

# Leading Manufacturer's SD-WAN Conversion Assured By NETSCOUT Virtual Visibility

Gained NETSCOUT Real-Time Monitoring of VoIP Performance Over SD-WAN Critical to Project Success

## OVERVIEW

### The Challenge

- WAN-to-SD-WAN conversion required virtual visibility
- VoIP performance in pre-deployment over SD-WAN was faulty, jeopardizing the project

### The Solution

- nGeniusONE® Service Assurance platform
- InfiniStreamNG® appliances
- vSTREAM™ virtual appliances

### The Results

- Improved visibility into virtual network environment at hundreds of remote offices and business-critical VoIP performance
- Reduced OpEx with SD-WAN, lowered CapEx with lightweight virtual branch office deployment



### Customer Profile

This manufacturer's comprehensive products and services portfolio focuses on providing business solutions to consumers, enterprises, and commercial businesses.

As part of its corporate response to the social and financial impacts felt by their global customers as a result of COVID-19, the company pledged millions of dollars to support the efforts of front-line healthcare workers and first responders.

The company is a long-time NETSCOUT® customer, using the nGeniusONE Service Assurance platform, as well as InfiniStreamNG and vSTREAM virtual data sources across the enterprise environment.

### The Challenge

Even prior to the work-from-home employee transition, this company had experienced exponential remote office network changes, with an increase from 50 locations to hundreds of them. Wanting to efficiently manage business service delivery to this large-scale remote office network using centralized information technology (IT) resources, company leadership made the decision to convert from their hardware-based wide area network (WAN) to a Software-defined WAN (SD-WAN) that would offer:

- Increased deployment agility
- Improved performance for remote employees with customer-facing responsibilities and interaction
- Enhanced security
- Reduced capital and operating expenses (CapEx/OpEx)

The identified SD-WAN solution involved numerous technology vendors, including:

- VMware, providing VeloCloud SD-WAN, VMware ESXi hypervisor, vRealize Network Insight, and VeloCloud Orchestrator
- Avaya Voice Over IP (VoIP) services running at the remote offices
- Universal CPE (uCPE) and Virtual Network Function (VNF) vendor solutions

During standard pre-deployment activities, the IT team began testing the solution, including how the transformed SD-WAN services would support Avaya VoIP business services. VoIP performance over SD-WAN was a critical element of the network transition, reflecting the IT team's ongoing commitment to delivering reliable voice services to the company's remote office employees, regardless of the network technology deployed.

As part of pre-deployment activities, the VoIP IT team began running synthetic test scripts to assess performance over Avaya over SD-WAN. The test results they were seeing were problematic, with the VoIP technology not performing reliably over SD-WAN. With the VoIP IT team subsequently validating the Avaya platform was operational, questions surfaced about possible false positives occurring during synthetic testing.

Concerned about how these pre-deployment results showed potential issues in investing in this SD-WAN conversion, company leadership informed the IT team about possibly canceling the project. If VoIP was not performing as expected in the SD-WAN testing environment, there was no assurance the solution could be moved into production without adversely impacting the business continuity of remote office employees relying on high-quality voice services. The IT team needed to quickly solve these performance challenges in order to advance the network conversion.

## Solution in Action

The company's IT leadership engaged NETSCOUT to enhance visibility that had been lacking in the virtual testing environment in order to effectively troubleshoot and resolve VoIP over SD-WAN testing issues, which resulted in deployment of:

- nGeniusONE Service Assurance platform with extended unified communications analytics for real-time VoIP quality monitoring
- vSTREAM virtual appliances in VMware virtual chassis, bringing visibility into the VMware ESXi hypervisor, VMware VeloCloud, and VNF environment

With NETSCOUT providing virtual visibility that been eluding IT leadership, nGeniusONE troubleshooting workflows quickly revealed two key findings that enabled this SD-WAN conversion project to advance to production:

- nGeniusONE identified that the false negatives occurring during the VoIP and SD-WAN testing were related to the IP address being used for Avaya scripting data, which was yielding errors and false negatives
- nGeniusONE UC analytics revealed that the VoIP application was sensitive to data transfer processes on SD-WAN and would benefit from fine-tuning from the VoIP IT team prior to production rollout

## The Results

This successful SD-WAN conversion and rollout represented major wins for the company, IT leadership, remote office users, and, ultimately, customer service interactions.

For the company, the SD-WAN conversion was completed without interrupting business continuity of remote office workers. Further, with the completion of the SD-WAN conversion, they were able to realize lower network operating expenses and faster service delivery to remote office users.

For the IT team, NETSCOUT nGeniusONE and vSTREAM virtual visibility validated their SD-WAN architecture design, allowing them to move forward with a lightweight virtual installation at each of the remote offices that was coordinated in a remote, zero-touch fashion.

Company employees based in those remote locations offices receive enhanced voice technology performance in this new SD-WAN environment, with nGeniusONE UC analytics providing quality of service analysis of the Avaya VoIP technology they rely on for everyday business communications success.

---

## LEARN MORE

For more information about NETSCOUT Software-Defined Network solutions, visit:

<https://www.netscout.com/business-continuity/software-defined-networking>

---



### Corporate Headquarters

NETSCOUT Systems, Inc.  
Westford, MA 01886-4105  
Phone: +1 978-614-4000  
[www.netscout.com](http://www.netscout.com)

### Sales Information

Toll Free US: 800-309-4804  
(International numbers below)

### Product Support

Toll Free US: 888-357-7667  
(International numbers below)

NETSCOUT offers sales, support, and services in over 32 countries. Global addresses, and international numbers are listed on the NETSCOUT website at: [www.netscout.com/company/contact-us](http://www.netscout.com/company/contact-us)