

- BACKUP/RECOVERY/ARCHIVING ■
- CLUSTERING ■
- CONSOLIDATION ■
- DATABASE ■
- MANAGEMENT/UTILITIES ■
- MESSAGING ■
- VIRTUALIZATION ■

COMPANY OVERVIEW

Bank-Fund Staff Federal Credit Union is a full-service financial cooperative organized and chartered in 1947; it serves primarily the staffs of The World Bank Group and the International Monetary Fund (IMF). www.bfsfcu.org

CHALLENGE

Bank-Fund Staff Federal Credit Union needed to provide World Bank and IMF employees with access to secure and reliable financial services that are delivered in countries worldwide.

SOLUTION

Deploy Dell™ PowerEdge™ servers running the Microsoft® Windows Server® 2003 operating system to host a variety of Microsoft and other financial industry applications supported by Microsoft SQL Server databases; replace local server storage with a centralized Dell/EMC storage area network (SAN); deploy Dell OptiPlex™ desktops and Dell Latitude™ notebooks

BENEFIT

Implementation of Dell equipment provides a highly available and reliable IT infrastructure to help ensure stable and secure financial services to the employees of the World Bank and IMF—no matter where they are located.

World-Class Banking

Bank-Fund Staff Federal Credit Union relies on Dell equipment and services to deliver secure, reliable banking solutions to its members

In 1946, the World Bank and International Monetary Fund were created to help fund global reconstruction efforts after World War II. One year later, the Bank-Fund Staff Federal Credit Union was founded to provide financial services to employees of the World Bank and IMF. Today, the World Bank and IMF continue their mission of improving the economic stability of developing countries, and the Washington, D.C.–based full-service Credit Union now serves over 52,000 members and operates 4 offices. With over US\$2 billion in assets, Bank-Fund is among the top federally chartered credit unions in the United States.

But while World Bank and IMF employees might be used to working in politically and economically unstable environments, they expect stability from their financial services provider. “We are somewhat unique for a credit union in that we serve an affluent and well-educated multinational membership base,” says Jesse Boyer, manager of IT at Bank-Fund. “I believe that our members view security and stability as two of the more important things that they look for in a financial institution.”

To help ensure the security and stability of the credit union’s operation, it is essential that Bank-Fund possess an excellent IT infrastructure. “Many of our members come from countries where the financial institutions that they deal with might not be in a position to provide them with the most reliable services,” says Boyer. “So it is our mission to provide the most secure and trustworthy financial services possible. To do that, we need a reliable and robust IT infrastructure.”



“Whenever we need something—whether it’s just a little piece of information, or help with a problem, or assistance with a giant project—Dell is always there for us. We’ve had such good experiences with Dell over the years, we wouldn’t dream of going anywhere else.”

— **Jesse Boyer**, Manager of Information Technology
Bank-Fund Staff Federal Credit Union

Bank-Fund relies on Dell for security and stability

To deliver such security and reliability, Boyer relies on IT infrastructure built almost exclusively on Dell products. “95 percent of our servers and every single one of our desktops are from Dell,” says Boyer. “Virtually all of our desktops, notebooks, peripherals, and software applications are purchased directly through Dell.”

Boyer places such confidence in Dell because of the numerous positive experiences he has had with Dell people and products. “First of all, Dell products are reliable, long-lasting, and they are always at the technological forefront,” says Boyer. “But even more importantly, whenever we need something—whether it’s just a little piece of information, or help with a problem, or assistance with a giant project—Dell is always there for us. We’ve had such good experiences with Dell over the years, we wouldn’t dream of going anywhere else.”

Dell PowerEdge servers and Microsoft software support Bank-Fund applications

Currently, Bank-Fund deploys a wide array of Dell PowerEdge servers throughout the organization, including Dell PowerEdge 750, PowerEdge 1650, PowerEdge 1750, PowerEdge 1850, PowerEdge 1855, PowerEdge 1950, PowerEdge 1955, PowerEdge 2600, PowerEdge 2650, PowerEdge 2850, PowerEdge 2950, PowerEdge 6650, and PowerEdge 6750 servers, as well as PowerVault 220S, PowerVault 775N, and PowerVault 136T storage—all with Intel® Xeon® processors and most running the Microsoft® Windows Server® 2003 operating system. The PowerEdge servers host a variety of applications, including Microsoft® Active Directory®, Microsoft® Exchange e-mail software, and a number of third-party financial services applications. “We’re pretty much a Microsoft shop,” explains Boyer. “And, due to the tight relationship between Microsoft and Dell, the PowerEdge servers have been a fantastic platform for us. The performance is excellent, and we’ve had very few problems.”

In order to support the data needs of those applications, Bank-Fund relies on Microsoft SQL Server 2000 database software. “We have about 10 major applications that we run on SQL Server databases and Dell PowerEdge servers,” says Boyer. “Hyland Software’s OnBase system—our enterprise content management system—Harland Financial Solutions Touché Sales & Service customer relationship management software, e-commerce

software, help desk applications, anti-money laundering solution, and a number of other applications all critical to keeping our business up and running depend on the SQL Server databases that run on PowerEdge servers. The PowerEdge and SQL Server combination is fantastic and very reliable. Plus we have a lot of in-house expertise with SQL Server, which helps in maintaining those systems.”

To manage its large server environment, Bank-Fund deployed Microsoft® Systems Management Server (SMS) and Microsoft® Operations Manager (MOM) server management software. SMS is leveraged to remotely manage, secure, and update the more than 300 desktops at Bank-Fund, while MOM is being used to monitor the performance of both Microsoft and non-Microsoft-based platforms.

