

C&S optimizes efficiency and productivity of grocery supply chain with business-driven EdgeConnect SD-WAN Solutions



Customer Profile

C&S Wholesale Grocers is the largest wholesale grocery supply company in the U.S. and the industry leader in supply chain innovation. C&S supplies more than 7,900 independent supermarkets, chain stores, military bases, and institutions with over 138,000 different products.

Vertical:

Services

Location: Keene, New Hampshire, United States

Customer size: Approximately 17,000 employees across 50 distribution centers in 16 states.

Use Case

Boost business service efficiency and employee productivity with a cloud strategy enabled by a resilient, secure, high-performance SD-WAN that accelerates remote access and supply chain intelligence.

Requirements

- Improve performance and availability for SaaS applications and cloud services.
- Provide predictable network access to employees and automate failover process.
- Deliver high quality of experience for cloud-based voice and video communications.

Solution

- Aruba EdgeConnect SD-WAN
- Aruba Boost
- Aruba Orchestrator

Outcomes

- Improves employee productivity and quality of experience by boosting SaaS and data center application performance by 60%.
- Elevates quality of customer services by eliminating network connectivity problems and downtime due to circuit outages.
- Assures business uptime with automated, sub-millisecond circuit failover, delivering high quality of service to C&S customers.

Grocery stores across the U.S. rely on C&S Wholesale Grocers to optimize supplies, ensuring freshness and availability to meet consumer demands. So when its legacy MPLS-based wide-area network experienced unpredictable periods of downtime, C&S looked for a more reliable network solution.

Leonard Bernstein, senior director of infrastructure and service delivery for C&S, explains, "The market has changed so dramatically that every second of downtime causes risk to our customers. Volume is growing, and customers need real-time information. We can no longer sustain a circuit outage of any length."

Demand for Data Drives WAN Transformation

For American grocery stores and supermarkets, keeping shelves stocked and the produce section filled with just the right fruits and vegetables takes more than having a well-supplied warehouse. It takes data. And that's exactly what C&S Wholesale Grocers delivers.

Founded in 1918, C&S has a storied history of innovation in the grocery supply industry, and today is an industry leader in business intelligence and automation. To help its customers know exactly what products to order, and when, C&S relies on sophisticated data analytics applications running in two east-coast data centers connected to 60 warehouses across its WAN.

C&S relied primarily on MPLS, with backup to dedicated internet access (DIA) links, and in some cases 4G LTE. However, these backup circuits stood mostly idle, limiting their value. Worse, failing over network circuits was a tedious, manual effort that often disrupted access to vital grocery supply data.

Improving Network Resilience and Efficiency

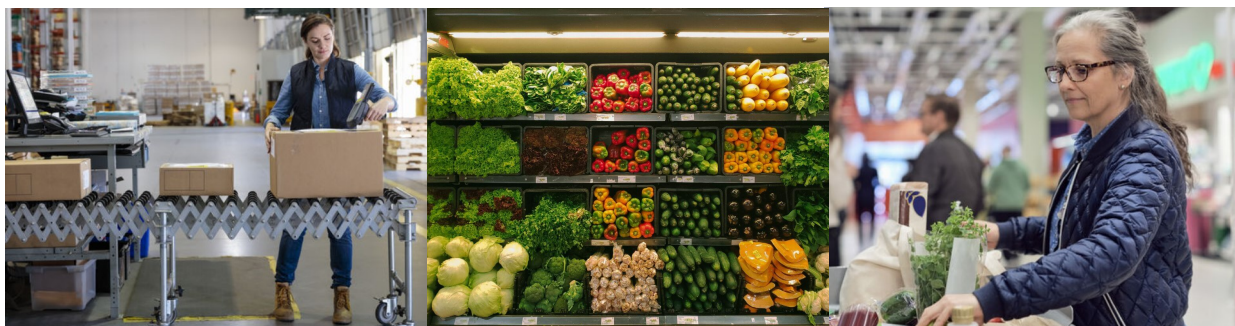
To improve both resilience and efficiency of the network, Bernstein saw SD-WAN as the right solution. "Our big challenge was to make better use of existing circuits," Bernstein notes. "We wanted to remove the human element and automate more, leveraging intelligence to elevate network services and seamlessly deal with circuit faults without impacting customers. This all pointed to SD-WAN."

After evaluating several SD-WAN vendors, Bernstein and vice president of infrastructure, Philippe Bourdon, selected the Aruba EdgeConnect SD-WAN from Aruba, a Hewlett Packard Enterprise company. Key to this decision was an in-depth return on investment (ROI) analysis conducted by Aruba.

