End-to-End Application Visibility & Troubleshooting in VMware NSX-T Environments

Consistent, end-to-end visibility and troubleshooting at the application level is imperative for successful deployments of critical business services within this transformed data center. Achieving a digitally transformed bottom line depends on continuous availability and quality end-user experience; anything less puts your business at risk. What is needed is a visibility and monitoring solution that eliminates the blind spots and provides a seamless view that will scale across VMware ESX, NSX and SD-WAN deployments alongside multi-cloud and legacy data center environments.

Advanced Visibility is the Key to Assuring Application Availability

IT infrastructure and operations teams are focused on delivering the agility required by the business by automating their infrastructure through software-defined networks (SDN) with NSX and SD-WAN VeloCloud. It is imperative they understand how applications are performing through the roll out and management of these technologies. Yet end-to-end application visibility and troubleshooting capabilities are not readily available to these teams.

Most enterprises use dozens of point monitoring tools leveraging different data collection sources and analysis methods. Discovering the true source of disruptions in SDNs can be significantly delayed if IT lacks visibility or are using inefficient point tools, especially across a complex service delivery path. IT must quickly resolve issues that arise (reduce Mean-Time-to-Resolution – MTTR), and in many cases prove it is NOT an SDN or SD-WAN at all (Mean-Time-to-Innocence – MTTI). This challenge is further compounded by the complexity of enterprise multi-cloud strategies and the wide variety of network, application, infrastructure, and security issues that can impact services across the SDN environment.

NETSCOUT NSX-T Edition of vSTREAM Bridges the East-West Application Visibility Gap

NETSCOUT® is the first to partner with VMware to provide the most complete visibility and monitoring solution, using packet data, to gain visibility into your entire SDN and SD-WAN deployments alongside legacy data center and multi-cloud.

NETSCOUT leverages the power of packet data through its patented Adaptive Service Intelligence® (ASI) technology and is designed to scale to the needs of the world’s largest enterprises and service providers. The NSX-T edition of vSTREAM® is unique in delivering application visibility, troubleshooting and assurance directly from the hypervisor. nGeniusONE® Service Assurance platform, with industry-leading support for more than 1,000 applications, including voice, video, and data, uses smart data from vSTREAM to pinpoint the source of application disruptions impacting the user community.

The NSX-T edition of vSTREAM is an exciting addition to NETSCOUT’s smart data offering. The agentless integration with NSX-T provides seamless and unparalleled visibility into the performance of applications for both north-south and east-west traffic.”

Enterprise Network Director, Financial Services Company

Business leaders are driving IT and the Infrastructure groups to help them deliver new levels of operational efficiency and digital business strategies, with enhanced security, to increase revenue and competitiveness. IT leaders are focused on creating and delivering applications within transformed data centers and multi-cloud architectures to achieve these business expectations. VMware with NSX-T is the technology that allows a “one click” experience for the implementation of networks and applications. This helps organizations accelerate their business through as much automation as possible while providing a common operational platform for IT.
Unrivaled, end-to-end visibility into business application services along with contextual workflows to speed problem resolution are available with the NSX-T edition of vSTREAM and nGeniusONE, making the solution both easy for a Level 1 responder to use and powerful for an expert to operate. Rather than looking at individual elements in isolation, the nGeniusONE solution offers an overarching view into the performance characteristics of applications and user experience, while validating that micro-segmentation security controls have been properly implemented. These views expose underlying service dependencies that help IT teams more effectively manage health, availability, security, and user experience issues across their NSX data centers.

### NSX-T Edition of vSTREAM Solution Overview

Analysis of packet and session data with the NSX-T edition of vSTREAM is performed locally and generates key performance indicators (KPIs) that are consumed and viewed in nGeniusONE. This avoids overburdening the network with added load from sending copies of packets to external tools. All of NETSCOUT’s ASI-based monitoring platforms are integrated with the nGeniusONE service assurance platform to provide a common set of metadata analytics.

- Provides optimized visibility into east-west traffic in VMware NSX data centers and NSX cloud environments for end-to-end application performance, troubleshooting and user experience analysis
- Conveys critical key performance, traffic, error, and server indicators (KPIs, KTIs, KEIs, and KSIs) for user experience, application performance, as well as application and network errors
- Delivers service dependency mapping that exposes the underlying inter-relationships and connectivity between applications, servers, and users
- Provides Service Dashboard rollups of application performance
- On-demand packet capture for analysis by nGeniusONE
- Reports on application behavior, regardless of virtual machine / container location or movement
- Provides continuous monitoring and trending of data in customizable reports for use by IT staff and business stakeholders

### Figure 1: NSX-T Edition of vSTREAM with nGeniusONE Service Assurance platform delivers rich ASI intelligence for your organization’s mission-critical VMware NSX data center and improves collaboration among all members of the IT team, from NetOps to DevOps, AppOps, SecOps, and Cloud Ops.