United States Senate Federal Credit Union Offers Best-in-Class Banking with VMware

INDUSTRY
FINANCIAL SERVICES

LOCATION
ALEXANDRIA, VIRGINIA

KEY CHALLENGES
- Modernize IT to deliver best-in-class financial services with a small IT team
- Reduce the cost, time, and physical space required to support member services
- Bolster application and network security to avoid data breaches
- Enhance employee productivity and innovation while reducing computing costs

SOLUTION
USSFCU implemented VMware hyperconverged infrastructure powered by VMware vSAN™ on Dell hardware using VMware vSphere® Platinum licensing that includes VMware AppDefense™ to protect business-critical applications and coordinate with VMware NSX® Data Center to automate security responses. Remote branches are equipped with vSAN plus ROBO licensing for high-performance storage, and credit union employees access digital workspaces powered by VMware Horizon® and VMware Workspace ONE®.

At the height of the Great Depression in 1935, nine U.S. Senate employees pooled their resources and chartered the United States Senate Federal Credit Union (USSFCU). Nearly 80 years later, USSFCU needed to modernize IT to better serve its customers, including U.S. senators and other government officials and staffers. Faced with aging legacy infrastructure that could no longer keep up with its pace of innovation, USSFCU decided to adopt a software-defined data center approach leveraging hyperconverged infrastructure (HCI) solutions from VMware and Dell.

A financial cooperative designed to help its members achieve financial success, USSFCU serves more than 32,000 members and manages total assets in excess of $800 million. With a private cloud built on VMware vSphere Platinum and VMware vSAN providing cost-effective, all-flash storage at branches, USSFCU can now deliver new applications and services in a more secure, efficient, and quick fashion, while avoiding adding headcount to its small IT team. It's also enhancing application and network security to better protect its customers' financial and personal information. At the same time, USSFCU reduces costs to support branch services and end-user computing while giving employees and customers a better experience.

The challenge

Customers' expectations of financial services organizations have changed dramatically in recent years. They expect to do their banking wherever and whenever it's convenient using mobile technologies and online services. USSFCU wanted to accelerate the introduction of new products and services to help meet its members' evolving needs. But with physical servers providing all the resources for internal staff and customer-facing operations, it was difficult for the credit union to innovate and scale.

"To continue to deliver best-in-class financial services, we needed to scale our operations more efficiently and enable a relatively small IT team to continue to manage everything," says Mark Fournier, systems architect at USSFCU.

The credit union is always looking for new layers of security to protect members' financial and personal information. It knew that moving to software-defined infrastructure would be essential to transforming security.

- Reduces cost to support new, member-facing branch services by 66 percent
- Increases productivity with digital workspaces at 33 percent the cost of desktop PCs
- Continues a tradition of excellent customer service without expanding IT headcount
- Strengthens security to protect members' financial and personal information

"We're a financial institution serving high-profile customers such as U.S. senators and their families," says Fournier. "So we just assume we're under attack all the time. We're constantly working to improve our security posture and stay ahead of the bad guys."

The solution

Over a four-year period, USSFCU gradually virtualized most of its infrastructure, consolidating physical servers onto Dell PowerEdge blade servers running VMware vSphere. Today, the organization operates two active data centers, delivering enterprise services via private cloud. The IT team can easily manage and troubleshoot the environment using VMware vRealize® Operations™ and VMware vRealize Network Insight™ for intelligent operations.

"To compete successfully in the modern financial sector and reduce the cost, time, and physical space required to support new member services, we decided to virtualize on hyperconverged infrastructure," says Fournier. "Our key partners are Dell and VMware, and they have been there the entire way through our digital transformation. The support we get is phenomenal. If we run into a problem, suddenly we have eight people on the phone coordinating to make it go away."

USSFCU recently upgraded to vSphere Platinum, which is based on VMware vSphere 6.7 and includes VMware AppDefense to protect business-critical applications. Installed directly in the vSphere hypervisor, AppDefense monitors running applications for any changes in their intended state. When a potential threat is detected, AppDefense raises the alarm, coordinating with VMware NSX Data Center and vSphere to automate responses.

