

nGeniusPULSE

HIGHLIGHTS

- Monitors remote site application availability and network connectivity
- Ensures critical components of business web applications are working for users at business locations
- Streamlines workflows and reduces complexity via built-in integration with nGeniusONE® to monitor infrastructure health
- Complements nGeniusONE's passive wire-data monitoring for total visibility

Product Overview

As part of the nGenius portfolio, 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 assets they own and the multitude of service providers they use; while correlating service delivery with supporting infrastructure ensuring that the most critical elements of the business eco-system are connected and working.

With automatic and continuous active testing of business services' availability and performance, nGeniusPULSE provides 24x7 monitoring of critical applications and services from everywhere in the Enterprise. Gain visibility of cloud, hybrid, VoIP, and network performance from remote locations and anywhere users need connectivity and highly performing systems.

The nGeniusPULSE solution is deployed in a data center on a hardware appliance or virtual server. Agents, called "nPoints," are deployed as either hardware or software anywhere throughout the organization to run active tests and 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 includes direct technical support from NETSCOUT®'s best-in-class support teams with 24x7 support services.

nGeniusPULSE also extends the service-oriented approach of nGeniusONE and Adaptive Service Intelligence™ (ASI) to infrastructure monitoring. When a problem is identified by nGeniusONE and isolated as a potential infrastructure problem, IT can drill-down directly from the nGeniusONE console to the underlying and specific infrastructure element in question within nGeniusPULSE.

Product Capabilities

- Enterprise Business Application Availability Monitoring
- Business Transaction Testing
- VoIP Call Testing
- Network Performance Testing
- HTTP, HTTPS, DNS, FTP, and Other Network Service Tests
- WLAN Infrastructure Health and Availability Monitoring
- Network Path Monitoring
- Network Device Health and Availability Monitoring
- Server Health and Availability Monitoring
- Advanced Custom Test Script Platform
- Hardware and Software Monitoring Agents
- Web-based User Interface
- Up/Down and Performance-based Alerting



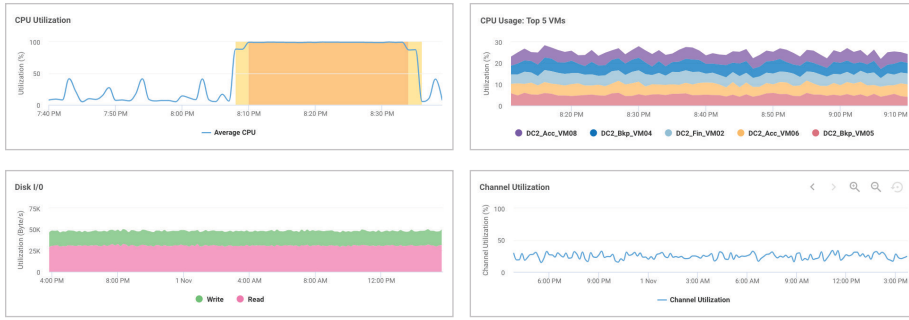


Figure 1: nGeniusPULSE correlates the health of your infrastructure with the performance and availability of your business services.

nPoint Deployment Options

nGeniusPULSE has two deployment options – hardware or software nPoints, to conduct active tests from anywhere users are located. An organization can deploy either type of nPoint, or in any combination, depending on testing requirements and environment.

The hardware nPoint (Model 2000) is a micro-appliance device that can simply be plugged into PoE (Power over Ethernet*) anywhere. Similarly, the Virtual nPoint is a software-based agent that can be downloaded to Windows or Linux machines such as laptops, servers, or VMs – or even emailed to a remote user who is having issues to help diagnose the problem. nPoints provide continuous and automatic testing from locations such as warehouses, branch offices, individual floors in a building, server closets - or even on “things” such as trains, ambulances, forklifts, or ships.

* If PoE is not present, a simple PoE injector can be used.

