

BANKING ON BETTER ACCESS

Dell PowerEdge servers running Windows Server 2008 help a major U.S. bank cut remote access connection time by 50 percent, boosting IT help-desk response



SOLUTION

- MANAGEMENT/UTILITIES

CUSTOMER PROFILE

COUNTRY: United States

INDUSTRY: Financial Services

NUMBER OF EMPLOYEES: 25,000

CHALLENGE

A major U.S. bank relies on its server infrastructure for 24/7 operations, but limited remote access to tools and applications made it difficult for the IT team to respond quickly when a server was down.

SOLUTION

Through the Dell Longhorn Early Adopter Program for Microsoft® Windows Server® 2008, the bank implemented Dell™ PowerEdge™ 2950 servers running Windows Server 2008 with Terminal Services to provide IT team members with simplified remote access—helping to shorten problem resolution times.

BENEFITS

Get IT Faster

- Dell Longhorn Early Adopter Program helped the bank IT staff complete the project 20 percent faster than it would have on its own

Run IT Better

- Terminal Services in Windows Server 2008 helped enable 50 percent faster access to IT tools and applications, boosting help-desk response and reducing downtime for bank employees
- Service installation and administrative role separation capabilities in Windows 2008 helped enhance security; as a result, the IT team expects fewer server problems

Grow IT Smarter

- Windows Server 2008 with Terminal Services can be expanded to other groups within the bank to help further improve productivity and customer service

The Dell logo, consisting of the word "DELL" in a stylized, white, sans-serif font, is centered within a black circular background. The logo is set against a blue circular backdrop that has a slight gradient and a white border.

With the advent of the Internet and online banking services, most banks don't shut down when the clock strikes 5 p.m. Neither do their IT departments—IT professionals at many banks are on call day and night to keep the IT systems running smoothly. One major U.S. bank is using remote access technology to help its IT group cope with a widely distributed business structure: the bank has nearly 800 branches spread across six states. The IT group maintains more than 1,800 servers that support the bank's customer-facing and administrative operations. At night, servers remain in use to support online services and generate a wide range of reports.

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Project manager, major U.S. regional bank

More than 90 percent of the bank's servers run the Microsoft Windows Server 2000 or Windows Server 2003 operating systems, and the IT group has a team of 20 technicians assigned to manage those servers around the clock. The bank's Windows Server team configures systems to meet corporate standards and security policies and handles server help-desk calls, responding rapidly to keep systems up and running in accordance with service level agreements (SLAs).

When a system fails in the middle of the night, the IT technicians use remote access technology to resolve the problem from home instead of driving to the office. During the day, remote access helps the technicians respond quickly when working off-site.

TIME-CONSUMING REMOTE ACCESS PROCESS SLOWS IT RESPONSE TIME

Although remote access to tools was a real benefit for the Windows Server team, the process of connecting to those tools was labor-intensive and time-consuming. Team members connected to the corporate network using a VPN client, then ran the applications on a terminal server. "It took 10 or 15 minutes to establish a VPN connection and get everything up and running before we could actually start supporting anyone," says a project manager on the server team. "That can seem like an eternity to customers who page us in the middle of the night with an urgent problem. They don't understand what takes so long." With many SLAs calling for resolution within two hours, the server team needed a fast, smooth access method.

HOW IT WORKS

HARDWARE

- Dell™ PowerEdge™ 2950 servers with quad-core Intel® Xeon® processors

SOFTWARE

- Microsoft® Windows Server® 2008 Enterprise
 - Terminal Services Gateway
 - Terminal Services Web Access

SERVICES

- Dell Longhorn Early Adopter Program
- Dell Services

“WITH DELL POWEREDGE SERVERS RUNNING WINDOWS SERVER 2008 WITH TERMINAL SERVICES, WE’RE ABLE TO CONNECT TO OUR IT TOOLS AND APPLICATIONS FAST.”

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BROAD ACCESS TO SERVER OS ENVIRONMENT RAISES SECURITY CONCERNS

The IT team was also concerned about the security limitations of the server configuration and deployment process it was using. To help ensure security, the team was required to limit the OS services enabled on each server, depending on its intended use. “For example, the human resources and loan servicing departments can’t have access to all of the same data,” explains the project manager. “We had to turn off some services according to the bank’s security policies and lock down the configuration.”

Locking down the servers was not only a time-consuming process for the team, but also proved

to be only partially effective. “About 200 of our servers are randomly audited each year by an outside firm,” says the project manager. “The auditors routinely discover that some line-of-business users have accessed the server OS environment and re-enabled services that they wanted to use. We also find that they asked us to temporarily turn on a feature for research purposes and it was never turned back off. We were looking for ways to eliminate those problems.”

DELL TEAM RECOMMENDS WINDOWS SERVER 2008 FOR ENHANCED ACCESS AND SECURITY

The bank IT group had previously standardized on Dell servers and had a strong relationship with its Dell team. The group decided to approach Dell

for ideas about potential solutions. “We’re a Dell shop, and one of the things we appreciate about the Dell team is how knowledgeable they are about everything related to server technologies,” says the project manager. “They work closely with Microsoft and other major vendors, and there is a lot of knowledge sharing among them that directly benefits us. The Dell servers are reliable, but when we do have questions, Dell gets the answers to us quickly, whether it turns out to be a hardware-related issue or not.”

