

## success story



hp solutions enable  
Atlantic Health  
System to  
accomplish  
a massive IT  
consolidation

"Our objective was to consolidate the four hospital data centers, freeing up valuable patient care space, and relocate them into one large off-site facility capable of handling the IT needs for the entire organization in a more effective and cost-efficient manner, including a helpdesk and customer service desk running 24 x 7. HP and our systems integrator, Melillo Consulting, teamed to deliver a massive project that was flawless."

**Robert Hendricks**  
CIO, Atlantic Health System

In 1996, Atlantic Health System (AHS) formed one of the largest health care organizations in New Jersey. Made up of four major hospitals, serving over five million people in 11 counties with 1,832 beds, each hospital came with its own separate and unique IT infrastructure. Getting its corporate arms around the disparate systems, and an IT staff spread across several sites, proved to be a challenging, yet rewarding task for Robert Hendricks, CIO for AHS.

According to Hendricks, "Our objective was to consolidate the four hospital data centers, freeing up valuable patient care space, and relocate them into one large off-site facility capable of handling the IT needs for the entire organization, including a helpdesk and customer service desk running 24 x 7. HP and our systems integrator, Melillo Consulting, teamed to deliver a massive project that was flawless."

### **custom designed data center**

The new 35,000 square foot facility includes a 5,300 square foot data center, and was strategically positioned in a location central to the four hospitals. Once the new facility had been constructed, and with an eye toward simplifying the overall infrastructure, Hendricks and his team tackled the job of evaluating the legacy systems to determine their continued viability. "We learned a great deal from our old environments," he said. "For instance, to enhance the performance of our back-up solution, we implemented a redundant fiber optic channel storage area network (SAN). Because we also wanted to automate as many functions as possible, we focused on building in redundancy at all levels, and identifying all single points of failure."

AHS's primary hospital information systems application vendors are McKesson and General Electric. These systems are critical in delivering the clinical information necessary to support staff in delivering quality care to patients. McKesson systems also support the registration, billing and

revenue collection for most of AHS's hospital facilities.

### **a total hp server and storage solution**

AHS evaluated server options to fit its current and future software needs. Most of the existing business-critical applications were HP-UX based, so Hendricks equipped the new data center with 18 hp rp7400 servers. Additionally, many existing HP ProLiant servers were moved to the data center to continue running specific Microsoft Windows® applications and Netware services. HP OpenView systems management software was selected as the foundational tool for enterprise management to enable efficient operations with comprehensive control.

"Knowing that we had chosen a fiber channel SAN, with the assistance of Melillo Consulting – our local systems integrator – we opted for a solution design that was simple and sturdy, with plenty of flexibility for growth. When we compared EMC storage, which we had experienced in our legacy infrastructure, with the disk arrays available from HP, it was a clear choice: the HP StorageWorks Disk Array xp512. The xp512 best met our price/performance objectives and can accommodate concurrent UNIX® and Windows file storage," Hendricks explained.

For server connectivity to the SAN the company installed fully redundant HP Brocade switches. "During the implementation of the hardware, we took the opportunity to upgrade all of our applications operating systems to revision 11," Hendricks reported, "then we successfully tested everything and checked that fail-over worked to the redundant components."

To complement the redundancy and complete the high-availability plan, the hospital employs HP Personalized Systems Support with a 12-hour call-to-repair agreement. "Our fail-over configuration flexibility affords us the opportunity to swap out faulty

## **industry healthcare**

### **challenges**

- **consolidate four data centers running disparate system environments into one new facility**
- **simplify and consolidate servers running a variety of healthcare applications including multiple McKesson and GE applications**
- **select a data storage solution that could simultaneously store files from multi-operating systems**
- **reduce hardware failure rate and high cost of support**

### **solution**

- **migrate to an hp StorageWorks Disk Array xp512 storage area network solution**
- **equip the new data center with 18 hp server rp7400s running HP-UX 11i**
- **build in hardware redundancy, avoiding single points of failure**
- **maximize IT budget via hp Financial Services**

### **results**

- **developed a single-source data center capable of running IT requirements of all four hospitals**
- **achieved maximum utilization of infrastructure solutions within existing IT budget**
- **reduced downtime and improved back-up time**



### at-a-glance

**partner:** Melillo Consulting, Inc.

**headquarters:** Somerset,  
New Jersey

**telephone:** (732) 563 8400

**URL:** www.mjm.com

**primary business:** a leading integrator specializing in enterprise management, storage networking, eBusiness and mission critical computing solutions

components and have them repaired at our convenience. We have found that this configuration of hardware fail-over and HP support meets the needs of AHS most efficiently," Hendricks said.

### consolidation reaps rewards

Describing the positive results of the overall consolidation effort, Hendricks highlighted an example: the speed of performing back-up functions. "Prior to the SAN it was necessary to perform individual back-ups of each server's storage devices. Now with the consolidated data residing on the xp512, we're able to schedule a coordinated, automated back-up of 1.25 terabytes of data per hour, well within our eight hour 'back-up window.'

"Our legacy environment had reached its end-of-life and we were beginning to experience failures and more costly support contracts. It was clear that we had to upgrade. It was important to us that we achieve the best leverage of our IT budget and in the end, we spent it wisely with HP. I believe we got excellent value. Plus, we were able to stretch our budget further than expected by funding the entire project from a capital lease with HP Financial Services."

The data center consolidation has allowed AHS the ability to expand its patient services into the old data center spaces freed up in each hospital. At the same time the IT infrastructure operational costs have been reduced, permitting monies to be redirected

towards patient care. Finally, the consolidated IT operations permit efficient access to consolidated patient information for optimal patient care by AHS's physicians.

In conclusion, Hendricks recounted his satisfaction in collaborating with HP. "We elected to partner with HP because it demonstrated a high level of respect for our organization and has consistently maintained a high-quality reputation within our industry. With the HP & Melillo Consulting team, we've developed a data center that's powerful enough to run any kind of business, not just in the healthcare field. When you examine our operational processes and documentation, it's clear you're looking at a top-notch shop. I'm very proud of our accomplishments and of our relationship with Melillo Consulting and HP."

For more information on how working with Hewlett-Packard can benefit you, contact your local HP service representative, or visit us through the Internet at our World Wide Web address: <http://www.hp.com>

### at a glance:



**company:** Atlantic Health System

**headquarters:** Florham Park,  
New Jersey

**founded:** 1996

**telephone:** (973) 660-3100

**URL:** www.atlantichealth.org

**primary business:** one of the largest health care systems in New Jersey and in the top one hundred largest integrated health care networks nationwide, made up of four major hospitals, including a rehabilitation center. Atlantic Health System hospitals serve nearly five million people in 11 counties in northern and central New Jersey, offering a total of 1,832 beds, and provide a wide array of health care services.

### solution details

- hp StorageWorks Disk Array xp512
- 18 hp server rp7400s
- hp ProLiant servers
- hp Brocade switches
- hp Personalized Systems Support
- hp OpenView systems management software
- McKesson and GE healthcare applications
- capital lease from hp Financial Services
- systems integration from Melillo Consulting

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Published in USA M1102  
5981-4463EN