Ensure Service Continuity Under Severe Traffic Loads

InSpeed
NETWORKS

CHALLENGE

Mid-sized industry company C&M Industries runs payroll for its 250 employees semi-monthly. To manage the company's finances, the C&M Accounting Department uses SaaS-based solutions, including QuickBooks Online and online banking. When those SaaS solutions process payroll for hundreds of employees, the traffic load on the company's low-bandwidth networks is so severe that some VoIP calls become unintelligible and other calls drop entirely.

It's not the situation any IT organization wants to be in: the applications running payroll literally bring other parts of the business to a halt. Clearly, the company needed a solution that would support its SaaS solutions—which, aside from their network traffic load, were clearly meeting the company's needs—while also accommodating the company's VoIP system and other business-critical applications..

Part of the problem was the limited bandwidth available to C&M Industries.

The company's headquarters are in an industrial area of Chesapeake, Virginia, where 10 VoIP lines delivered by an on-premises ShoreTel system. A Cox Communications 15Mbps x 5Mbps network cable connects headquarters to the Internet. These network speeds—slower than the speeds available in many homes across the U.S.—are the fastest available in the neighborhood where C&M is headquartered.

A nearby branch office houses additional employees, who share 10 ShoreTel VoIP phones. That office connects to the Internet over a 30Mbps x 10Mbps cable—faster than the headquarters, but still not remarkably fast for a business connection.

The company needed a network solution for ensuring that call quality would be preserved even when financial applications were putting severe traffic loads on the network. Upgrading to a more high-bandwidth network connection simply wasn't possible.

The company tried running their VoIP network over a VPN between offices, but call quality suffered. Employees reported the performance was worse than a bad cell phone call.

APPLICATION

High Quality Voice for Industrial Sites & Offices

ABOUT THE CLIENT

C&M Industries is a consortium of companies providing environmental services.

"Browsing and Internet traffic seems a lot faster now. Did you upgrade our network speed?"

Bill Remley
Controller

A Private VPN solution from their carrier didn't provide traffic shaping or prioritization for VoIP. The company was reluctant to invest in a solution that promised general improvements without guaranteeing that the VoIP call quality would improve.

SOLUTION

The company's ShoreTel representative, Jeff Wolfe, found the solution: InSpeed Quality Service.

InSpeed Quality Service (IQS) is the first and only SD-WAN solution purpose built to make voice, videoconferencing and cloud-based applications work as promised over every WAN connection, all the time. IQS delivers high quality secure business communications over commodity Internet connections — enabling organizations to realize the promise of high-quality broadband without the expense of MPLS or other private circuits.

Designed for rapid deployment and ease of use, IQS comprises a proprietary cloud element, a small on-premises network appliance and a portal. Installed in-line with a site's commodity Internet WAN connection, the InSpeed Network Appliance tunnels all of the traffic from the site over a secure VPN connection to InSpeed's Cloud Instance. IQS shapes the traffic entering and exiting a site, prioritizing interactive traffic (UDP) over ordinary Internet traffic (TCP), ensuring that the important packets (voice and videoconferencing) go first. Additionally, IQS manages bandwidth utilization end-to-end, which minimizes Buffer bloat and reduces congestion for all applications.

Wolfe installed InSpeed Network Appliances in C&M Industries' offices and configured connections to an InSpeed Cloud Instance in the portal. No other change was made to the company's networks. The company continued leasing its low-bandwidth networks, and its ShoreTel VoIP systems and other key pieces of equipment remained in place.

RESULTS

Once the InSpeed solution was deployed, VoIP call quality improved and calls no longer dropped, even when the Accounting Department ran the same large payroll batches it had run before. Severe network loads no longer bring other company operations to a halt.

Bill Remley, the company's controller, was surprised. "Browsing and other Internet functions are suddenly a lot faster," he said. "Have you upgraded my network?"

Reliable Voice for Slow Office Network Connections

IQS delivers clear, reliable voice services even over underperforming ISP links like those in some industrial regions. Once C&M Industries installed IQS, network performance overall improved, and the company's reliance on SaaS applications for accounting no longer jeopardized VoIP call quality and reliability. "Have you upgraded my network?" the controller asked?