



Texas agricultural cooperative elevates quality of member services with Unity EdgeConnect SD-WAN edge platform

Equity Exchange delivers reliable, high-quality network services across rural locations, increasing application performance and business uptime

Farmers understand the forces of nature like few others. Success or failure hinges on timing and the weather. But to maximize yields and improve both efficiency and profitability, farmers also need technology. In the plains of northwest Texas, Oklahoma, and southwest Kansas, many farmers count on their local cooperative, Equity Exchange, for technological support—and much more.

Equity Exchange provides grain storage, agronomy solutions (seed, fertilizer, and crop protection), fuel, crop insurance and marketing assistance, and general supplies for farm, ranch, and home. The cooperative operates 28 facilities, each requiring network connectivity for everything from point-of-sale transactions and grain delivery receipts to digital scales, custom fertilizer blenders, and general business applications for logistics and accounting.



Equity Exchange



ELEVATES QUALITY OF EXPERIENCE



IMPROVED NETWORK UPTIME



INCREASES PRODUCTIVITY

The challenge for Equity Exchange is obtaining reliable network connectivity in the rural, geographically expansive area in which it operates.

With only a single link at most locations, and no way to achieve redundancy using its previous Cisco VPN, any circuit outage or brownout disrupted business. Employees and customers simply had to wait, credit card transactions couldn't be completed, and product deliveries would be held up.



At one location with the worst connectivity, we have a fixed wireless link and LTE connected to EdgeConnect, and our VoIP solution works without a problem. That's something we never thought would be possible before."

— Tobin Randolph, Technology Support,
Equity Exchange

Tobin Randolph, who provides technology support for Equity Exchange, says, "Farmers have very limited windows for operations like planting and harvesting. It's critical for them to have access to the products and services they need when they need them."

Fed up with constant network problems, Randolph and management agreed the cooperative needed a better way to connect its locations.

Choosing a mature SD-WAN solution

SD-WAN initially caught Randolph's attention due to its circuit fail over capability. But he wanted more. In researching SD-WAN vendors, Randolph

established three prime requirements: handle different types of connection technologies with seamless failover, support high-quality VoIP traffic, and provide segmentation for PCI compliance. This quickly narrowed the field to Silver Peak, Viptela, and VeloCloud. Ultimately, Equity Exchange selected the Silver Peak [Unity EdgeConnect™](#) SD-WAN edge platform, with the [Unity Orchestrator™](#) management interface being a key factor in the decision.

"Silver Peak offered a more mature solution," Randolph notes. "The interface is much easier to use and more informative, especially in terms of application flow and traffic analysis. Everything is unified, where with other solutions I had to consider what additional products I'd need for WAN acceleration and monitoring. Silver Peak already had all that."



Overcomes connectivity limitations

Working through partner, [CDW](#), Randolph deployed the EdgeConnect platform at all 28 locations. At larger facilities, EdgeConnect is terminated with two commercial broadband links, while at some remote locations with limited options, the secondary link is LTE. This provides Randolph with the redundant circuits and seamless, sub-millisecond failover he was looking for.

Now, even with connectivity limitations, Randolph could successfully deploy real-time applications like VoIP. "At one location with the worst connectivity, we have a fixed wireless link and LTE connected to EdgeConnect, and our VoIP solution works without a problem. That's something we never thought would be possible before."

Today, with VoIP and SIP trunks at all locations, everyone enjoys high-quality voice calls. “The Silver Peak solution made a world of difference,” Randolph notes. “When customers call in, they often comment about how clear the connection is. It seems so basic, just being able to have a decent phone call, but that was a real challenge for us in the past.”

By taking advantage of capabilities like [path conditioning](#), quality of service, and [dynamic path control](#), within EdgeConnect, the cooperative’s other applications also run faster and more reliably. “Employees can do their work without disruptions. Customer orders go through and get delivered when they’re needed. I rarely get calls anymore about the network being down or slow application performance.”