Monitor	Elements	Testing Method	Measurements
Business Services	Web or Datacenter apps VoIP Transaction tests in app Custom Tests	Synthetic tests via nPoints deployed at user locations	Delay from Application, DNS, SSL, Client, Network and Server, MOS, Loss, Latency, Jitter
Servers	Windows Linux	Polling via SNMP, WinRM	Uptime, CPU, Memory, Disk Usage and I/O, Network I/O
Network Devices	Routers Switches	Polling via SNMP	Uptime, CPU, Memory, Interface Status, Utilization
Wireless Infrastructure	Wireless LAN Controllers Access Points Supports Cisco and Aruba	Polling Wireless LAN Controllers via SNMP	Uptime, CPU, Memory, Interface Status, Channel Utilization, Retry Rate, Error Frame Rate
VMware Infrastructure	Hypervisors, Virtual Machines	VMware APIs	Uptime, CPU, Disk Latency and I/O, Network I/O and Packet Drops, Top VMs

nGeniusPULSE Monitors Availability and Performance of Business Services and the Underlying Infrastructure.

SPECIFICATIONS

nGeniusPULSE Server

One server supports hundreds to thousands of nPoints* for synthetic testing and up to 25,000 monitored infrastructure elements.

*Number of nPoints supported by a single server varies by the type and frequency of tests performed

Hardware Appliance

Platform	Dell R730 2U
CPU	2 Socket 2620 v3
RAM	96GB
Storage	10x 1TB & 2x 500GB
Power	Dual, Hot-Plug, Redundant Power Supply (1+1), 750W

Virtual Appliance VMware Virtual Machine.

Minimum platform requirements	CPU: 8-core RAM: 32 GB Disk 1: 275 GB, OS Disk 2: 10 GB, Commit log Disk 3: 2 TB, Data
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Recommended platform requirements	CPU: 16-core RAM: 64 GB Storage Disk 1: 275 GB, OS Disk 2: 10GB, Commit log Disk 3: 4 TB, Data
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nGeniusPULSE Collector

The Collector can monitor up to 50,000 monitored infrastructure elements. Multiple Collectors can be provisioned into an nGeniusPULSE Server to monitor up to 500,000 infrastructure elements.

Hardware Appliance

Platform	Super-micro: 800-1248 V4 1U
CPU	8-Core Dual Broadwell 2.1 Ghz
RAM	64 GB
Storage	16 TB

Virtual Appliance VMware Virtual Machine

CPU	8-Core
RAM	32 GB
Storage	Disk 1: 500 GB, OS Disk 2: 4 TB, Data

SPECIFICATIONS

Virtual nPoint

Supported operating systems Windows® 10
 Windows® Server 2008 R2, 2012 R2, and 2016
 Linux: Supports most 64-bit Linux operating systems including Red Hat® Enterprise, CentOS®, and Ubuntu®

Minimum platform requirements RAM: 4 GB
 CPU: 2 CPU cores (i5 or above)*
 DISK: 2 GB
 * CPU resource utilization is typically < 2% but can be more depending on the test configuration. Business Transaction Tests can consume 20% - 50% CPU.

nGeniusONE Service Assurance Platform

The nGeniusONE Service Assurance platform helps dramatically shorten the time required to solve network and application performance issues by providing one common set of metadata for service visibility across application tiers, network components, and diverse user devices. With both macro-level and micro-level insights into the performance and use of complex, enterprise-wide services, the nGeniusONE Service Assurance platform addresses the needs of a collaborative IT operational team including network, application, server, and service delivery managers.

ASI Technology



The nGeniusONE Service Assurance platform is powered by Adaptive Service Intelligence™ (ASI) technology, NETSCOUT's patented, next generation Deep Packet

Inspection (DPI) engine that relies on packet-flow data to provide real-time, contextual analysis of service, network, and application performance. The superior scalability, depth, and speed of ASI enables it to generate Key Performance Indicators (KPIs), Key Traffic Indicators (KTIs), Key Server Indicators (KSIs) and Key Error Indicators (KEIs) for protocols and applications that business services depend upon.



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