

MERGING MULTIPLE NETWORKS WHILE OPTIMIZING FOR CLOUD SERVICES AND APPLICATIONS



INDUSTRY

WHOLESALE DISTRIBUTION

HEADQUARTERS

WOOD DALE, IL

CHALLENGES

- Lack of bandwidth to support business requirements
- Dependence on unresponsive third-party to manage network
- Costly MPLS connections with significant lead time to make any changes

RESULTS

- Enabling shift to cloud applications and services
- Quickly deploy branches wherever, whenever
- Complete network and application visibility
- Secure credit card transactions
- Ability to quickly implement service change
- Significant cost savings – several hundred thousand dollars per year

Problem Situation

All Holdings, Inc. (AHI) is growing in scale, expanding its footprint in the United States. Given the challenge of operating All Tile and Carpet Cushions & Supplies, the organization was under pressure to integrate each individual company's networks and platforms, speed time to market, and consider an infrastructure that would allow it to scale to meet growing customer needs.

With 25 locations including its headquarters, and a desire to grow that number, AHI knew that its reliance on the legacy network would impede its ability to achieve this corporate goal and put a significant burden on the IT team. Additionally, the two organizations needed to combine platforms and infrastructures to eliminate unneeded redundancy. For example, each organization had its own ERP system, residing in different locations. Servers were located at various locations, requiring a lot of unnecessary network traversal to transmit data. The goal was to combine the ERP systems and datacenters, and co-locate all servers into a single facility to simplify all maintenance and transmission requirements.

Common issues with the legacy network included reliance on a costly MPLS that offered a maximum 3Mbps connection speed. With only a single connection at each office, outages were a regular occurrence, impeding the company's ability to do business. The lack of real-time visibility into network activity or application performance was a significant source of frustration.

MPLS was causing significant impediments to AHI business operations, limiting access to cloud applications and was creating a bottleneck in the ability to rapidly open new branches. MPLS requires dedicated lines to be run to the given location and the time to install it was around three months. The time to have those lines operational and integrated with the rest of the organization was not scalable. Additionally, it offered no failover which was potentially dangerous if any part of the network went down, which it often did.

To merge the two business platforms and prepare for any future expansion, AHI began to explore solutions that would help to meet network goals and provide a dynamic, agile, and flexible infrastructure. Solution criteria included:

- Ease of implementation
- Redundancy for business continuity
- Interconnect all branches and a central datacenter
- Complete the network integration in a 60 to 90 day time period

“Businesses today need to move at a rapid pace, thinking in terms of days vs. months. With SD-WAN, we’re now able to move at that speed and businesses who can’t should be nervous about their future.”

JULY CANO
IT MANAGER, ALL HOLDINGS, INC.

“Before we moved to SD-WAN, we relied on branch managers to alert us of any outages. But now, we are immediately alerted of any network problems and can respond before the business is impacted.”

CHRIS CATALANO
NETWORK LEAD, ALL HOLDINGS, INC.

Solution Selection and Implementation: Coevolve and VMware SD-WAN by VeloCloud

AHI’s legacy infrastructure was maintained by a third-party fully managed solution provider that provided all connections and management but it left AHI with little flexibility and network visibility. Support was also an issue as it was not dependable: it was difficult to find someone to handle the issue, and each group that was responsible for specific areas of the network handled things differently than others. To implement the organizational and network integration AHI required would have taken at least four months, be extremely costly and would still not afford AHI the level of visibility and control it desired.

Coevolve, an independent provider of managed SD-WAN solutions and consulting services, was engaged to help AHI achieve its integration and collective network goals. Coevolve turned to VMware SD-WAN™ by VeloCloud®, which included full access to all VMware SD-WAN Gateways, VMware SD-WAN Edges at each branch office for the connection to the cloud, and the VMware SD-WAN Orchestrator for full network visibility and centralized management.

