INDUSTRY

Financial Services

OBJECTIVES

- Transform network infrastructure to a software-based, virtual infrastructure

- Eliminate proprietary hardware dependence

- Shorten network provisioning time

- Enable rapid onboarding

- Deploy diverse sites with consistency

- Leverage a consistent API for all programming and reporting

- Reduce complexity with a controller-based routing typology using an overlay

- Store all relevant IT hardware and software information, and their relationships in a CMDB

- Integrate with their legacy network

RESULTS

- **Complete WAN modernization**

- **Cloud-ready network** supports all sites and services

Simplified
- Reduced device sprawl and lowered infrastructure footprint - everywhere

Lower
- Cost of deployment and ongoing management

Automated
- Operational management

Reduced
- Branch, SaaS and multi-cloud deployment times

Always-on
- Reliable and secure connectivity

Global Credit Card Payments Company Modernizes WAN Infrastructure with Versa SD-WAN

A global company providing payment services, and financial and commerce technology solutions, needed to transform its WAN infrastructure to better support its customers. Their customers include financial institutions and merchants, corporations and consumers. To support their integrated solutions, the company required a new software-based infrastructure that would move money and information at scale, and accelerate services at the rapidly increasing pace of change.

The company required a comprehensive modernization of their WAN, and one that would enable them to stand apart as a global leader of Fintech, payments and commerce, and create differentiated value for their customers.

To compete in the global market, their business could no longer be constrained by physical infrastructure. To overcome this, they needed a software-based, virtual solution, that would fully leverage the cloud – a critical component to their digital transformation, and an enabler for their applications and workloads to scale on-demand.

The Problem

The company was struggling with network complexity that held them back from much needed innovations. Hardware device sprawl had become too costly and cumbersome. A solution was needed to simplify their networking and computing environments. They also wanted to work with technology partners that would use best practices to help them with installation, deployment and support.

Scaling their infrastructure was complex. Their users and the applications and workloads were continuously changing, with a myriad IoT devices and sensors, and a vast array of IaaS, private, public, hybrid and multi-clouds.

The company had multiple needs and use cases identified for their SD-WAN deployment, including:

- Branch office connectivity to processing centers
- Connecting branch offices to cloud resources
- Mobile and IoT endpoint connectivity
- Customer self-service portals for branch, mobile and home users

The Solution – Versa Networks SD-WAN

To accomplish their WAN transformation, the company chose Versa Network's SD-WAN. Versa's single platform, with multi-function VNFs, provided the diversity of features and flexible deployment capabilities the company needed. Versa enabled them to simplify their network infrastructure, reduce their multi-site footprint – everywhere, and lower the cost of deployment and operational management. Versa SD-WAN software is installed on vendor agnostic hardware at branch locations that deploy services that scale based on the size of each location.

Deploying virtual network services within a software-defined infrastructure allowed the company to centralize all functions into a set of compute blocks that easily scale by simply adding compute nodes, rather than deploying more hardware.

The company's network product development is now built on ETSI standards to support network function virtualization (NFV), which allows the company to virtualize functions like routing, firewalling, network optimizations and others, running them on a hypervisor. This approach provides a holistic framework for the company build out of their network infrastructure, and the products and services that run on the network. They also leverage service chaining, to pass information among the virtualized network functions, all running within universal CPEs located in their distributed sites and cloud services.

Key SD-WAN functional requirements include:

- **Rapid onboarding** through a programmable, self-service model
- **Deploying diverse sites** with consistency, driven by automation
- **Consistent REST API** for all programming and reporting
- **Reducing complexity** with a controller-based routing typology using an overlay
- **CMDB** with all relevant IT hardware and software information, and their relationships
- **Integration** with their legacy network
- **Software-based** and hardware independent
- **Layer 7** application-aware

The company deploys their NFV and Versa virtual network function (VNF) infrastructure on top of VXSI. The Versa SD-WAN is a substantial part of the network solution. Versa's software-only SD-WAN has allowed them to deploy it wherever they need. Whether at public cloud sites, edge transit nodes, branch locations and data centers, all use the same API model, with consistent features, functions and configurations.

The company's centralized orchestration, management and analytics are critical to the entire network for monitoring and controlling the services and underlying computing infrastructure. This allows them to automate various functions for a particular location, stringing the automated functions together, and also stringing them across the network compute infrastructure, to simplify provisioning and ensure efficient and appropriate resource allocation.

Automation and virtualization provide more consistent and reliable infrastructure services. Central orchestration enables end-to-end servicing, using multiple automated actions to give users access to data center services. For example, building a VPN tunnel, configuring a VIP, changing a firewall, setting up route peering – and verifying a service is operational.

The company has public, private, hybrid and multi-cloud environments that support office users, mobile users, and IoT devices that are distributed around the world. Their data centers are all layer 2-3 switching and routing, while all other edge services are virtualized, using the same VNFs deployed at all their sites, for reliability, consistency and business continuity.

Edge transit nodes at communication service provider (CSP) locations provide the company with high bandwidth connectivity to multi-cloud and SaaS providers within a single location. Connecting to customer networks at the same colocation site allows the company to fully leverage the edge transit nodes.

The Results

By deploying virtual infrastructure, they are now free from the constraints and limitations of physical infrastructure. By eliminating the plethora of single-function hardware devices, the company has reduced Capex, power consumption, and maintenance and support costs. By adopting a software-based approach, they moved away from the end of life, and end of support challenges, associated with the traditional hardware refresh model.

Now, rather than over-subscribing routers, firewalls, etc., they dedicate the appropriate amount of CPU and memory for each virtual function, based on best practices. In doing so, they save money, because they run their virtual infrastructure on lower cost commodity CPE devices.

By moving away from the costly proprietary hardware pricing model to a software and cloud-based model, the company is able to have flexible licensing based on a subscription. This has also solved the problems associated with ripping and replacing physical equipment, and the frustration with the long timeframes to get new features and functions with hardware equipment.

About Versa Networks

Founded by network industry veterans, Versa Networks is an innovative vendor in the SD-WAN and SD-Security market. Versa's solutions enable service providers and large enterprises to transform the WAN and branch networks to achieve unprecedented business advantages. Versa's carrier-grade NFV software provides unmatched agility, cost savings and flexibility, compared to traditional network hardware. The company is backed by premier venture investors Sequoia, Mayfield, Artis Ventures and Verizon Ventures. For more information, visit https://www.versa-networks.com