Case Study

Improving routing and QoS for nineteen connected locations.

SD-WAN for Ware Malcomb.
About Ware Malcomb

Established in 1972, Ware Malcomb is an international design firm providing planning, architecture, interior design, branding and civil engineering services to commercial real estate and corporate clients. With 22 office locations throughout the United States, Canada, Mexico and Panama, the firm specializes in the design of commercial office, corporate, industrial, science & technology, healthcare, retail, auto, public/educational facilities and renovation projects. Ware Malcomb was among the top 25 architecture/engineering firms in Building Design+Construction magazine’s 2016 Giants 300 ranking and the top 40 interior design firms in Interior Design magazine's 2017 Top 100 Giants.
Executive Summary

Ware Malcomb is a network of Architects, Civil engineers and Designers spread around the United States, Canada, Mexico and Panama. Collaborating as one team and applying an integrated approach to their projects, Ware Malcomb provides effective communication to be able to increase accuracy, quality and efficiency for their clients.

A few years ago, Ware Malcomb moved their design software to the Cloud and now is using small-business grade Internet connections and IPSEC VPN tunnels for its locations. For each new location opened, a new firewall and VPN is built which requires for the routes and subnet to be configured and all other firewalls’ routes to be updated. Because of this challenge, the quality of service (QoS) of their telephony system and other real-time traffic didn’t meet company’s expectation.

The first attempt at implementing an SD-WAN solution included Cisco Meraki which helped them solve some routing complications. The call quality issues remained. The company has experienced lost packets, jitter and delays on the line. To resolve those issues, Ware Malcomb implemented traffic shaping and VLANs, although these efforts didn't result in definitive positive changes.

To be able to gain visibility over applications traffic and identify WAN issues, LANtelligence Technical Solutions Engineers recommended the VeloCloud SD-WAN which has the same ease of deployment but offers a deeper insight to what is happening at each location. VeloCloud SD-WAN automatically recognizes the applications, allows prioritizing them and steers the traffic down the best performing link automatically in real-time. In the event both links were not performing as needed the VeloCloud would send the traffic down both links.

For the testing purposes, we implemented VeloCloud SD-WAN in the location that struggled the most with the QoS and saw the immediate improvement in voice traffic quality. Within days there was enough information about the circuits to be able to go back in time to a specific call and see the circuit degradation that caused the call quality issue. More locations were rolled out after the success of the pilot and the rollout to all locations is due to be completed in January 2018.

The VeloCloud SD-WAN helped identify two firewalls that were underperforming and needed to be replaced. It also helped identify some needed redundancy changes and helped identify a wiring issue at another location. The VeloCloud solution gave Ware Malcomb the level of control over their network that allows them to have high QoS without unnecessary additional expenses.

Challenges:

• Network design doesn’t allow for a quick and seamless deployment of new locations.
• A lot of complexity and a lack of visibility throughout the network made troubleshooting difficult

Results:

• Immediate QoS improvement
• Increased network performance and visibility
• Elimination of management and troubleshooting complexity
VeloCloud SD-WAN

Symplyf Branch Network
Provision branch offices faster with automated zero-touch deployment, simplified configuration, orchestration and on-going monitoring with centralized troubleshooting tools. Simplify branch infrastructure with the ability to insert network services on the branch edge, in the cloud or in the regional and enterprise data centers.

Deliver Branch Agility
Enable multiple links, devices and services to coexist and interoperate with incumbent solutions and make the branch agile. APIs enable integration into various management and reporting systems deployed by enterprises today.

Optimize Application Performance
Optimize application performance over Hybrid or Internet links with direct, secure access to enterprise and cloud applications. SD-WAN provides consolidated monitoring and visibility across multiple WAN links and service providers.

Reduce Costs
Deliver Hybrid WAN with ease and enable branch offices with ordinary broadband as enterprise-grade WAN. Reduce hardware-delivery costs by choosing from deployment options such as virtual-machine on a commercial-off-the-shelf (COTS) device, virtual machine on an existing x86-based router or a purpose-built VeloCloud Edge device.