The integration was a multi-stage process due to the embedded nature of MPLS and to the services to which it was tightly integrated. Voice and faxing were a challenge to migrate away from MPLS. To help remedy the situation, AHI decided to shift to a full VoIP platform, which was much easier to deploy with SD-WAN.

The majority of branch locations were shifted from MPLS to using broadband Internet through cable, and in some instances, DSL. A few offices also used fiber as the primary connection. As a secondary link 4G USB devices were deployed at each branch for failover. To ensure that the company did not suffer any downtime during this migration, SD-WAN was deployed alongside the existing network and when connections were confirmed, MPLS was removed.

In all, the full integration of the two organizations and migration of all network branches from MPLS to SD-WAN took a matter of weeks, and most of that time was due to travel time required for network engineers. With all locations connected via optimized broadband links load balanced and managed with SD-WAN, the network greatly increased its bandwidth capabilities and the speed at which that data would be transmitted at a much lower cost. AHI no longer had to worry about whether additional technology additions or changes to services and applications would affect the network because SD-WAN provided a future-proof platform that was robust, efficient, and flexible to meet its needs.

Enabling Shift to Cloud Applications and Services

AHI was using locally-hosted applications or backhauling data across the MPLS to the datacenter or ERP system to conduct business and communications. However, the speed of business was accelerating and the low bandwidth available with MPLS was slowing the organization’s agility and responsiveness.

With the shift to SD-WAN, AHI now had a secure, fast connection to all branches, enabling the ability to move more services to the cloud. AHI maximized that ability by migrating all network users to Office 365, transitioning from a plain old telephone system (POTS) to VoIP, as well as shifting all fax lines to the cloud. AHI also employs the use of in-branch cameras and videos and uses cloud-based services to manage both the devices and media. If it had to rely on MPLS to transmit and manage this high volume of traffic, the entire network would be constantly bogged down.

“It was a very easy decision to approve the project given the magnitude of the savings. After implementation, the results turned out to be even better than expected on multiple fronts. Partnering with Coevolve made this journey tremendously easy for us.”

JOHN WELCH
CFO, ALL HOLDINGS, INC.

Quickly Deploy Branches Wherever, Whenever

Opening new branches once required an in-depth analysis of the availability of infrastructure that would support MPLS connections. However, SD-WAN eliminated those concerns or need to do a deep analysis of connectivity because the platform can be deployed quickly at any location, with any available connection.

Complete Network Visibility

As each retail branch and office location had a VMware SD-WAN Edge installed that connects each site to one another and to the centralized VMware SD-WAN Orchestrator, the IT team has a ‘single pane of glass’ visibility into all link performance, application activity, and network stability. All problems are identified quickly and easily, alerts and emails are issued to relevant team members for action, and remediation is performed remotely. Root cause is easy to identify, greatly simplifying troubleshooting. Additionally, data and analytics on application and network performance is easy to derive and provide to management.

With the legacy network, AHI’s IT team often did not know of problems on the network until the branch manager would report an outage or connection issues. With the VMware SD-WAN solution, the critical traffic seamlessly starts to use the 4G link at the branch, and AHI is proactively made aware of any outages.

For example, following the implementation of SD-WAN and based on the flexibility provided by the solution, the team was able to locate and identify an additional network circuit at headquarters. Within an hour, the team at AHI was able to configure it for production traffic, further increasing the resilience and the bandwidth of the solution.

Secure Transactions and PCI Traffic

All branch locations are equipped with point of sale (POS) devices. With SD-WAN, not only is AHI able to guarantee constant uptime for the network, it is also able to secure PCI traffic from regular branch traffic. This enables AHI to prioritize its PCI traffic over non-critical data and ensure that each branch is transaction-ready and secure at all times.

Significant Cost Savings

The shift to SD-WAN resulted in significant cost-savings for AHI. By migrating away from MPLS and its previous service provider, AHI was able to save hundreds of thousands of dollars per year. Included in this was the lower cost of broadband links that it was able to utilize, a proactive management platform, and full realization of the benefits afforded by the cloud.

