NETSCOUT®

nGeniusPULSE

Visibility to the Business Edge to Ensure Availability and Performance From Anywhere

HIGHLIGHTS

- Detect business service issues experienced in remote sites or by remote users anywhere
- Monitor health of network and underlying services for business communications
- Correlate infrastructure health issues with business service problems
- Detect problems during off-hours or in the absence of user activity
- Monitor via wired and Wi-Fi networks
- Verify VPN availability
- Supports deployment in NETSCOUT® nGenius Enterprise Performance Management solution to streamline troubleshooting

Product Overview

As part of the nGenius® Enterprise Performance Management solution providing end-through-end network visibility, nGenius®PULSE is an always-on and automated solution for cloud, hybrid, and virtual environments that helps customers manage the user experience and isolate issues between corporate infrastructure and the variety of cloud, colocation sites, SaaS / UCaaS applications, and other third-party providers assets they use. nGeniusPULSE also correlates the health of the supporting infrastructure with user experience, ensuring that the most critical elements of the business ecosystem are connected and working.

With automatic and continuous active (synthetic) testing of business services availability and performance, nGeniusPULSE provides 24x7 monitoring of critical applications and services from anywhere in the enterprise - in the data center, at remote offices or branches, for remote site workers, and more.

The nGeniusPULSE solution is centrally-managed and deployed in a data center on a hardware or virtual server appliance. Software capabilities in InfiniStreamNG® and vSTREAM® appliances, deployed anywhere throughout the organization to run active tests – over wired or Wi-Fi connections, send results to the nGeniusPULSE Server. From the Server, results are displayed in an intuitive interface that includes dashboards, drilldowns, and alerts, as well as easy-to-use configuration and administration and an API for data extraction or configuration.

nGeniusPULSE is deployed as part of NETSCOUT nGenius Enterprise Performance Management Solution, to capture the packet-level data from synthetic tests. This packet data is analyzed by nGeniusONE to provide critical visibility into user experience.
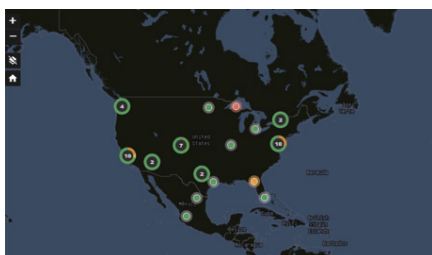
Product Capabilities

- Enterprise business application availability monitoring
- Capture and decrypt packet data from synthetic transactions for deep-dive analysis
- VoIP Call Testing and Network Performance Testing, including loss, latency, Jitter, throughput, and other network service tests (e.g., HTTP, HTTPS, DNS, FTP)
- Server, Network Device, and Wi-Fi infrastructure health and availability monitoring
- Network Path Monitoring
- Advanced Custom Test Script Platform – Create custom tests with Python-enabled scripting platform to test customer-specific key performance indicators (KPIs)
- Up/Down and performance-based alerting
- Infrastructure Performance Monitoring (IPM), including the polling of third-party devices

Example Use Cases

- Compare Business Service Performance via Wired or Wi-Fi connections
- Test Web, SaaS, and UCaaS applications from login-to-logout
- Verify VPN availability
- Assure Voice over IP (VoIP) call quality
- Assure quality user experience as part of the nGenius Enterprise Performance Management solution
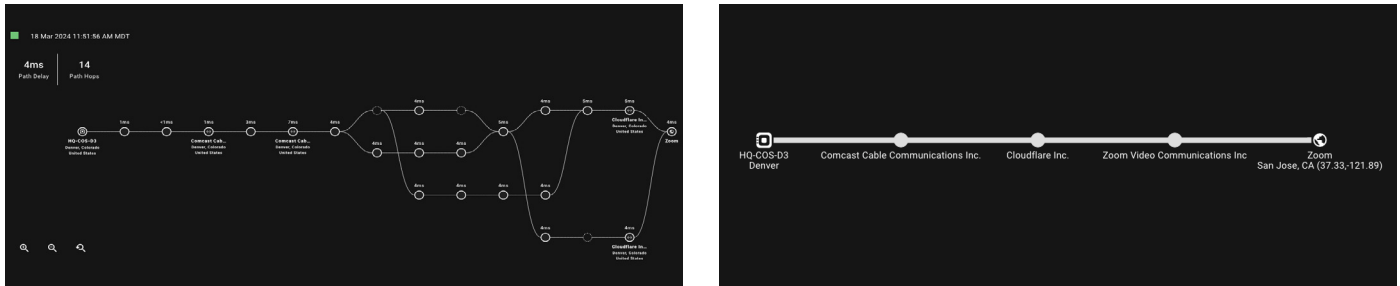
Figure 1: nGeniusPULSE monitors availability and performance of an organization's revenue-generating applications and services. It also offers Path Analysis with hop-by-hop views of the network path from remote sites to the service being used.