To address the bank’s challenges, the Dell Services team recommended that the IT team investigate the enhanced Terminal Services features of Windows Server 2008 Enterprise. Dell Services also introduced the IT team to the Dell Longhorn Early Adopter

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Project manager, major U.S. regional bank

Program for Windows Server 2008, so that team members could learn about the software prior to its general release and set up a pilot implementation. The new Terminal Services Gateway (TS Gateway) and Terminal Services Web Access (TS Web Access) features use Remote Desktop Protocol (RDP) tunneled over HTTP over SSL (HTTPS) to create an encrypted connection between terminal servers and any computer running the Remote Desktop Connection 6.0 client. The connection can be quickly established over the Internet and eliminates the need for a VPN.

BANK IT TEAM SEES POTENTIAL IN NEW TERMINAL SERVICES FEATURES

The bank IT team quickly recognized the potential of Windows Server 2008 and the Dell program. “This looked like a great opportunity to speed access to our centrally located tools and applications using the improved ease-of-use features in the new Terminal Services in Windows Server 2008,” says the project manager. “We could also help eliminate server audit problems, because Windows 2008 would enable us to load only the services appropriate to each machine and restrict administrative access. And we could implement it with expert guidance from Dell.”

The structure of the four-week, on-site program impressed the bank IT team with its thoroughness and organization. “We knew well in advance what the specific timelines would be for infrastructure review, project design, testing, and then implementing the solution,” says the project manager. “That enabled us to plan our time and resources efficiently and get the most out of the experience.”

DELL EXPERTISE HELPS FACILITATE A SUCCESSFUL WINDOWS SERVER 2008 IMPLEMENTATION

Dell Longhorn Early Adopter Program leaders worked closely with the bank’s IT team, generating ideas and making suggestions that the IT team members might not have come up with on their own. “By taking part in the Dell Longhorn Early Adopter Program, we had an engineer who was thoroughly familiar with Windows Server 2008 and Dell PowerEdge servers from the start,” notes the project manager. “We used Dell expertise to help minimize the risks and help ensure we got it right the first time. The Dell engineer showed us a lot of things we could configure or change to fit our needs.”

To support the remote access needs of the 20-member IT server team, the bank implemented the TS Gateway and TS Web Access features of Windows Server 2008 in its data center on two Dell PowerEdge 2950 servers with quad-core Intel® Xeon® processors. “We chose the PowerEdge 2950 two-socket server because it’s a flexible solution,” says the project manager. “It helps give us the performance to support almost any type of application while keeping space and energy needs down.” As a final step, Dell engineers helped the bank IT team configure its applications and made sure that team members could remotely access the applications from their computers.

DELL PROGRAM HELPS SPEED IMPLEMENTATION BY APPROXIMATELY 20 PERCENT

The project went so smoothly that the design and implementation phases were completed ahead of

schedule. “We couldn’t have asked for a better team from Dell to work with us,” says the project manager. “The communication was great and we got everything implemented in a timely manner.” The IT team estimates that it would have taken at least an additional week to implement the project on its own. “That’s a time savings of 20 percent,” says the project manager. “With some of the time we had left over, we were able to explore the capabilities of the OS in more detail than we had planned, which our IT technicians really appreciated.”

BOOSTING ACCESS SPEED BY 50 PERCENT HELPS IMPROVE IT TEAM RESPONSE TIME

The new Terminal Services features helped streamline remote access: instead of starting up the VPN client and logging onto the server, the IT team can now simply access what it needs from the Web. “With Dell PowerEdge servers running Terminal Services in Windows Server 2008, we’re able to connect to our IT tools and applications fast,” says the project manager. “It no longer requires 10 to 15 minutes before we can start solving a user’s problem. Most of the time it takes less than 5 minutes.”

Quick access times mean that the IT team can ultimately resolve issues fast. “Multiplying that 10 minute savings per service call by the thousands of calls we make each year, we estimate we can significantly reduce server downtime.”

“SIMPLIFYING ACCESS WITH WINDOWS SERVER 2008 ULTIMATELY HELPED INCREASE THE PRODUCTIVITY OF BANK EMPLOYEES AND HELPS THEM PROVIDE BETTER SERVICE TO THE CUSTOMER.”

Project manager, major U.S. regional bank

ENHANCED SECURITY PROJECTED TO HELP REDUCE IT TROUBLESHOOTING TIME

The IT team is using the administrator role separation feature of Terminal Services in Windows Server 2008 to enhance security during server configuration and implementation. “Security is essential to a bank,” says the project manager. “We need to limit the services and other capabilities that we enable on each server to prevent unintended uses. With Terminal Services in Windows Server 2008, we can restrict administrative access so that only our team can make important changes.”

Tightening administrative access is saving troubleshooting time for the IT server team, too. “Configuration changes made by a user often have unintended consequences and result in a service call,” says the project manager. “We might have to spend half a day figuring out exactly what went wrong, which results in downtime for users and drains IT resources.” By using the administrative role separation feature in Terminal Services to lock out unauthorized changes, the IT team expects to reduce the time spent troubleshooting server problems.

EXTENDING REMOTE ACCESS IN THE FUTURE

Now that the server team is successfully running Windows Server 2008 on Dell PowerEdge servers, the bank is considering expanding the Terminal Services remote access features to other groups, ranging from management information services to the mortgage loan department. “Many employees could benefit from fast, easy remote access to their applications,” says the project manager. “Simplifying access with Windows Server 2008 ultimately helps increase the productivity of bank employees and helps them provide better service to our customers. For banks as well as IT departments, customer service is everything.”

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