



Fast-growing independent bank yields strong savings in time and money with an all-broadband SD-WAN

First Bank gains 35 percent higher application performance while saving \$1 million annually with the Unity EdgeConnect SD-WAN edge platform

Like so many industries today, banking is driven by technology. Modern bank customers expect 24/7 access to account services from any device they choose. Mortgage and investment customers are looking for fast, efficient turnaround of loan applications with instant updates and easy digital payment options. At a physical branch or ATM, responsive personalized service is a must.

To meet high customer expectations, St. Louis-based First Bank has fully embraced digitalization, building

a hybrid cloud IT infrastructure—a combination of private and public clouds—to run everything from its core banking platform and voice system to mortgage applications and productivity solutions like Microsoft Office 365. Naturally, the bank's wide-area network (WAN) plays a pivotal role in connecting users across its 94 branches and dozens of ATM locations to these critical applications. However, as First Bank has grown, the amount of data traversing the WAN outpaced available bandwidth.



INCREASED
BANDWIDTH
67X



IMPROVED
PERFORMANCE
BY 35%



PROJECTED
\$1 MILLION IN
SAVINGS

Marc Ashworth, First Bank's Senior Vice President of Information Security, explains, "We had a pretty traditional MPLS network. It was not cheap, and because of the high expense, we were limited on bandwidth. Most sites had only a couple of T1 lines providing about 3 Mbps of throughput. That's not a lot when you're trying to push through a couple hundred megabytes of data. It just drowned the T1 lines."



The EdgeConnect SD-WAN edge platform is enabling us to do many things that simply weren't possible before. We'll be saving over \$1 million per year compared to our previous MPLS network.

— Marc Ashworth, Senior Vice President –
Information Security, First Bank

EdgeConnect passes the quality and reliability test

When Ashworth joined the bank in 2017, his team had already been evaluating SD-WAN as a potential solution to the bandwidth problem. But none of the vendors could meet a key requirement: reliably failing over from one circuit to another without dropping a voice call. So, Ashworth consulted [Secure Data](#), a local IT solutions provider that he knew from a previous position, who told him about Silver Peak.

Working with Secure Data, the First Bank team began testing the [Unity EdgeConnect™](#) SD-WAN edge platform. The result? "EdgeConnect was the first product we came across that truly did what it was supposed to do," says Ashworth. "We had our voice system running across two circuits, unplugged one, and we didn't drop the call."

Following the successful test, Ashworth and his team have since deployed 168 EdgeConnect appliances across all 94 branches, dozens of ATM locations, several home offices, and even in the data center of the cloud-based voice provider. Most sites are linked by bonded DSL and broadband circuits, or a pair of broadband circuits with LTE for backup—MPLS is completely gone. The EdgeConnect platform also enabled First Bank to retire its conventional branch routers, leverage the built-in stateful zone-based firewall to secure guest Wi-Fi access at the branches, and service chain with Check Point firewalls to inspect and verify security when accessing applications on either the private or public clouds.

"We consolidated quite a bit of legacy infrastructure at the branch as we rolled out the EdgeConnect appliances," notes Ashworth. "But when it came to the EdgeConnect deployment itself, that only took about 15 minutes per site. We'd just plug it in, centrally apply the business intent overlay, and we were done."



Ashworth adds that the ease of deploying EdgeConnect will help First Bank accelerate branch openings as it continues to expand. "It depends on the availability of circuits, but typically our lead time for bringing a new branch online has gone from about 90 days to a couple weeks since having the SD-WAN."

Boosts application performance and network uptime

With capabilities such as tunnel bonding, [path conditioning](#), quality of service, and [dynamic path control](#), the EdgeConnect SD-WAN edge platform has brought a whole new level of application performance and network uptime to First Bank. Available

bandwidth has soared from 3 Mbps to as much as 200 Mbps at many sites. Ashworth quips that for First Bank employees “it’s so much bandwidth they don’t know what to do with it all.”

Greater bandwidth alone has increased application performance dramatically. In addition, First Bank implemented the optional [Unity Boost™](#) WAN optimization to accelerate performance for things like HTTP traffic, file sharing, and branch backups. Ashworth reports that for backups in particular, Boost is achieving up to 98 percent compression, and for other applications 70 – 80 percent compression. This translates to 35 percent higher application performance on average.

Ashworth advises that one of the biggest benefits has been improved WAN availability, especially for branches where basic circuit quality is not very reliable. “We’ve had some branches that lost both their main circuits and still kept running because they failed over to the LTE backup,” he says. “The people in the branch didn’t even know there was a problem. Maintaining that uptime is essential for our people to do their jobs and serve our clients with the best quality of experience possible.”

Powerful ROI with savings in time and money

Consolidating on EdgeConnect has greatly simplified the WAN edge, saving time and money. Ashworth points out that from an administration standpoint, IT saves a lot of time because there’s no need to worry about additional configurations, updates, or maintenance of separate branch routers and firewalls. Moreover, by centrally managing the SD-WAN

through [Unity Orchestrator™](#), everything from new deployments to firmware updates and network monitoring is easier.

“Overall monitoring and administration is so much easier now than a traditional router-centric model,” Ashworth remarks. “The insights we get through Orchestrator have been really valuable for troubleshooting system or voice issues. It’s definitely freed up time for my team to focus on optimizing each branch instead of maintaining equipment.”

With less edge equipment to own and upgrade, combined with a revamped voice system, Ashworth estimates a 30 – 40 percent return on investment over five years. Even more dramatic, he notes, “We’ll be saving over \$1 million per year compared to our previous MPLS network.”

Looking toward the future, Ashworth sees additional opportunities to benefit from EdgeConnect. For example, deploying the EdgeConnect platform in the bank’s private cloud providers will allow Ashworth to replace expensive private circuits with broadband, cutting monthly expenses another \$10,000 per month per circuit. And with the cloud providers having dual active-active data centers for assured disaster recovery, he can then enable the branches to break out directly to the private clouds, reducing latency by eliminating extra hops through the First Bank data center.

Ashworth concludes, “The EdgeConnect SD-WAN edge platform is enabling us to do many things that simply weren’t possible before.”

For more information on Silver Peak and our solutions, please visit: silver-peak.com



Customer

St. Louis-based **First Bank** is a full-service bank offering deposit and loan accounts, mortgage services, and wealth management for residential and business customers through 94 branch locations across Missouri, Illinois, Kansas, Nebraska, and California. Established in 1910, First Bank has grown to become one of the largest family-owned banks in the U.S. while remaining committed to providing caring, personal service throughout the communities it services, continually striving to make its clients feel like part of the family.

Challenge

Address high cost and bandwidth limitations of MPLS while ensuring quality of service for critical voice system and cloud-based business applications

Solution

Deploy the EdgeConnect SD-WAN edge platform at 168 sites, including all 94 branches and dozens of ATM locations, replacing MPLS with a combination of DSL, broadband and LTE links, retiring branch routers by consolidating on EdgeConnect, service chaining with Check Point to inspect and verify traffic heading to public and private clouds, and implementing the optional Unity Boost WAN optimization performance pack to accelerate key applications and network services

Results

- Increased available bandwidth nearly 67X—from 3 Mbps to 200 Mbps
- Achieved data compression with Boost of 98 percent for backups; up to 80 percent for other applications
- Improved application performance by 35 percent on average
- Projected \$1 million annual savings over previous MPLS network with 30 – 40 percent ROI over five years
- Delivered high quality of service and assured uptime for critical voice system
- Reduced branch deployment time from 90 days to a couple weeks
- Freed IT time to optimize branches by simplifying WAN edge administration



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