Monitor	Elements	Monitoring Method	Measurements
Enterprise Applications	SaaS and data center applications	Synthetic tests; Business Transaction Testing (BTT)	Application, DNS, SSL, Client, Network and Server delay
VoIP Services	On-premises and cloud hosted, SIP-based VoIP systems	Synthetic test using VoIP infrastructure to make real phone calls	MOS, Loss, Latency, Jitter, Dial Delay, Ring Delay, Codec
Network	Network performance, DNS, FTP, VPN, and other network services, Edit the polled speed of an interface to get correct utilization measurements	Synthetic Test; Custom Scripts	Path, Loss, Latency, Jitter, Availability, and Other Service-Specific Metrics
Wi-Fi Performance	Service performance over Wi-Fi connections. Supports all Wi-Fi networks	Synthetic test	Signal Strength, Connection Time; Plus Any/All of the Above Active Tests

NETSCOUT nGenius Enterprise Performance Management solution

InfiniStreamNG and vSTREAM appliances, strategically deployed throughout the enterprise, provide both performance and user experience assurance with nGeniusONE. Synthetic tests, including Business Transaction Tests, are supported and can be configured and scheduled to provide analysis from regional offices, branch locations, and even unmanned sites, for evaluating user experience with applications hosted in Data Centers, cloud, and SaaS / UCaaS environments. Packets captured from these tests will be sent for analysis. The metadata (ASI) generated from these tests is consumed alongside passive packet monitoring in nGeniusONE to provide views and analysis that identify issues impacting end-user experience, along with details to quickly pinpoint the cause of the degradation.

SPECIFICATIONS

nGeniusPULSE Server　　　**nGeniusPULSE Collector**

Hardware Specifications

	nGeniusPULSE Server	nGeniusPULSE Collector
Platform	Dell R760xs	Super-micro: 800-1367 V5 1U
CPU	Dual 12-Core 2.0GHz	Dual 8-Core 2.2GHz
RAM	128GB	96GB
Storage	10x 4TB	16TB
Power	Dual, Hot-Plug, Redundant Power Supply (1+1), 1400W	

Virtual Specifications

Production Requirements

	nGeniusPULSE Server	nGeniusPULSE Collector
CPU	16-Core	8-Core
RAM	64GB	32GB
Storage	4TB	4TB

Minimum Requirements

CPU	4-core
RAM	16GB
Standby Server	Available In Both Hardware and Virtual Models
Storage	50GB

System Capacity

Synthetic Testing	- nGeniusPULSE Server supports synthetic testing capabilities* *Total number varies based on type and frequency of tests being run
Monitored Elements (MEs)	- nGeniusPULSE Server with built-in Collector supports up to 25,000 MEs - nGeniusPULSE Server with external Collectors in a distributed deployment supports up to 500,000 MEs nGeniusPULSE Collector (external) supports up to 50,000 MEs

nGenius Enterprise Performance Management Solution

NETSCOUT's nGenius Enterprise Performance Management solution is built on the foundation of the nGeniusONE solution, providing digital edge visibility and user experience insights from real-time, contextual analysis of service, network, and application performance.

Available on both hardware and virtual platforms, nGeniusONE provides top-down workflows that support faster IT troubleshooting across data center, hybrid cloud, and virtual environments.

ASI Technology

ASI technology transforms network traffic and synthetic testing results into smart data, providing real-time visibility into user experience to ensure security, manage risk, and drive service performance.

All ASI-based monitoring appliances are integrated with the nGeniusONE solution to provide a common set of metadata analytics.

NETSCOUT