Get the Best of Both Worlds: Network Packet Monitoring and Synthetic Testing

In our digital world, delivering uninterrupted, secure, high-performing services that end-users depend on is essential to business success. To ensure these services are always available and performing, IT Ops must have end-to-end visibility of the network and applications across all service delivery infrastructures, from anywhere, and at all times. Only with this complete visibility, can IT quickly and accurately triage issues, reduce Mean-Time-to-Resolution (MTTR), and improve the delivery of mission-critical services.

Enterprises today are motivated to ensure quality end-user experience across their extensive user community by delivering user-experience that matches that of headquarters end-users. This task has become ever more important considering the virtually unlimited places end-users can access corporate networking and application resources over Ethernet or Wi-Fi:

- Remote facilities, regionally and/or globally located including branch banks, offices, manufacturing plants and retail stores.
- Work-remote employees (e.g. sales, customer support) accessing networking and application resources (e.g. CRM and UC&C) from the road (e.g. coffee shops, home office) over any device (e.g. lap top, cell phone).
- IT strategies that include private, public, hybrid and multi-cloud.

"Adopt monitoring solutions that extend across the full supply chain." - *Forrester Research**

A combination of packet monitoring and synthetic testing is needed to achieve this visibility and ensure quality end-user experience today.

Packet monitoring is as it sounds – the the actual packet traffic of user interactions with an application across the network. A wealth of information is gathered from the packet data that provides insights into the real-user experience along with network and service performance.

Synthetic (or Active) testing simulates user actions with applications on the network and can even simulate network activity and testing. By having tests run automatically at set time intervals, for example every 5 minutes, they become "monitoring" tools.

One of the main features of synthetic testing is the ability to monitor the availability of applications even when no one is on the system. Common use cases include:

- Monitoring SaaS services' availability, verifying Service-Level Agreements (SLAs), and monitoring remote sites' access to the network and applications.
- Ensuring VoIP phone systems are available and audible.
- Continuously monitoring network speed across multiple locations.
- Testing availability and performance before and after changes are deployed.
- Providing a true baseline to help understand what's "normal" and alert when those thresholds are exceeded.

Our Approach

NETSCOUT® uses a holistic approach to network, application, and security performance management based on end-to-end visibility that includes service delivery interdependencies – whether physical or virtual, on-premise and off-premise, and private and public clouds. Ongoing synthetic testing compliments packet analysis by detecting a 'fire' even when people are not actually using the network and services.

Rapid triage and faster MTTR for remote users when combining packet monitoring and synthetic testing.

NETSCOUT has set a standard with nGenius® solutions by combining packet monitoring with nGeniusONE® Service Assurance platform with synthetic testing and infrastructure health monitoring from user locations in nGenius®PULSE, that provides IT with solutions to meet today's demands for quality end-user experience. Contextual, seamless workflows between the two solutions helps IT understand the scope and impact of issues that simultaneously increases IT efficiency, reduces MTTR, and facilitates collaboration across IT teams. Furthermore, the nGenius solutions give companies a way to gain a consistent, cohesive approach to addressing end-user impacting issues that also reduce the costs to deploy, learn, and maintain.

Our Solutions

Packet Monitoring: nGeniusONE provides an overarching view into the performance characteristics of all network and application components associated with delivering IP-based services. With an emphasis on service triage and network troubleshooting, nGeniusONE combines smart data from real-time monitoring of wire traffic, historical analysis, and multi-layered key performance analytics capabilities for a holistic network and application performance management solution.

Synthetic Testing: nGeniusPULSE is a scalable solution that automatically and routinely simulates end-user actions – even if no active users are on the application, to proactively alert for issues or outages and quickly identify problem domains. Using synthetic testing, nGeniusPULSE tests the availability and performance of any business service, from anywhere, whether the service runs in the cloud as a SaaS, in a data center application, over Ethernet or Wi-Fi, or even a VoIP service.

nGeniusPULSE has two deployment options, to conduct synthetic tests over Ethernet or Wi-Fi, from where users are located.

- Hardware nPoint: a micro-appliances with Power over Ehthernet (PoE) or USB adapter for power providing 24x7 continuous testing from that location automatically.
- Virtual nPoint: a small software-based agent that can be downloaded to Windows or Linux machines such as laptops, servers, or VMs – or even emailed to a user having issues to help diagnose the problem.

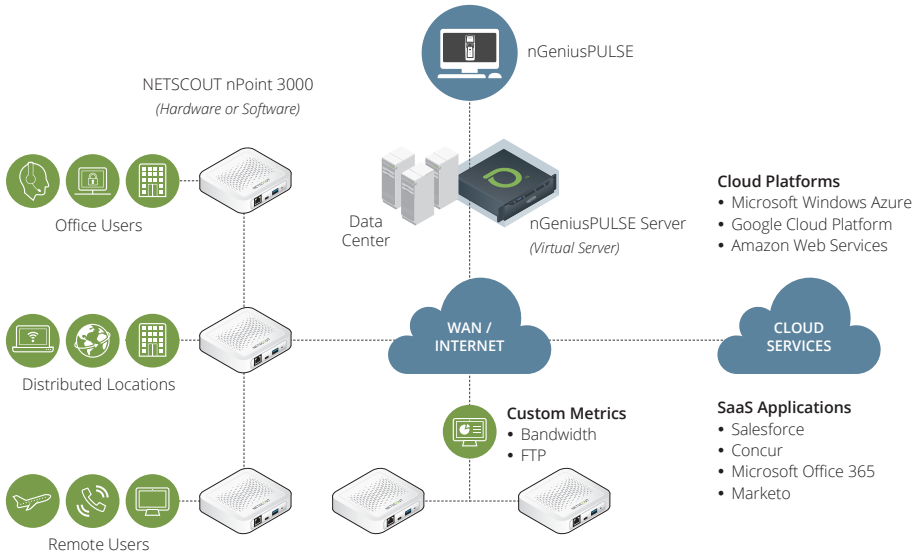
In addition to synthetic testing, nGeniusPULSE also monitors the health of the infrastructure, such as servers, routers, switches, wireless access points etc., that delivers the critical services.

Delivering Value to Enterprises

Synthetic testing is a key part of any comprehensive network monitoring practice. With NETSCOUT's holistic approach that includes both packet and synthetic testing, IT has the visibility necessary to:

- Get ahead of issues before users are impacted – by detecting a 'fire' even when people are not actually using the network and services.
- Collaborate more effectively with third-party SaaS and WAN vendors with verifiable performance data.
- Improve quality of end-user experience at remote locations.
- Reduce MTTR and troubleshooting complexity with streamlined triage workflows.

* Adapt Your Network Strategy To Thrive In A Shifting Ecosystem - Forrester Research Inc., 2017



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