



AT A GLANCE

Belonging Never Felt Better[®]



Website: coastccu.org
Industry: Financial Services
Location: Eureka, CA
Type: Non-Profit
Founded: 1950

Challenges

- Geographically dispersed locations throughout three counties, with long-haul Internet infrastructure
- Outages and loss of existing WAN connectivity in locations
- Complex mesh network built on multiple providers utilizing Internet, MPLS, Microwave, Broadband, satellite and other circuits on copper/fiber/radiowave
- Business continuity issues caused by natural disasters
- Need to fulfill customer demand for 24/7 access to services

Product

- AireSpring Platinum SD-WAN Solution

CUSTOMER

Coast Central Credit Union (CCCU) serves members throughout the California Counties of Humboldt, Del Norte and Trinity. The area is largely rural, located along the far “North Coast” of California. At \$1.4 billion in assets, Coast Central Credit Union is a key part of the communities it serves, with a total of more than 68,000 members, making it the biggest locally-owned financial institution. There are 11 locations in eight cities across the three counties, with two offices providing extended hours evenings and weekends.

A high percentage of those who live and work in these counties depend on Coast Central for financial services. Internet connectivity is a vital lifeline for Coast Central Credit Union and its thousands of members. Coast Central needs to keep their Wide Area Network (WAN) operating in everyday use and especially in times of extreme challenge such as during the natural disasters that have occurred in Northern California.

CHALLENGE

For many years, the North Coast community has had challenges with Internet service. Due to the remote location, most of the Internet infrastructure is located out of the area, depending on a handful of long-haul fiber connections to hubs further south that regularly go down. The result is a loss of Internet service for most of the community, as well as a loss of WAN connectivity to one or more Coast Central locations. One office is a full three-hour drive away from the main office often requiring dispatch of repair support technicians. There are numerous external factors that Coast Central cannot control, and these factors may affect business on a daily basis.

The Tubbs Fire of 2017 caused terrible devastation to Santa Rosa, CA and the surrounding communities. The fire burned 36,000 acres and claimed 22 lives as it tore through Santa Rosa, destroying Internet infrastructure for at least one major carrier, and requiring weeks to restore full service. Portions of the North Coast were without their primary Internet service for several days and Coast Central was impacted by the loss of some circuits. They urgently needed an affordable, redundant solution that would ensure business continuity and support the wide diversity of carriers, so that even if one or more carriers were disabled, all locations could keep working seamlessly.

Coast Central members expect their services to be available at all times. The staff was focused on identifying a partner willing to work through their specific challenges, including expanding the existing network to include a unique mix of circuits over a private MPLS network and multiple carriers utilizing Microwave, satellite, cellular, coax and fiber. As a seven-day credit union with late-night hours, they needed a willing partner who could deploy SD-WAN with a minimum of impact, allowing uninterrupted service to members.

“Increased circuits have greatly increased bandwidth for our back-office operations. We have backups between locations, a primary and secondary data center within our network, and off-site backups and tertiary data center..”

Ed Christians
VP of Information Systems, Coast Central Credit Union

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Results

- SD-WAN aggregates all circuits (MPLS, Microwave, Internet and more) into one big pipe at each branch, providing increased bandwidth and redundancy
- SD-WAN failover provides hitless 2ms failover/failback (no IP phone calls lost, no apps affected)
- Locations stay connected even when an individual carrier or circuit is down
- SD-WAN's traffic prioritization and shaping ensures critical apps operate at peak performance
- SD-WAN traffic backhauling allows granular Internet
- Centralization to HQ with failover to secondary and even tertiary sites
- SD-WAN IP Mobility provides public Internet IPs delivered via SD-WAN that never change, even when a carrier or a circuit goes down
- SD-WAN micro-segmentation enhances security by separating corporate, Internet, cloud services, voice, digital signage, point of sale systems, guest Wi-Fi and other traffic
- CCCU can utilize additional new, cloud-based services via AireSpring Managed Connectivity
- CCCU achieves greater focus on business development and growth

SOLUTION

Coast Central consulted with the telecom experts at Top Speed Data Communications. They recommended AireSpring's Platinum SD-WAN Solution based on the VMware NSX® SD-WAN by VeloCloud™ platform as a way to ensure that WAN connections would stay strong, even if selected carriers became unavailable. AireSpring agreed to help Coast Central support the existing carrier and expand service to include a wide variety of carriers and circuit types available in each of the eight cities and 11 remote locations, allowing Coast Central to mesh many different carriers into one dependable, cohesive WAN network.

AireSpring worked closely with Coast Central's IT Team led by Ed Christians, VP of Information Systems, to untangle the pre-existing WAN and build the new Platinum SD-WAN system, while maintaining all operations. AireSpring dispatched on-site technicians working early hours or late nights as needed to more precisely calibrate the boxes for Coast Central's specific needs.

Before completing the Edge deployments, it was common for one or more offices to lose connectivity each month, but after deployment, failures are rare and limited to offices lacking diverse carriers. For most offices, even when there are circuit failures, the branches stay connected and Coast Central has reported a dramatic decrease in outages.

The AireSpring Platinum SD-WAN solution has come at an especially useful time, as Coast Central is undergoing a core conversion of the underlying software that runs the credit union. There is no longer a concern that the Internet connection will crash while training is underway with staff at remote branches. AireSpring's SD-WAN traffic prioritization and shaping help to keep production working at all times.

The organization was pleasantly surprised to find that the increased circuits have improved bandwidth availability for back-office operations, at the same time freeing up resources previously used for network issues. Now, there is room for a greater focus on business development and other growth areas.

The AireSpring Platinum SD-WAN solution utilizes all available bandwidth, yielding dramatically reduced backup times and allowing site-to-site replication of key disaster recovery systems. The new system leads to much more complete preparation for future natural disasters or other sources of interference. The added bandwidth capability further allows Coast Central Credit Union to utilize new, cloud-based services that were not previously considered dependable.

"...Now that we have so much more bandwidth, we can get jobs completed more efficiently, add more content and even have some additional cloud-related services—something we could never have before."

Ed Christians
VP of Information Systems, Coast Central Credit Union
