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SD-WAN™

INDUSTRY
Financial and insurance services

NUMBER OF EMPLOYEES
30,000+

KEY CHALLENGES
- The company's business model relied on home-based service representatives
- Bandwidth and network access in employees' homes could be unpredictable, making it difficult to serve customers
- COVID-19 caused even more employees to work-at-home, making existing problems more widespread

BUSINESS RESULTS
- With VMware SD-WAN, quality scores for voice and video skyrocketed
- Before COVID-19, the company quickly deployed 5,000 work-at-home sites in 32 days
- In March 2020 VMware and the company delivered and deployed 8,830 new VMware SD-WAN Edges within 10 business days, keeping a new cohort of work-at-home employees productive and connected

Ready to Serve the Community Using SD-WAN

With a workforce of over 30,000 US-based employees, this company needed a dependable and accessible network platform. This became even more critical as the COVID-19 response required non-essential industries to shift to a work-from-home model for their employees.

The company began working with VMware and QOS Networks in 2018. At the time, the company did not use branch offices to serve customers. Instead, it relied on a large team of service representatives to connect with customers and ensure their needs were satisfied. The service representatives relied heavily on remote access to the data center, viewing customer records through regular home broadband and unified communications as a service (UCaaS) platforms for voice and video calls.

In 2018, about 20 percent of the company's workforce was working from home. To optimize productivity and connectivity, they embarked on a project to upgrade the bandwidth in service representatives' homes and implemented software-defined wide area network (SD-WAN) at the same time. The company chose VMware SD-WAN™ and QOS Networks for this deployment.

Getting SD-WAN out to the masses

Before SD-WAN, any network change required networking managers to manually script the changes. This was a cumbersome process that lacked scalability. For example, migrating head-ends was limited to 10 a day. With over 2,500 head-ends, this process would take 250 days. In addition, there was no guarantee that all the changes would be implemented correctly.

VMware SD-WAN introduced automation and visibility, allowing deployment to happen quickly and efficiently. QOS Networks provisioned each of the VMware SD-WAN Edges ahead of time with specific work-from-home templates, tagged each asset, then shipped them to users' homes. Using zero touch provisioning, home users could easily install the VMware SD-WAN Edge themselves.

Each device automatically connected to the cloud-based central management tool, the VMware SD-WAN Orchestrator, immediately connecting the service representative to the corporate network. Using the VMware SD-WAN Orchestrator, network managers saw the individual VMware SD-WAN Edges activated and could troubleshoot issues from the company's headquarters without having to go onsite.

Even better was the speed of this transition. **Within 32 days, the teams deployed 5,000 sites**, each one in a service representative's home office. The vastly improved bandwidth supported both voice and video calls, direct access to customer records that were housed in various data centers, and online training.

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QOS NETWORKS

The results were almost instant. Service representatives who may have had issues with voice calls before the transition no longer had problems. Using VMware SD-WAN's proprietary Dynamic Multipath Optimization™ (DMPO) technology that prioritizes voice and video calls over other network traffic, significant packet loss would have to occur before any disruption would be noticed.

Figure 1 shows the improvements in both voice and video calls over a single link using VMware SD-WAN. The VeloCloud Quality Score (VQS) rates an application's quality of experience (QoE) that a network can deliver for a period of time. The quality score for video without VMware SD-WAN was 5.67 out of 10. Using VMware SD-WAN, it improved to 9.85. Voice quality scores reached an incredible 9.89.

FIGURE 1

Network support cases from service representatives declined significantly as VMware SD-WAN was rolled out to each home office. Figure 2 shows that support cases (green line) declined as VMware SD-WAN deployments (blue line) increased.

FIGURE 2

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COVID-19 forces rapid change

In March of 2020, as COVID-19 spread across the United States, the company knew it needed to move quickly to continue to serve its member community with the same level of service they were accustomed to in a pre-COVID-19 world. This required shifting all service representatives and personnel to a work-from-home model.

Working again with VMware SD-WAN and QOS Networks, the company placed an order for 9,700 VMware SD-WAN Edges for their new work-from-home representatives. Within 10 business days 8,830 devices were delivered and deployed, and they were visible and accessible in the VMware SD-WAN Orchestrator.

As the business climate changed rapidly, VMware SD-WAN remained a predictable and dependable solution for this company as they found new ways to empower their employees and serve their customers.

For more information about VMware SD-WAN, visit *www.sdwan.vmware.com*.