Also, as part of its physical security strategy, Bank-Fund has an intrusion detection system deployed on a Dell PowerEdge 1850 running a specialized hardened version of the Red Hat® Linux® operating system. “Security is obviously of great importance to us,” says Boyer. “And just like with our Microsoft environment, our intrusion detection system runs well on the PowerEdge servers.”

Recently, Bank-Fund has started to implement virtualization as a way to optimize the utilization of its servers. “Dell encouraged us to do a VMware assessment,” says Boyer. “With the help of Dell Professional Services and VMware, we did an analysis of our existing environment to determine our application compatibility and the performance we could expect if we moved from a physical to a virtual environment. Based on this assessment, we have implemented a VMware® ESX Server® software-based virtual server farm, which will permit higher utilization rates on our servers.”

Bank-Fund deploys Dell storage for efficiencies and disaster recovery

In addition to its PowerEdge-based server infrastructure, Bank Fund has recently revamped its storage infrastructure by implementing two Dell/EMC SANs. “Currently, we use the local storage on our servers to house data, as well as Dell PowerVault 220S and PowerVault 775N/136T tape libraries,” Boyer explains. “The local storage and tape library have been great, but we’ve decided to also leverage the benefits of implementing a redundant Dell/EMC SAN storage infrastructure. We made that decision to cash in on the efficiencies of a SAN, including better



scalability, more redundancy, and improved ease of maintenance. It also has the potential for cost savings down the road because we won't have to invest in so many disks in our servers."

Also, by implementing two redundant SANs, the new storage infrastructure will serve as a cornerstone of the Bank-Fund business continuity plan. "We wanted to provide real-time replication and high availability," Boyer says. "So we decided to implement two storage area networks with real-time replication between them."

Dell OptiPlex desktop computers support Bank-Fund employees

Due to the demanding nature of providing reliable financial services, Bank-Fund needs significant computing power on the desktop, so it turns to Dell OptiPlex computers to support the needs of its users. "Our enterprise content management and financial processing systems are currently thick client applications that demand a lot processing power," Boyer explains. "During our 2006 PC refresh cycle, we purchased over 200 OptiPlex GX620 desktops with 24-inch flat panel displays for the majority of our staff. They're great computers, and they work really well with our client applications."

Dell Services help make the whole IT infrastructure possible

Boyer points to Dell Assessment, Design, and Implementation Services as a key enabler of his revamped IT infrastructure. "When we decided to purchase the SANs, there was significant professional services involvement in architecting the new storage infrastructure," Boyer says. "Additionally, with our new focus on virtualization, we worked with Dell Services again to assess and design an infrastructure that makes sense for us. Having Dell Services involved helps ensure the success of these projects."

Bank-Fund also turns to Dell Asset Recovery Services (ARS) as a way to improve the process of replacing end-of-life equipment. "We are on a three-year refresh cycle," Boyer explains. "We tend to donate most of our fully depreciated equipment to charity, but when we have hardware that we need to get rid of, there is a lot of synergy in working with Dell Asset

Recovery Services. Typically, Dell ARS ends up buying back our equipment, which is obviously a benefit for us, and they then dispose of it in an environmentally friendly way."

Rounding out the complement of Dell Services, Dell Gold Enterprise Support is there to assist Bank-Fund when the unlikely hiccup does happen. "When something does go wrong, Dell is here within four hours with the new hardware," Boyer explains. "If a system goes down, we call Dell, and they quickly put us in touch with the appropriate person to help resolve the problem. Dell Support is fantastic."

Dell makes Bank-Fund feel like a world power

Boyer is so happy with his relationship with Dell that he considers Dell much more than simply his IT vendor. "Even though Dell is a very large company, and we are more of a small to medium-sized business, Dell treats us like a larger business," says Boyer. "I get frequent contact from local Dell representatives. I get fantastic support from internal Dell sales folks. There were times when high-level Dell executives have been in D.C. and they've specifically put a stop at Bank-Fund on their schedule. We really appreciate that kind of service. Dell is not just a hardware vendor, it is our strategic partner."

Ultimately, the prime benefit of this strategic partnership is that the relationship with Dell helps Boyer do a better job of supporting Bank-Fund members. "To be honest, I don't believe that our members are concerned with what IT systems we're running," he explains. "They just want their financial services to be convenient, secure, and highly available. And that's what Dell helps us deliver. Our experience with Dell makes us comfortable supporting an IT environment that exceeds our members' needs."

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— **Jesse Boyer**, Manager of Information Technology
Bank-Fund Staff Federal Credit Union



HOW IT WORKS

HARDWARE

- Dell™ PowerEdge™ 750, PowerEdge 1650, PowerEdge 1750, PowerEdge 1850, PowerEdge 1855, PowerEdge 1950, PowerEdge 1955, PowerEdge 2600, PowerEdge 2650, PowerEdge 2850, PowerEdge 2950, PowerEdge 6650, and PowerEdge 6750 servers with Intel® Xeon® processors
- Dell PowerVault™ 220S, PowerVault 775N, and PowerVault 136T tape libraries
- Dell/EMC CX500 SANs
- Dell OptiPlex™ GX620 desktops
- Dell Latitude™ D600, Latitude D610, and Latitude D620 notebooks

SOFTWARE

- Red Hat® Enterprise Linux® operating system
- Microsoft® Windows Server® 2003 operating system
- Microsoft® Windows® XP operating system
- Microsoft SQL Server 2000 database software
- Microsoft® Exchange e-mail software
- Microsoft® Systems Management Server
- Microsoft® Operations Manager
- VMware® ESX Server® virtualization software
- Custom financial service applications

SERVICES

- Dell Assessment, Design, and Implementation Services
- Dell Asset Recovery Services
- Dell Gold Enterprise Support Services



Microsoft



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