"VMware has enabled us to layer on other technologies that other vendors in this space wouldn't have been able to offer us, such as AppDefense for application security and NSX for network micro-segmentation," says Fournier. "vSphere Platinum gives us a more secure hypervisor to run our business-critical apps, and having AppDefense integrated directly into vSphere makes it simple for us to manage."

USSFCU also deployed vSAN, a hyperconverged storage solution native to vSphere, plus remote office/branch office (ROBO) licensing for remote offices at its three branch locations. Each branch is equipped with all-flash Dell EMC vSAN Ready Nodes, while ROBO licensing offers per-VM licensing, easy upgrades, and centralized management from within VMware vCenter Server®.

"When we compared vSAN to the competition, one of the things that stood out first and foremost was the extra management complexity that was involved with other solutions such as Nutanix," says Fournier. "vSAN is crazy fast, but it's also easy for us to manage. Another big benefit of vSAN is to be able to pick up any amount of hardware, any type of server system, and put new storage nodes into production without having to worry about high licensing costs. With vSAN, we can cover all our sites for a single fee."

To provide users with easily accessible digital workspaces, USSFCU uses VMware Horizon for virtual desktops along with VMware Workspace ONE to simplify access management. As desktop PCs come off warranty, they will be repurposed as zero-client machines. Any new hardware will be purpose-built zero-client devices, which cost much less and have a longer lifespan than traditional PCs.

"We used to have an old-school VPN for remote access, and everybody hated using it," says Fournier. "With VMware Horizon and Workspace ONE, we have a more secure, cost-effective solution that delivers a vastly improved user experience for our employees."

"Our members rely on us to be innovative. They rely on us to be secure. Through our partnership with VMware and Dell, we're confident we can meet and exceed their expectations."

MARK FOURNIER
SYSTEMS ARCHITECT
UNITED STATES SENATE FEDERAL CREDIT UNION

VMWARE FOOTPRINT

VMware vSphere Platinum 6.7

VMware AppDefense

VMware vSAN 6.7

VMware NSX Data Center

VMware vRealize Network Insight

VMware vRealize Operations

VMware Horizon 7.8

VMware App Volumes™

VMware Workspace ONE

APPLICATIONS VIRTUALIZED

Microsoft Exchange Server, Microsoft SQL Server, Microsoft SharePoint, Microsoft Skype for Business

PLATFORM

Dell PowerEdge

Business results and benefits

By using VMware solutions to drive digital transformation, USSFCU continues an 80-year tradition of excellent customer service. Members can access their data and use financial services wherever they want to, at any convenient time. Extending virtualization to the branches supports a growing number of member-facing initiatives for one-third of the cost of comparable solutions by other vendors.

"Using vSAN, we were able to cut our anticipated costs of equipping our three branches with hyperconverged infrastructure from approximately $350,000 down to less than $120,000, a 66 percent savings," says Fournier.

With more advanced tools in its security toolbox, USSFCU is better able to protect members' financial and personal information, avoiding any data breaches thus far. Virtual desktops improve security as well, keeping data within the private cloud instead of storing it on users' machines. And with the ability to work from home on weekends and during severe weather events, employees are more productive and better able to go the extra mile to serve customers.

"With VMware Horizon and Workspace ONE, we're streamlining not just the delivery of applications but also employee and customer experiences," says Fournier. "We're also reducing our cost to support end-user computing by two-thirds. For a business that's used to replacing one-third of our PCs every year, it doesn't take much more than a year for Horizon to completely pay for itself."

Looking ahead

USSFCU is now implementing vSAN in its core data centers, once again using Dell hardware for performance, reliability, support, and cost efficiency. Once the storage upgrade is complete, USSFCU employees will enjoy much faster performance for email and other business applications, helping them provide even more responsive customer service.

"Our members rely on us to be innovative. They rely on us to be secure. Through our partnership with VMware and Dell, we're confident we can meet and exceed their expectations," says Fournier.