Providing Critical Medical Data – On Time and Within Budget

iTera's Echo² High Availability Assures Ongoing Availability of On-Line Medical Information at Shepherd Critical Care Center

ecause accurate and timely information play a significant role in quality healthcare, technology is critical to Shepherd Center, the largest catastrophic care hospital in the U.S., based in Atlanta, GA. Data, in the form of medical histories, test results, vital signs, diagnoses, prescriptions and treatment records must be available and accessible to healthcare providers whenever needed. Because of the need to protect their critical systems and minimize downtime, Shepherd Center chose several availability solutions from iTera.

The IBM iSeries (AS/400), model 720 is at the heart of the health care IT operations at Shepherd Center. In fact, Shepherd Center currently has



three of these systems, with two of them utilizing iTera's Echo² High Availability software for data mirroring in a high availability configuration.

Recognizing a Need for High Availability

The hospital's Information Systems department recognized the need for a high availability solution several years ago, when Siemens' Med Series 4 Advanced Clinical Applications were implemented on the hospital's AS/400. According to Jeff Couch, IS Project Manager at Shepherd Center, "Med Series 4 brought approximately 70 percent of our medical records on-line, with data stored in a clinical repository on the AS/400. We were storing so many of our medical records on the system, in fact, that we recognized the need for continual on-line availability and redundancy. While the AS/400 has a reputation of never crashing, if the unthinkable ever did happen, our clinical personnel would not be able to review vital signs or make health assessments on patients."

Making the Switch to iTera

At Shepherd Center, iTera's Echo²high availability solution replaced another high availability product offering, which was done for a variety of reasons:

iTera's remote journaling capability

- Ease of operation (only 2-3 hours per week were needed to support the product versus approximately 15-20 hours needed with the previously used solution)
- Improved support
- Lower cost

Jeff Couch observes, "Our switch to the iTera Echo² high availability solution was made for a combination of reasons, not the least of which was financial. The iTera offering is considerably more cost effective than the product that had previously been supplied. With iTera, we have the Echo² high availability solution, as well as their Purge and Archive, Reorganize While Active, and Upgrade/Convert While Active solutions for less than what we paid just for the mirror image application from the other company."

Echo² provides high-speed data and object replication to one or more backup servers. It represents the new generation of continuous availability solutions taking advantage of the remote journaling capability of the iSeries operating system. The use of remote journaling as the data replication engine within Echo² dramatically reduces the overhead required from the production system, thus freeing up the CPU and disk I/O to be used by applications. In addition, remote journaling is extremely fast, which means that in case of failure, all transactions and object changes have likely been replicated to the backup box. High availability solutions that don't use remote journaling, run a very high risk of losing transactions in the event

of a system failure since it is not unusual for a backlog of transactions to occur on the production system that are waiting to be sent to the backup system.

Remote journaling is not the only advantage provided by Echo²; its automation and intuitive design makes daily operations simple and trouble free. The solution is automated for ease of use, and features integrated monitoring, auditing and paging capabilities; if manual intervention is needed, an operator can be paged automatically. Echo² also features built-in "intelligence" to automatically recover from program and process errors that may occur during replication. And Echo² requires attention from a systems operator for an hour or less each day which is considerably less time than what was needed with Shepherd Center's previous HA solution.

Jeff Couch also adds that iTera's reputation was a factor in Shepherd Center's selection. "We heard of iTera because of its Upgrade/Convert while Active solution. We contracted with them for a one-time engagement for Upgrade While Active to reduce the amount of downtime related to the MedSeries4 release. We were impressed with iTera's knowledge of MedSeries4, and its quirks and upgrades. That kind of application and programming knowledge is also proving valuable in the high availability program."

Summarizing Shepherd Center's experience with Echo², Couch is positive and is looking forward to a long relationship. Because iTera's technology is based on IBM's latest features and functions, the Shepherd Center

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IS staff has found that Echo² is more stable, easier to use and more user-friendly than the product they were previously using. As a result, the staff has more time to complete other important technology-related tasks. "In the time we have been live with Echo² we have found it very easy to use. Remote journaling has increased our comfort factor significantly, and the price allows us to benefit from additional iTera solutions while remaining within budget. The iTera solution is most definitely a good product for us."

About iTera

Headquartered in Salt Lake City, Utah, iTera is a leading developer and integrator of iSeries high availability and continuous availability solutions including Echo² High AvailabilityTM, Reorganize While ActiveTM,

Purge & Archive™, GuardianSave™, Upgrade While Active™ and Convert While Active™.

About Shepherd Center

Shepherd Center of Atlanta, Georgia, was founded in 1975 and has since become the country's largest catastrophic care center. Shepherd is a Model Center in both brain and spinal cord injury, and has been designated by the National Multiple Sclerosis Center as an official Multiple Sclerosis Center. The non-profit institution was named 1999 Hospital of the Year by the Georgia Alliance of Community Hospitals and currently admits more than 850 patients annually for catastrophic illness or injury.

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