



Easing the Pain of an Aging IT Infrastructure – Hospice of Michigan (HOM)

CHALLENGE: HOM needed a robust IT infrastructure with high failover and reliable Tablet PCs that would let nurses collect data offline and later synchronize with the host server.

CLIENT PROFILE

Hospice of Michigan (HOM), the largest hospice program in the state and the second-largest nonprofit hospice in the country, provides palliative care – comfort measures and pain control – for people with a terminal illness. The approach to palliative care is a team effort, directed by the patient, family members, and physicians, and supported by nurses, social workers, home health aides, spiritual advisors and trained volunteers. The goal is to help each person live as fully as possible and to help the family and loved ones participate in the person's care. Hospice of Michigan serves nearly 1,000 patients every day in 56 counties throughout the state.

SOLUTION:

Fujitsu ETERNUS®4000
SAN storage system, Fujitsu
PRIMERGY® BX600 blade
servers, and Fujitsu LifeBook
T4215 Tablet PCs.

ROBUST TECHNOLOGY REQUIRED

HOM has five main sites, a headquarters, and nine hub sites for weekly patient discussion meetings. Unfortunately, the organization's existing IT infrastructure was dated, and its siloed storage systems were reaching capacity. Performance, speed and reliability were also issues.

"We had lots of hardware that needed to work together in a complex network infrastructure – otherwise the quality of care would be at risk, as would patient confidentiality," said John Pryor, corporate director of information systems at Hospice of Michigan. "But we faced some serious challenges with the old environment. Individual servers had been bought to support specific applications, resulting in a lot of random pieces, and storage was added by attaching SCSI disk arrays to the servers, creating information silos that were difficult to access. We also relied on very expensive dedicated T1 lines, but our servers lacked the performance and memory to take advantage of the bandwidth."

In 2007, just as the technology need was growing critical, HOM learned that \$13 million in Fujitsu products and services were being made available as part of a \$30 million independently managed technology grant to the U.S. hospice industry.

"The grant was a godsend for us, allowing us to create the technology platform we needed," said Pryor. "We were still using the Fujitsu LifeBook T3010 Tablet PCs we'd purchased in 2003, and we'd loved the experience of working with Fujitsu. Everyone was helpful and concerned about meeting our needs. We felt it was a true win-win partnership, not just folks trying to hawk tin. We were very excited to standardize our new infrastructure on Fujitsu."

SETTING THE BAR HIGH

With the money available, and by working with the right partner, HOM set for itself four lofty goals:

- Create a flawless infrastructure – Deploy a robust IT infrastructure with high failover for its headquarters, with all the hardware comprising its data tier, application tier, and end user tier working together flawlessly
- Improve reliability – Ensure the technology system was never “down” for support teams – more than 250 nurses and 200 social workers and religious counselors
- Improve performance – Remove bottlenecks limiting team productivity by, for example, slow system performance during synchronization
- Support new technologies – Implement new technologies, such as webcams, single sign-on solutions and document management, to make the teams more efficient and productive

To accomplish these goals, HOM made two critical moves. First, it adopted multi-protocol layered switching (MPLS) for more cost-effective bandwidth. Second, HOM standardized on Fujitsu hardware to take advantage of the bandwidth and create a single tablet platform for the medical teams.

To establish its infrastructure, the organization deployed:

- A Fujitsu ETERNUS4000 Model 300 SAN Storage System with dual RAID controllers and Intel® Xeon® Processors
- 17 Fujitsu PRIMERGY BX600 Blade Servers with Intel® Xeon® Processors
- 150 Fujitsu LifeBook T4215 Tablet PCs, which came with a bi-directional LCD hinge and can be converted for tablet or notebook use
- A 10 GB Ethernet switch

Two PRIMERGY enclosures, each with six blades, and the ETERNUS SAN were located in the organization’s primary datacenter in Detroit. Another PRIMERGY enclosure with the remaining blades was installed in a mirror site in Grand Rapids for disaster recovery. All legacy services were migrated to the new servers to minimize the IT footprint and reduce costs associated with cooling. The ETERNUS SAN currently provides 4.6 TB of storage, and the organization is at 50 percent utilization.

Using the reliable Fujitsu tablets, nurses go out to visit patients, collect vital signs, and record the information directly on their tablets. At the end of the day, they connect to the host system via a virtual private network (VPN) and synchronize the data.



Fujitsu ETERNUS4000
Storage System



Fujitsu PRIMERGY BX600
Blade Server

GOALS ACHIEVED...AND THEN SOME

Thanks to Fujitsu hardware, HOM has successfully created a robust IT infrastructure with high availability – where the data, application, and end-user tiers work together flawlessly. Since implementing the new technology, HOM has experienced zero downtime, ensuring its teams can always be productive, and the high level of performance and throughput of Fujitsu servers and storage systems ensure that technology is never a bottleneck to the efficient flow of information. The new infrastructure is also capable of supporting any new initiatives, including videoconferencing via webcams, that will enable HOM to support its mission.

Additional benefits include:

- A consolidated server platform for easier management and an estimated 20 percent savings in power usage
- Sufficient, long-term storage capacity to support HOM's continued growth
- Standardization on a single vendor for more efficient and more effective service
- A robust platform that will support virtualization and other technologies that will help HOM manage future growth
- A top-notch vendor support team – the Fujitsu professional services team has quickly addressed and resolved any issues

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