

ST. BERNARD PARISH HOSPITAL

EMC solutions power new hospital in one of Hurricane Katrina's hardest-hit areas



ESSENTIALS

Industry

Healthcare

Organization Size

40-bed hospital

Business Challenges

- Support a 100 percent virtualized environment
- Provide flexibility to evolve as business needs change
- Provide hospital staff with anywhere, anytime access to patient information
- Eliminate need for tape backup solutions

Solutions

- EMC VNX unified storage
- EMC FAST Suite
- EMC Avamar
- VMware
- VMware View
- Healthland health information system

REBUILDING IN THE FACE OF KATRINA

When St. Bernard Parish Hospital was destroyed in Hurricane Katrina, the community of St. Bernard Parish, Louisiana—located only a few miles from New Orleans—lost its principle healthcare resource. Now, St. Bernard Parish Hospital (SBPH) is open and serving St. Bernard Parish in its new state-of-the-art, 40-bed facility.

BUSINESS CHALLENGES

Rebuilding gave the hospital's IT management the opportunity to transform its infrastructure to a private cloud. According to hospital CIO, Peter Dougherty, it also presented the opportunity for IT to provide IT as a Service (ITaaS).

"From the outset we wanted a storage solution that could support a 100 percent virtualized environment and that was flexible enough to grow, move, and change to meet our business opportunities and needs."

In addition, the storage system needed to support automated storage tiering in order to reduce costs and maximize storage utilization and performance. St. Bernard Parish Hospital also wanted to implement a virtual end user computing environment for its staff, so the storage system had to provide the performance necessary to support anywhere, anytime access.

Finally, the hospital wanted a disk-to-disk backup and recovery solution.

"We needed technology that was flexible enough to deal with whatever type of configuration we might encounter going forward," adds Dougherty. "I had to make sure that our capital investment would last five to eight years. I needed to make sure that what we purchased was robust, and that it had the storage space that we needed to meet our future needs."

SOLUTIONS

To move the project forward, the hospital engaged Universal Data Incorporated (UDI), a local EMC authorized partner. Together, they road-mapped a comprehensive solution that would meet the hospital's needs.

St. Bernard Parish Hospital chose EMC® VNX® unified storage, integrated with VMware®, to fully support its journey to the private cloud and ITaaS. The VNX implementation includes the EMC FAST™ Suite (which includes FAST VP and FAST Cache) and Flash drives. This FLASH 1st strategy ensures that hot or active data is automatically stored on Flash for optimal performance, while less active data is tiered to high capacity drives for the lowest overall cost per gigabyte.



CUSTOMER PROFILE

EMC²

Results

- Enabled virtualization of critical PACS applications
- Provided anytime, anywhere access to critical patient information, improving efficiency and patient care
- Eliminated tape backup and recovery systems
- Provided ability to meet increased data storage requirements that may result from healthcare legislation

The hospital also chose VMware® View for its virtual end user computing implementation. EMC Avamar® deduplication backup software and system provides backup and recovery.

SUPPORT FOR THE CLOUD

St. Bernard Parish Hospital has virtualized 98 percent of its mission-critical applications, including its Healthland health information system (HIS), its two PACS systems, which support radiology and cardiology, and another 20 support applications.

"Working with Universal Data, we were able to bring critical PACS applications into the virtualization fold," says Dougherty. "It's my belief that the design and flexibility of VNX integrated with VMware made this possible."

Scott Heath, Universal Data, Senior Network Engineer, agrees: "Mr. Dougherty came to us saying, 'We need these two PAC systems spun up quickly.' Within four hours they were ready to go."

VNX also supports the hospital's virtualization strategy with performance made even faster by FLASH 1st. By utilizing just a few Flash drives to handle the majority of IOPS, customers are able to purchase fewer drives overall, reducing CapEx. Additionally, Flash drives have lower power and cooling costs per transaction as compared with HDD's, which lowers OpEX. And the automated tiering functionality, FAST VP, improves efficiency and maximizes storage utilization by eliminating the need for manual migration of data as its activity level changes.

VNX scalability also ensures that the hospital's data storage requirements will be met well into the future.

"Current data and virtual machines easily reside on our 16 terabytes of available storage," Dougherty states. "The Patient Protection and Affordable Care Act will change what data we have to store, and the number of data elements per patient. That's why I wanted a solution that we can grow by adding capacity with very little impact to downtime or the configuration."

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Peter W. Dougherty
CIO at St. Bernard Parish Hospital

ANYTIME, ANYWHERE ACCESS

St. Bernard Parish Hospital based its virtual end user computing system on VMware View, which provides hospital staff with anytime, anywhere access to critical applications, patient records, PACS data, and other information.

"We have approximately 150 zero client devices that use VMware View," Dougherty says. "Almost all applications are accessible to staff through the VMware View environment."

With VMware View, staff members have immediate access to critical patient information no matter where or when they log on, improving staff efficiency and effectiveness, and patient care.

"Having a true zero client environment means that all parameters travel with users on their zero client devices. It doesn't matter where they log on—they get the same desktop, the same icons, the same background, the same look and feel. That was key to me when deciding on VMware View," says Dougherty.

VMware View provides hospital staff with fast access to patient data and quick boot up times. Because upgrades happen centrally, they are seamless and do not require servicing each zero client device.

Dougherty explains, "When we first deployed VMware View, I wanted an update on all devices as soon as possible. The engineer working on it apologized because it was going to take 30 minutes to update all active devices. I was blown away because with older technology, a similar update would have taken a week."

ACCURATE BACKUP AND RECOVERY

Working with UDI, St. Bernard Parish Hospital has also installed a dual-node Avamar system for backup and recovery. When the hospital opens its second data center, Avamar nodes will be installed at both the primary and secondary sites.

"I knew I wanted a disk to disk solution so that I didn't have to deal with tapes, tape rotation, and tape libraries," Dougherty states. "We're already working with UDI to deploy a second Avamar node and a second VNX for additional realtime backup and realtime data access. It's all going to use our own Fibre Channel, so it will be very fast."

Avamar will ensure that the hospital's vital patient data is protected and will help it comply with strict patient-centric regulatory requirements.

ITAAS FOR PATIENT EXCELLENCE

The EMC private cloud solution will enable St. Bernard Parish Hospital doctors and staff to deliver excellence in patient care through high performance access to critical patient records and images.

CONTACT US

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