Cisco Orchestrated Assurance powered by Netrounds

Benefits

Through the integration of Netrounds and Cisco NSO, telecoms operators and CSPs are able to:

- **Actively verify that services work after being provisioned by Cisco Network Services Orchestrator (NSO):** Generate real-world traffic to make sure services are delivered correctly before they are exposed to end users and deliver birth certificates to key stakeholders.
- **Ensure that provisioned services continue to work over their lifetime**: Get service quality insights from the end-user perspective through active measurements.
- **Resolve problems more quickly:** Take advantage of remote testing capabilities; automate advanced test scenarios through Cisco NSO; and test across layers, services, and domains.
- **Minimize manual and field test efforts:** Automate test sequences and use remote troubleshooting to reduce manual field efforts, dispatching technicians to fix problems, not to find them.

Automated Verification of Service Quality

Cisco NSO has just configured a new service. How do you validate that it is working across all network layers and domains? Will the service continue to function over its lifetime?

Orchestrated Assurance from Netrounds, a leading provider of active, programmable test and service monitoring solutions for CSPs, is available as a validated addition to Cisco NSO under Cisco's SolutionsPlus Program.

Netrounds, through a model-driven integration with Cisco NSO, helps you actively verify that your provisioned service works at the time of deployment, before your customers begin using the service.

After successful verification of service provisioning, Netrounds also provides continuous service quality insight from your customers' viewpoint. This helps you to discover issues earlier and resolve those more quickly.

Netrounds provides out-of-the-box capabilities to actively test and monitor performance metrics for L2/L3 connections, as well as voice, video, and data services.

All active test and monitoring activities are automated by Cisco NSO at the same time as the service is provisioned. To achieve this, Cisco NSO uses the Netrounds NETCONF/YANG API.

Full Assurance Automation Across Network Layers and Domains

Cisco Orchestrated Assurance powered by Netrounds is composed of two main components, as illustrated in the figure:

- Netrounds Control Center
- Netrounds Test Agents

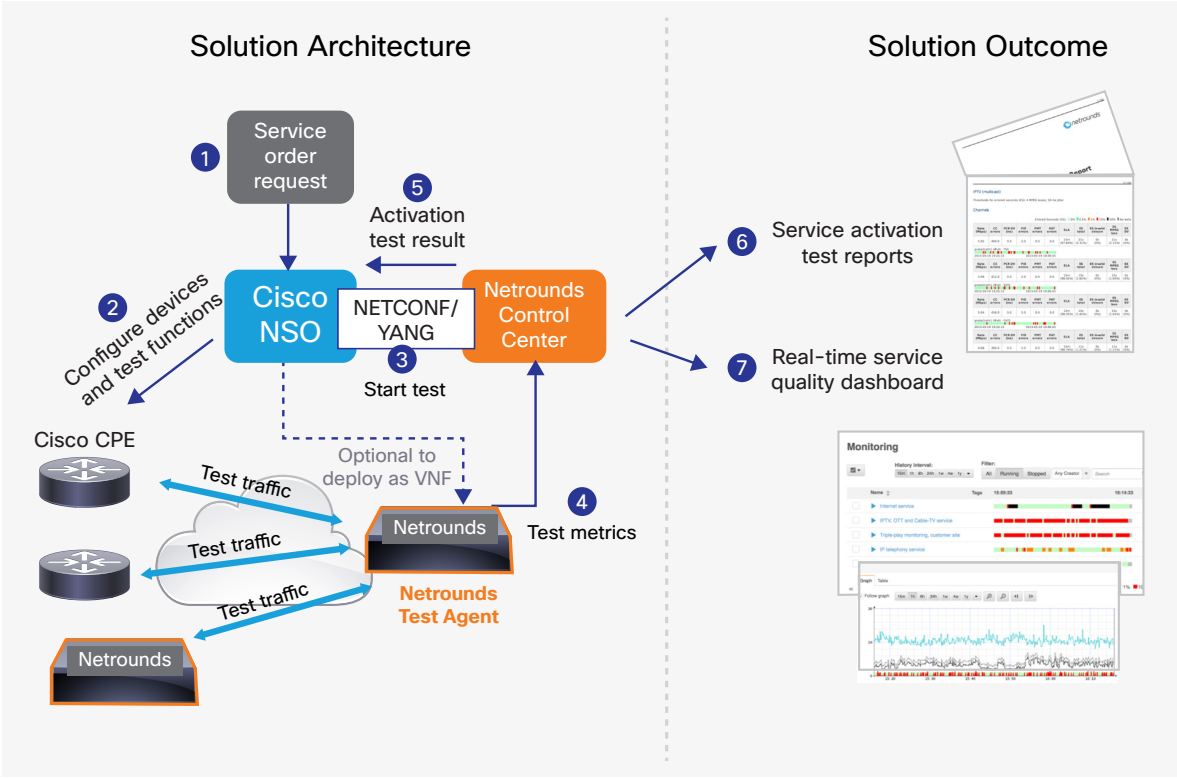
Netrounds Control Center provides an abstraction for executing tests and managing Test Agents. It also consolidates metrics from multiple Test Agents into service activation reports and real-time KPIs for SLA compliance monitoring.

Test Agents actively measure from network layer metrics, such as packet loss and one-way packet delay, up to service layer metrics, such as voice and video quality, HTTP and DNS response times, and more.

Test Agents support standardized test functions such as TWAMP and Y.1731 and can interact with your existing Cisco network devices, as well as devices from other vendors, to increase test coverage and simplify deployment.

Netrounds provides:

- Full programmability through the NETCONF/YANG API
- Out-of-the-box capabilities to measure KPIs across network layers and domains
- Unrivaled ease of use and implementation



"Integrating the Netrounds active testing and monitoring component with a proven orchestration system will allow increased agility for faster delivery of assured services and to take advantage of new business opportunities more quickly. Automatically verifying delivery of service quality as expected by customers will be of critical importance for staying competitive today and in the dynamic, software-defined environment of tomorrow."

– Patrick Waldemar.
Vice President and Head of Technology at Telenor Research

Ensure Your Agile Network Services Reach Their Full Revenue-Generating Potential

Implement Orchestrated Assurance today and take the pains out of delivering assured network services to your customers correctly the first time, every time. For more information visit www.cisco.com/go/nso.

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