Adapting to its growing and fluid business model, a cloud/SaaS enterprise is transforming its WAN infrastructure and totally moving to the cloud.

The company is migrating all of its workloads to the cloud, including customer-facing applications and accompanying back-end systems, and is fully embracing the public cloud, which is a transformation that extends to more than 50 offices in over 30 countries, supporting more than 10,000 employees.

The firm’s business is powered by three cloud-based solutions for digital and creative marketing and document management. Additionally, the company is implementing an innovative engine as a core element of their cloud platform, utilizing artificial intelligence, machine learning, and deep learning capabilities.

The criteria for the company’s digital transition powered by SD-WAN architecture included high the availability for business continuity, enhanced distributed security, increased performance and greater agility. Critical to solution, was its ability to support the company’s mandate to accomplish four-nines availability for critical services, while significantly lowering costs.

The Problem

The company was moving to an architecture that included multiple circuits to each branch office distributed throughout the world, so they needed a solution that would allow them to easily manage diverse networks and bandwidth. Due to the high cost and complexity of maintaining their worldwide branch offices, the company needed a centralized management solution that offered zero touch in the branches.

The firm’s traditional WAN had difficulty keeping up with their rapid changes and growing demands. They needed to solve challenges associated with network agility and speed of deployment for circuit provisioning, adding new sites, mergers and acquisitions, and site expansions.

They had a hub-and-spoke architecture, with each branch office using a single MPLS circuit. However, MPLS connecting users to the cloud was expensive, and had insufficient processes to access the company’s virtual private clouds (VPCs) in AWS and Microsoft Azure. They also needed a new WAN infrastructure to support their workload distribution for their multi-cloud environment.

Due to security concerns, the company was backhauling Internet traffic through hub locations, including access to their private instances within VPCs in AWS and Azure. Internet traffic from other countries was being backhauled to the company’s corporate office in California, which degraded the quality of their user experience.

The resulting poor performance drove the firm to seek better control of its overlay network and easier connectivity among their sites, and public and private resources. The company needed the flexibility to plug different circuit
types into its network fabric, and get direct local Internet access for each branch office. They also wanted to make every branch office one hop away from any resource it needed to access.

The cost to support all branch office locations needed to be addressed. They needed rock-solid availability and significantly lower costs at all locations. These requirements touched upon significant elements of their branch office infrastructure, including network hardware, circuits, security stack, and space, power and cooling.

**The Solution – Versa Networks SD-WAN Architecture**

Before this enterprise moved forward with its digital transformation using SD-WAN, they conducted extensive research to understand all their options, and tested multiple products within their lab. After rigorous research and testing, they determined that Versa Networks SD-WAN had met all of their network and security requirements. This allowed the company to begin the process, and integrate their applications, cloud resources and connectivity into the Versa SD-WAN architecture.

The first phase involved moving the company’s network access layer into the SD-WAN fabric, which meant switching to Versa-certified white box routers in each branch office location and connecting them to the SD-WAN fabric. But first, the team had to address concerns among their network and security teams about white box deployment. Ultimately, the company was satisfied with the fact that Versa ships white boxes with the software already pre-built. If a box in the company’s two box HA branch office configuration happens to fail, resolving it is as easy as going into the Versa controller and updating the serial number in the box, and powering it back on.

The firm has completed approximately 90% of its on-premises site deployments. The second phase will bring their virtual private clouds into the SD-WAN fabric. The company already has all of their cloud-based controllers inside AWS, with a virtual data center spun up as a branch. One business requirement is to ensure performance for voice and video traffic is of high quality, especially with the company’s transition from MPLS to Internet circuits, a requirement that has been addressed with the Versa SD-WAN architecture that overcomes limitations that are characteristic with Internet circuits.

**The Results with the Versa SD-WAN Architecture**

The Versa SD-WAN architecture has given this enterprise high availability, increased bandwidth, local Internet connectivity, improved performance, enhanced security, improved monitoring and data analysis, multi-cloud connectivity, and a higher quality user experience.

Prior to deploying the SD-WAN, the company had an MPLS circuit with a standby backup circuit for critical sites, such as data centers and call centers, while all non-critical locations had a single circuit. After deploying SD-WAN, all branch locations now have multiple active-active circuits for high availability.

Enhanced configuration and management allow the company to easily migrate legacy sites to the SD-WAN fabric quickly and reliably. In fact, outside of pre- and post-testing, the company is able to migrate a branch office in less than an hour.

The SD-WAN fabric has allowed the firm to move from MPLS to multiple lower cost Internet circuits, enabling the company to meet the corporate mandate to lower costs. With the Versa SD-WAN architecture, the organization’s operating cost per site is now just over more than half the cost of the previous spend over five years.

**About Versa Networks**

Versa Networks is the innovator of Secure Cloud IP architecture, a next-generation software platform that delivers integrated cloud, networking and security services. Versa's visionary solution, with an unrivalled depth of features and capabilities, enables enterprises to transition off legacy WANs to achieve business agility, branch modernization, and TCO advantages toward their digital transformation journey. The company has transacted over 150,000 software licenses through service providers, partners and enterprises globally. Versa Networks is privately held and funded by Sequoia Capital, Mayfield, Artis Ventures, Verizon Ventures, Comcast Ventures, and Liberty Global Ventures. For more information, visit https://www.versa-networks.com