The ROI analysis quantified the dramatic positive impact of an SD-WAN built on the EdgeConnect platform. For example, by reducing dependence on MPLS, maximizing bandwidth utilization, and improving network resilience, the ROI analysis projected annual savings in telecommunication expenses of up to 60 percent.



C&S
Wholesale
Grocers



EdgeConnect Platform Optimizes Network Resources

C&S deployed the EdgeConnect platform in its two data centers and is rolling it out to all 60 warehouses. Now, where EdgeConnect is deployed, C&S intelligently uses all available circuits simultaneously, optimizing network resilience and performance, as well as maximizing the value of its investments in transport technologies.

Additionally, Bernstein and his team implemented the optional Aruba Boost WAN optimization, available on the EdgeConnect platform, to efficiently handle file transfers and reduce bandwidth consumption through deduplication and compression. Meets business and application SLAs

To meet application performance objectives and business service-level agreements, Bernstein and his team built company-specific application overlays using the Aruba Orchestrator management console. Each overlay ensures that a specific application class is guaranteed the network resources it needs based on business priority.

For example, to assure end users of getting the highest quality of experience for voice and video calls, the cloud-based RingCentral application is classified as "Real Time" to give it top priority on the SD-WAN. Mainframe applications, Citrix services, and other mission-critical applications are classified as "Critical," while applications such as Microsoft Office 365 are classified as "Low." SD-WAN, routing, and security on a unified platform

Aruba EdgeConnect provides SD-WAN, routing interoperability, and stateful zone-based firewall in a centrally managed platform, allowing C&S to consolidate the WAN edge, retiring its traditional routers and firewalls.

Bernstein says, "Our legacy hardware lacked the intelligence for any sophisticated routing. We'd have to create elaborate scripts to do the kind of routing EdgeConnect does out of the box."

The built-in routing intelligence and security in EdgeConnect means that C&S warehouses can now break out locally to trusted SaaS and cloud applications instead of backhauling to the data centers as in the past. C&S also takes advantage of the strong integration between EdgeConnect and Zscaler cloud-delivered security services to apply additional inspection of internet-bound traffic.

Enables Strategic Cloud Initiatives

The performance, reliability, and security of the Aruba SD-WAN proved instrumental in enabling C&S to adopt cloud solutions like RingCentral, as well as a growing number of SaaS applications, including Microsoft Office 365.

Bernstein explains, "We wanted to collapse six disparate phone systems and various collaboration apps into a unified cloud solution, but we needed a network that could support it. EdgeConnect not only brought the SD-WAN capabilities to enable our cloud strategy, but also provides strong integration with RingCentral, which solidified our decision."

Higher team productivity and service quality

With reliable, high-performance network access to applications and grocery supply data across the business, C&S enables its teams to work more productively and deliver the highest quality of service to customers.

In fact, thanks to optimal utilization of all available bandwidth and advanced SD-WAN capabilities, such as path conditioning and dynamic path control, C&S has calculated a 60 percent performance improvement for users accessing applications in the cloud and the data centers. Provides an Enhanced Work Experience

Another prime benefit for C&S is increased WAN uptime and resilience. With an SD-WAN built on EdgeConnect, circuit brownouts or outages no longer disrupt productivity or customer services.

"Our approach is to implement three different types of technology and use SD-WAN to achieve a multiplier effect on our investments," Bernstein says. "EdgeConnect provides the intelligence to aggregate bandwidth across MPLS, DIA, and 4G LTE. SD-WAN handles 4G LTE just fine. And we've also seen the SD-WAN automatically self-heal when issues happen on the MPLS or DIA circuits."

Bernstein adds, "We've taken the warehouses from suboptimal performance to an enhanced work experience, providing employees more efficient access to applications in the data center and the cloud."

Biggest business impact is happier customers

Ultimately, what does an intelligent, efficient SD-WAN mean to IT and C&S as a business? For Bernstein and his department, the benefits of SD-WAN come back as increased engineering resource capacity.

"Instead of working on an outage at a warehouse, or trying to figure out why a route to a certain path is not working, my engineers are now available to focus on projects that are more strategic to the business," Bernstein says.

He concludes, "The biggest impact on the business is happier customers. Rather than dealing with problems every day, like slow logins or poor internet connectivity, employees are able to just do their jobs and provide our customers with the best service possible."