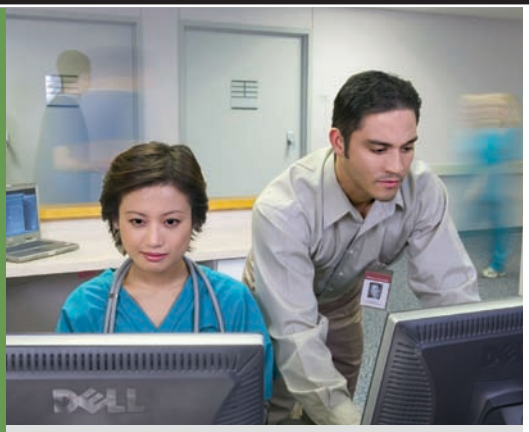

A HEALTHY APPROACH TO SERVER SPRAWL

By migrating to Dell™ PowerEdge™ blade servers, BlueCross BlueShield of Western New York shrinks its data center footprint by 75 percent and improves efficiency by over 50 percent.

CHALLENGE

Health care insurer BlueCross BlueShield of Western New York sought to consolidate its disparate claims-processing server environment to reduce administrative complexity and speed the deployment of new applications and services.

SOLUTION

Dell helped the organization migrate more than 100 servers to Dell PowerEdge M600 blade servers in four PowerEdge M1000e modular blade enclosures without disrupting the business or end users.

BENEFITS

- Shared resources and remote management capabilities help increase IT efficiency by an estimated 60 percent.
- Dell PowerEdge enclosures and blade servers save an estimated 20 percent in hardware costs over 1U and 2U server architecture.
- Dell PowerEdge blade server consolidates racks by 75 percent, helping cut power costs by US$6,000 per year initially and as much as US$40,000 per year.

Related Categories:
Blade servers, BlueCross BlueShield of Western New York, case study, Dell Infrastructure Consulting Services (ICS), Dell PowerEdge blade servers, flexible computing, virtualization, VMware

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Ideally, the business side of health care should be a secondary concern. Health care insurance provider BlueCross BlueShield of Western New York (BCBS) works hard to help both doctors and patients focus on wellness instead of where to send the bill. BCBS supports more than 800,000 members with simple, straightforward health coverage; easy-to-understand plans; and hassle-free access to information.

BCBS relies on a deep IT infrastructure for everything from claims processing to provider payments and internal operations. However, keeping the BCBS environment running effectively and efficiently had become increasingly expensive and time-consuming. With hundreds of servers running an array of applications on a variety of hardware and operating systems, the BCBS IT team realized that the company had reached an inflection point. The team began by consolidating the IT environment through server virtualization, reducing the server footprint to just over 100 physical servers and 20 virtualized hosts. But they knew that more had to be done to lower costs and ease the management burden on the IT staff.

CONSOLIDATING TO POWERFUL, EFFICIENT BLADE SERVERS

The BCBS IT team calculated that moving from rack servers to blade servers would simultaneously streamline administration and maintenance while preserving the ability to provide dedicated servers when necessary, reducing energy costs, and promoting green technologies. When the team compared solutions from several blade vendors, Dell PowerEdge blade solutions stood out as the clear winner. "The Dell PowerEdge blades and enclosures gave us the best combination of price, performance, and configuration capacity," explains Charles Kibby, technical purchasing coordinator for BCBS. The Dell PowerEdge M1000e modular blade enclosure enabled the team to pack 16 blades into a chassis, compared with a limit of 8 blades per chassis from other vendors. And each PowerEdge blade server could support as many as 20 virtual machines, helping increase efficiency.

The company's prior relationship with Dell also made the decision easy. "We've found that working with Dell allows us to get localized attention when we need it, from the initial planning and configuration all the way through the installation process," says Tim Frank, special projects/IT infrastructure for BCBS.

The team migrated to 64 Dell PowerEdge M600 blade servers with quad-core Intel® Xeon® processors, housed in four PowerEdge M1000e enclosures. BCBS allocated three enclosures to application servers, additional virtualized hosts, and a lab manager environment. The remaining enclosure was dedicated to the next phase in the company's virtualization strategy: VMware® Virtual Desktop Infrastructure (VDI). "VDI running on Dell PowerEdge blades offers us substantial cost savings by replacing standard desktops with remote terminals, with 45 virtual desktops hosted on a single blade," explains Brian Chapman, manager of network systems for BCBS. "All the processing, storage, and most memory resides on a blade instead of the local desktop, extending the average life of the client system from three years to five years or longer. Plus, absolutely no data can be stored on the local terminals, so we're better securing patient data for our customers."

The company's IT team has worked side by side with Dell engineers throughout the entire process. With two months of planning and instruction as well as help with the installation and initial hardware training, Dell Global Infrastructure Consulting Services enabled BCBS staff to integrate the blade project into their normal workload without disrupting the business or end users.

SIMPLIFYING SERVER DEPLOYMENT AND MANAGEMENT

The Dell blade servers led to immediate hardware cost savings for BCBS. "With the performance and scalability of the Dell chassis and blades, we can replace our servers every five years instead of every three years, which we expect to cut our hardware expenditures by 20 percent," says Kibby.

Kibby also credits the enclosure's shared resources and remote management capabilities with easing the administrative complexity of BCBS's environment and accelerating deployment. "With the Dell PowerEdge M1000e blade enclosures and the PowerEdge M600 blade servers, we see a 60 percent increase in efficiency, which lowers the cost of doing business," he explains. "Our IT staff doesn't have to constantly set up or move around cables inside our data center, worry about power management for individual boxes, or other day-to-day functions that you need with a standard 2U or 4U architecture. Instead, they can remotely conduct much of the day-to-day maintenance without having to leave their desks."

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>
> —Charles Kibby
> Technical purchasing coordinator
> for BlueCross BlueShield of Western New York
> April 2009

By shortening the time to production, IT is helping end users quickly realize the benefits of new applications and services. "Previously, providing a server took a day and a half just to get ready for an application to be loaded—unboxing, racking, cabling, loading the operating system, getting the patches ready, and more," says Frank. "With the PowerEdge M600 blades, it will be as little as four hours versus as much as three days to prepare a new server."

OPTIMIZING THE DATA CENTER

The Dell blade servers have helped BCBS take a major step toward realizing a greener data center. "Our data center footprint was reduced from four racks of 1U and 2U servers to the equivalent of one fully configured rack," says Kibby. "Using the Dell PowerEdge M1000e enclosure and the PowerEdge M600 blades, we expect to see an energy savings of US$6,000 per year initially and as much as US$40,000 per year as expiring physical servers are converted to blades. We'll also reduce our space requirements, which will tie in with our LEED Silver Certification."

Ultimately, the BCBS IT team feels that the benefits of migrating to Dell blade servers reach far beyond the data center. "Dell has helped us increase our efficiencies across the board, which accelerates claims processing as well as payment to the health providers we work with," says Frank. "Better yet, the cost savings can be passed on to our end customers." Kibby agrees: "The importance of our Dell enclosure and blades is that they allow us to provide seamless claims processing when supporting patients around the country. That means our customers can be confident we're supporting them as they focus on their health and that of their families."

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