Business-driven SD-WAN optimizes performance and flexibility

Randolph also takes advantage of the optional [Unity Boost™](#) WAN optimization performance pack to accelerate applications. Performance has improved significantly for the cooperative’s core business applications—logistics, accounting, order processing—which run through terminal services.

“We’ve seen over 90 percent reduction in traffic for our terminal applications using Boost,” Randolph reports. “Responsiveness is much better, giving our employees a much higher quality experience and helping them serve our members more efficiently.”

To guarantee applications get the network resources needed based on business priority, Randolph uses Orchestrator to configure business intent overlays, classifying applications like terminal services as critical, and VoIP as real time. He also configured an overlay to provide public Wi-Fi at its larger facilities, taking advantage of the unified routing interoperability and zone-based stateful firewall within EdgeConnect to

enable the general public to securely and privately access telemedicine services during the COVID-19 pandemic. In addition, Randolph segmented separate zones on the firewall for guest Wi-Fi used by contractors and to isolate credit card transaction data from other network traffic for PCI compliance. Employees can also break out locally to the internet and SaaS applications like Google G Suite.

Creates new options to enhance business efficiency

For Randolph, the capabilities brought by the Silver Peak SD-WAN solution have been eye opening. First, through Orchestrator, Randolph has visibility that never existed before. “The biggest way that Orchestrator has helped me is I can see application traffic across the whole network, and can troubleshoot issues more quickly and accurately. I can see what traffic is blocked by the firewall or not, and make necessary changes. That’s been a huge time-saver for me.”

There have been broader insights as well. Because the old WAN was so slow and unreliable, Randolph placed as many IT services as possible out in the local facilities to avoid disruption in case an internet link went down. Now, seeing the uptime and performance that’s possible with the Silver Peak SD-WAN solution, he is rethinking his previous network design strategy.

“I can bring file storage and print services back to the data center, and still be able to deliver the performance our people require,” Randolph says. “Although we have not done much in the cloud, the Silver Peak SD-WAN solution now gives us that option. There are many new possibilities that have opened up to improve our services for employees and members as a result of having SD-WAN.”

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



Customer

Equity Exchange is a member-owned cooperative serving farmers and ranchers across Texas, Oklahoma, and Kansas. Founded in 1919 in Perryton, TX, the organization has grown to include 25 grain facilities, 13 retail agronomy centers, 18 24-hour fuel stations, and a 30,000 square foot distribution center to provide specific products and services for both customers and other locations across the region.

Challenge

Equity Exchange has 28 facilities within broad rural area with limited options for network connectivity. With only a single, unreliable internet link at each location connecting via Cisco VPN to business applications running in the cooperative's central data center, any circuit outage or brownout resulted in downtime. Customers could not complete purchase transactions and employees could not do their jobs. The cooperative was also hindered from introducing new services, like VoIP, to improve business efficiency and quality of service to its members.

Solution

Equity Exchange deployed the EdgeConnect platform at all 28 locations, connecting larger facilities with two commercial broadband links, and using LTE as the secondary link at some remote locations with limited options. The cooperative uses Boost to accelerate core business applications accessed through terminal services, uses business intent overlays in

combination with security zones to optimize business performance and provide secure traffic segmentation for PCI compliance and guest Wi-Fi.

Results

- Dramatically improves quality of experience for employees and customers using business applications and VoIP communications
- Increases employee productivity by eliminating site downtime due to circuit outages with seamless sub-millisecond circuit failover
- Assures PCI compliance with secure traffic segmentation enabled by zone-based stateful firewall
- Accelerates application performance, reducing terminal services traffic by 90 percent with deduplication from Boost
- Helps provide added public services for securely connecting to telemedicine applications during the COVID-19 pandemic
- Streamlines access to SaaS applications like Google G Suite with local internet breakout at each location
- Improves network visibility and simplifies troubleshooting with centralized SD-WAN monitoring
- Creates new options to adopt cloud and other technologies to improve IT efficiency



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