

# Datatrend at HealthEast® Care System



## CUSTOMER PROFILE

HealthEast Care System is the largest healthcare provider in the eastern Minneapolis-St. Paul metropolitan area. Established in 1986 from the merger of several healthcare entities, HealthEast today comprises a broad range of facilities and services, including four hospitals and 16 clinics. The system has an estimated 7,300 employees and is served by approximately 1,400 physicians.

Over the years, HealthEast has received numerous awards and recognitions. For example, in 2008, *Modern Healthcare* magazine named the organization one of its "Top 100 Places to Work." Also in 2008, *Minneapolis/St. Paul Business Journal* ranked HealthEast one of the "Best Places to Work" — for the fourth consecutive year.



## Business and IT Challenges

### *'Zero Additional Power Available'*

Like other major healthcare organizations in the last two decades, HealthEast Care System relied on a large, complex computing environment to manage a broad spectrum of business and clinical functions. Over the years, as new applications were deployed, the organization installed more servers. By 2007, when the count reached 300, HealthEast's information technology (IT) leadership realized that the data center had reached its server limit.

"We simply had zero additional power available to us in the data center. We literally could not install another server," explains Bill Pollock, HealthEast System Director of IT.

The need to consider a new course of action was driven by other factors, too. Managing 300 servers consumed an enormous amount of IT staff time. Then there was the "real estate" cost of housing so many servers. On average, each server rack requires two to four tiles of data center space, and most companies estimate the cost of this real estate to be between \$17,000 and \$21,000 per rack.

## The Solution

### *Server Virtualization and Consolidation*

In October 2007, HealthEast looked to Datatrend Technologies for assistance in addressing server sprawl, overcoming power limitations, and reducing the big expense of maintaining a congested data center.

The answer: a major server virtualization and consolidation initiative, accomplished as a collaborative effort by Datatrend and the HealthEast IT team.

Specifically, HealthEast replaced 184 small HP x86 servers with five IBM x3850 M2 high-capacity servers. Now, instead of one application per server — as is often the case in business today — dozens of applications can run on a single server.

Consolidation ratios for virtualized servers typically run anywhere from 10:1 up to 30:1, according to Datatrend's virtualization experts. The HealthEast project netted a 37:1 consolidation ratio.

"Ours was a remarkable consolidation result, even by industry standards," declares Pollock.

# The Rewards

## *A 40% Reduction in Power Consumption...and More*

The server virtualization and consolidation project brought an immediate and dramatic response to HealthEast's top concerns:

- A 40% reduction in data center power consumption
- Dramatically decreased utilization of data center space, plus mitigation of future expansion needs
- Improved application performance
- Strengthened business continuity and disaster recovery capabilities
- Less IT staff time diverted to managing servers

As a result of the cost savings, HealthEast is on track to recover its project investment within 14 months.

Outcomes like these are not uncommon, thanks to significant advances in virtualization technology, coupled with Datatrend's extensive virtualization expertise. Many Datatrend clients realize as much as a 30% to 50% decrease in hardware costs, a 70% to 80% reduction in datacenter space, a 40% reduction in application load times, and/or overall IT efficiency gains of 25%.

Someone who's unfamiliar with virtualization might view such a huge reduction in servers as contradictory to performance gains. To be sure, there were doubters at HealthEast.

"Initially, many of our end users were skeptical about what would happen with their applications," says Pollock. "Some of our application developers were reluctant, too. They tend to be very picky about the hardware their clients use to run the software; most of them want a dedicated standalone physical file server for each application. They may not realize how completely isolated the applications can be on virtual servers."

It didn't take long to win over the doubters, according to Pollock. "Initial skepticism was quickly replaced by enthusiasm when everyone discovered the exceptional performance and scalability of the virtualized IBM platform."

In fact, he notes, many end users were pleasantly surprised when they discovered that their applications actually ran *faster* in the new virtualized/consolidated server environment.



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Bill Pollock,  
System Director of IT  
HealthEast Care System

# The Datatrend Approach

## *Applying a wealth of virtualization expertise*

Datatrend owns a long history of assisting companies and organizations with virtualization and consolidation initiatives. In each case, Datatrend invests a substantial amount of front-end assessment and planning before launching into an implementation.

Next, Datatrend used this assessment data to build a consolidation plan and business case, which helped demonstrate the project's benefits and predicted return on investment to the full HealthEast leadership team.

"Datatrend took the time to thoroughly appraise our x86 server environment," says Pollock. "I was very impressed with how closely they worked with us to understand our infrastructure challenges, as well as our short-term and long-term business goals.

Datatrend also supplied HealthEast with benchmark data and customer references to further validate the initiative, he adds.

Pollock cites other Datatrend capabilities and attributes as contributing to the success of the project, including:

- **The expertise to virtualize more than servers.** Although it wasn't part of the original project scope, Datatrend recommended virtualization of HealthEast's local area network (LAN). This virtualized LAN has contributed to the improvements in application performance.
- **An industry-leading technology solution center.** Datatrend's comprehensive services included complete infrastructure design and configuration, as well as assisting HealthEast with demonstrations, testing, and benchmarking.

"Ultimately, we achieved more than what we expected," states Pollock. "Our new virtualized environment will provide continuous cost savings — and this is very important for supporting our overall mission of providing high-quality, compassionate, and cost-effective health care.

"At the same time, we've realized a number of other very positive outcomes, not the least of which is the outstanding cost-to-performance advantage of the IBM platform versus our old server hardware. We believe that the IBM infrastructure will also deliver excellent reliability, allowing us to keep our critical applications running without interruption."

## About Datatrend Technologies

Founded in 1987, Datatrend Technologies provides a full range of virtualization consulting services, encompassing server strategy, solution design, and implementation; VMware licensing and support/subscription services; platform sourcing; and implementation. In addition to the x86 environment, Datatrend's virtualization expertise extends to UNIX, storage, networks, and desktops.

For more information, visit [www.datatrend.com](http://www.datatrend.com), or call **800-367-7472**.

