrastructure. “This solution has taken us from an old computing setup of server and drives, to a much more modern, robust one. It’s like having a

About QLogic

QLogic is a global leader and technology innovator in high performance networking, delivering adapters, switches and ASICs that power today’s data, storage and server networks for leading Global 2000 corporations. Hitachi and QLogic partner to deliver a diverse portfolio of networking products that include 10GbE intelligent Ethernet adapters and Fibre Channel over Ethernet (FCoE) converged network adapters, Fibre Channel adapters and switches and iSCSI adapters and routers.

rack of spare servers in the waiting, without the expense of actually purchasing or managing them. Now we have a virtualized environment and the ability to spin up a server three times faster than with our old arrangement. We have exceptional uptime and the ability to be confident that we can recover quickly and effectively, regardless of the situation,” Hill states.

Next on the horizon for PRC Medical’s IT department is a Microsoft® SQL Server® integration and further use of the Hitachi software. “Having an end-to-end integrated storage infrastructure significantly improves our ability to get customers up and running faster and to help them recover very fast from any fault. I can’t say enough about the cohesive partnership we have with Arkay, Hitachi Data Systems and QLogic: what a great mechanism for support, hardware, whatever we need. I know we obtained a very good price. It was a pleasant surprise to know that we also can count on such great service. I can finally sleep at night, knowing that,” he concludes.

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