



KEY HIGHLIGHTS

INDUSTRY: HEALTHCARE

**CHALLENGE**

Server proliferation maximizes available data center resources, hindering IT expansion

SOLUTION

VMware Infrastructure 3 creates a flexible and scalable virtual infrastructure that frees up data center resources and supports growth.

VMWARE AT WORK

VMware Infrastructure 3 Enterprise, featuring:

- VMware ESX3, including VMware VMFS (Virtual Machine File System)
- Virtual SMP
- VirtualCenter Agent
- VMotion
- VMware DRS (Distributed Resource Scheduler)
- VMware HA (High Availability)
- VMware Consolidated Backup
- VirtualCenter Management Server (including VMware Converter, Enterprise)

DEPLOYMENT ENVIRONMENT

- ESX Servers running on Proliant DL380s attached to an HP EVA SAN
- Guest operating systems: Window Server 2000, Windows Server 2003, Windows XP, Windows Vista, Linux
- Pre-production Applications: Print Servers, SQL Servers, Intranet Web Servers and Various Clinical Applications are in Development and Testing.
- Production Applications: Webroot Anti-Virus/Spyware, Intranet Web Applications, Citrix Web Interface Servers, HP JetAdmin, Microsoft Windows Update Services, Blackberry, SQL servers

“Virtualization is no longer a ‘maybe’ for enterprise IT environments—it’s a necessity. We need to reduce costs and make more efficient use of resources, and VMware Infrastructure 3 helps us achieve that goal.”

Benjamin Bordonaro

CTO, Hackensack University Medical Center

Hackensack University Medical Center

Hackensack University Medical Center (HUMC), a 775-bed teaching and research hospital affiliated with the University of Medicine and Dentistry of New Jersey is the largest provider of inpatient and outpatient services in the state of New Jersey.

As HUMC’s IT infrastructure grew, its data centers started to experience growing pains. “Our power and cooling was tapped out at both of our data centers,” says Benjamin Bordonaro, CTO at HUMC. “Our IT environment grows at a rate of about 50 new servers per year, but we weren’t in a position to continue adding physical servers—we simply did not have any more wiggle room when it came to power and cooling.”

After deciding to explore virtualization, HUMC selected VMware Infrastructure 3 as an ideal way to consolidate servers and take some pressure off of its power and cooling constraints. “That was the initial benefit: knowing that any necessary expansions would no longer be held back by power and cooling limitations,” says Bordonaro. “But the more we used VMware Infrastructure 3, the more benefits we experienced in additional areas, such as simplified IT administration and lower total-cost-of-ownership. Over a five year period, we anticipate that our implementation of VMware Infrastructure 3 will reduce the total cost of ownership for our IT infrastructure by nearly 45 percent—that’s a savings of \$1.2 million.”

Results

- **Achieve 13:1 server consolidation ratio.** “We have 40 virtual machines running on just three VMware ESX hosts—and we’re just getting started,” says Bordonaro. “I want to virtualize as many applications as we can in the coming year.”
- **Shave weeks off of server deployment time.** “Procuring and provisioning a new server used to take at least a week, if not several weeks,” says Bordonaro. “With VMware Infrastructure 3, we can accomplish the same task in less than a day.”
- **Reduce IT staff time spent on repetitive tasks.** “If I’m deploying a new application that requires five web servers, I don’t have to spend an overnight shift re-imaging a bunch of hardware,” says Bordonaro. “VMware Infrastructure 3 makes it easy to create multiple clones based on templates.”