

# Visualizing Remote User Experience With NETSCOUT

Manufacturer Assures Service Delivery Across Remote Office, VPN & ISP, and Virtual Application Service Edges

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## OVERVIEW

### The Challenge

- SD-WAN conversion involved hundreds of remote offices and new VMware and virtual network function platforms, requiring visibility for real-time monitoring
- Essential remote office functions involved critical manufacturing and VoIP-based call center services

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### The Solution

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

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### The Results

- Eliminated service edge visibility blind spots in remote office environment access to virtual business services
- Lowered SD-WAN conversion risk for business and IT leaders, with reduced CapEx and OpEx



### Customer Profile

This global manufacturer offers a comprehensive product and service portfolio to their global customers, with a focus on providing business solutions to consumers, enterprises, and commercial businesses.

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

Exponential growth in the company's remote office environment prompted their centralized information technology (IT) team to pursue a strategy to convert their wide area network (WAN) to a software-defined WAN (SD-WAN), which would offer:

- Increased deployment agility
- Reduced capital expenditures (CapEx) and operating expenses (OpEx)
- Enhanced security
- Improved performance for remote workers interacting with customers

With hundreds of remote offices, the SD-WAN project was a high-profile initiative for the IT team. The collective IT team was responsible for delivering reliable business services to a global workforce, including a number of remote workers. This workforce population included:

- Thousands of employees working in the remote offices converting from WAN to SD-WAN
- Hybrid workforce involving at-home office use
- Thousands of the company's Call Center agents

As a result, project success depended on several critical factors, including:

- The WAN-to-SD-WAN technology conversion process, which involved numerous technology vendors, including VMware (providing VeloCloud SD-WAN, VMware ESXi hypervisor, and vRealize Network Insight, and VeloCloud Orchestrator technology), Avaya (providing Voice Over IP technology operating in many of these remote offices), Universal CPE (uCPE) and virtual networking functions (VNF) multi-vendor solutions
- Transitioning the company's remote office business connectivity to SD-WAN from MPLS
- Providing uninterrupted business services to thousands of on-premises and remote employees before, during, and after the SD-WAN conversion

In project planning and pre-production testing activities, the IT team grew concerned about visibility blind spots in the "service edges" that would soon be part of the transitioned network. In particular, the IT team identified new service edge visibility needs across the SD-WAN environment, including:

- At the hundreds of remote offices that would soon be using new virtual platforms to support uninterrupted business network and application access, as well as VoIP technology performance for company users

- At the Internet Service Provider (ISP) links and Virtual Private Network (VPN) gateways coming into the data center, which had become essential in assuring business continuity
- The edges in the core of the data center, as well as workload edges at the application server farms supporting manufacturing and business operations processes

SD-WAN would soon provide the means by which employees accessed numerous cloud and Software-as-a-Service (SaaS) platforms critical to their daily business efficiencies, with this virtual environment including Microsoft Office365, Salesforce.com, Workday, ServiceNow, and Amazon Web Services (AWS).

Any visibility gap in the service edges comprising this transformed network would compromise SD-WAN conversion success and subsequent business service delivery to thousands of company users working in the remote office environment.

### Solution in Action

The company's IT leadership engaged their long-time business partner, NETSCOUT, to bring a vendor-independent solution for visibility and service assurance into this transformed SD-WAN. As a result, the company deployed additional vSTREAM virtual appliances operating in VMware virtual chassis in hundreds of remote offices, bringing visibility into the VMware ESXi hypervisor, VMware VeloCloud, and VNF environment.

The new vSTREAM environment also provided visibility into the business services running in these remote offices, generating smart data from virtual network traffic in real-time for use by the company's nGeniusONE performance analytics. nGeniusONE Unified Communication (UC) analytics played a crucial role in ensuring that the Avaya VoIP technology supporting thousands of remote Call Center agents had not been adversely impacted by the

SD-WAN conversion. The IT team continued to rely on ISNG appliances deployed in their data center network to take advantage of the visibility NETSCOUT provided throughout the application server farms running in those environments.

### The Results

The IT team's ability to identify and close service edge visibility gaps prior to SD-WAN conversion was essential to project success. The IT team reduced the capital expenditures for this project by introducing NETSCOUT vSTREAM data sources to support the virtual uCPE, VMware, and VNF environments deployed to bring SD-WAN to remote offices. Not only was this good for assuring application service performance, it helped optimize end-user experience and assure that employee/staff productivity at the remote locations was as good, if not better, than in the previous WAN connectivity environment.

This was a high-profile SD-WAN project for the IT team, whose reliance on NETSCOUT's smart visibility approach enabled them to reduce risk and complete this conversion with a virtual approach that offered a low-touch deployment.

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### LEARN MORE

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

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

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