

NETSCOUT Visibility to Ensure UCaaS Performance, Availability, and End-User Experience



The evolution of Unified Communications & Collaboration (UCC), or what we more often call UC systems these days, has been going on for over a decade. This evolution has brought rich sets of multi-vendor applications to handle IP-based video, chat, data, and voice hosted on complex infrastructure in the enterprise data center and beyond. These systems also support a wide variety of collaborative productivity tools residing both onsite and in the hybrid cloud.

The uncertainties that underlie the problems of capacity planning are only exacerbated by situations such as the recent public health crisis, and subsequent 'return to office' scenario which makes the number and location of staff even more difficult to predict.

The current trend is for very sophisticated UC systems, as they support an ever-increasing number of services, to be handled by a unified vendor, offering them as a service, or UCaaS. This offloads the burden of traditional new service roll outs within the UC implementation, provisioning of UC resources, call center administration, and so on from the enterprise's IT staff.

Industry analyst predictions of increasing adoption of cloud-based UCC implementations and UCaaS services have come true – with a clear majority of enterprises moving large portions of their UCC to cloud platforms. The reasons that enterprise network operators continue moving to UCaaS before, during and after the COVID-19 crisis are both financial and operational.

Enterprises have addressed challenges and gained excellent visibility into the performance of their on-premises UC deployments, as well as other associated high-value applications and services, with NETSCOUT's UC monitoring capabilities for years.

When organizations entrust their UC traffic to a UCaaS service provider, a new set of challenges arises for ensuring high-quality service delivery in a precise, cost-effective way. Visibility into both the enterprise environment and the cloud-based UCaaS, such as Cisco Webex, Microsoft Teams, or Zoom, is essential to ensure that performance and traffic prioritization are at specified levels, and quickly address issues impacting call set up and/or voice and video quality.

Our Approach

The nGeniusONE® Service Assurance platform is the foundation of NETSCOUT's Smart Edge Monitoring solution for assuring performance, availability, and quality end-user experience with UCaaS. The nGeniusONE platform is an advanced monitoring solution that leverages smart data from NETSCOUT InfiniStreamNG® (ISNG) and vSTREAM® appliances to give you the insights you need to monitor the performance, and continuously determine the quality and availability of the services across your UC implementation.

These rich insights are based on NETSCOUT's patented Adaptive Service Intelligence® (ASI) technology, found in all ISNG and vSTREAM appliances, which creates smart data from network packets that are converted to metadata for analysis. Enterprises use this capability to both monitor and troubleshoot their UC and UCaaS implementations. NETSCOUT's ASI technology provides unique capabilities to track application performance across private and public cloud environments and determine where degradations and other bottlenecks may be emerging

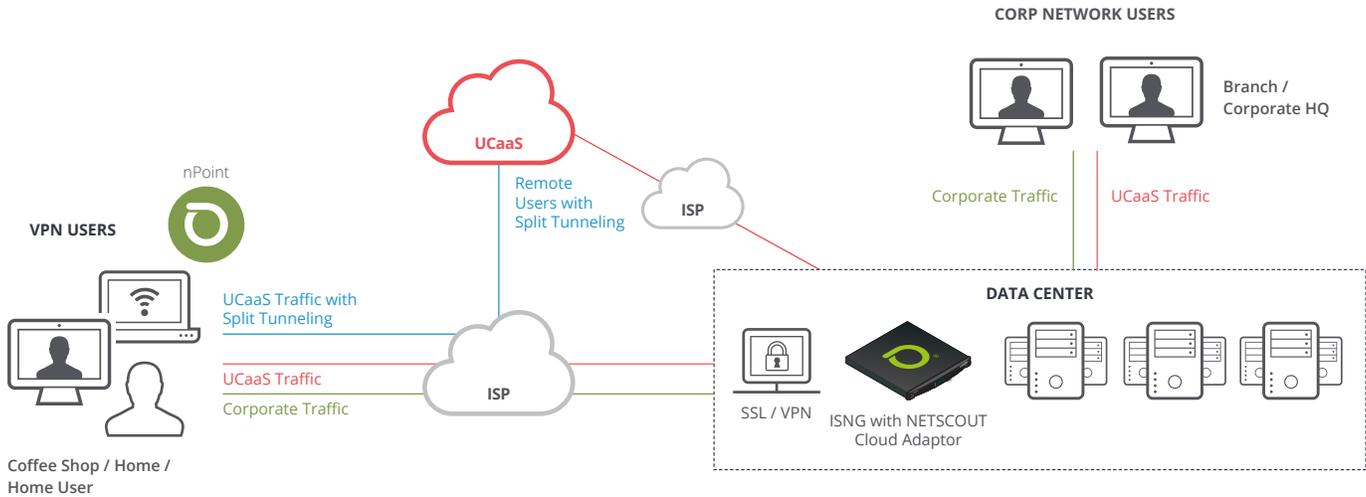


Figure 1: NETSCOUT provides visibility of your UCaaS traffic.

Our Solutions

Our nGeniusONE platform draws together information from ISNG and vSTREAM appliances to provide industry-leading UC service assurance, along with clear, concise workflows for rapid problem resolution. The unique troubleshooting capabilities are available whether applications are being hosted on premises or in multi-cloud environments, even if split tunneling is being used.

UC performance monitoring in nGeniusONE provides session tracking, call setup information, round trip times, video latency, audio latency, standard voice quality measures, and performance by location information to help investigate and isolate potential issues.

nGeniusONE analysis and views into SIP, MSRP protocol, and UC Call Search and Session Analysis provide insight into many of today's text-based and instant messaging services. It also correlates the MSRP sessions with the corresponding SIP sessions, including a view of the Media & Signaling, as well as ladder diagrams to troubleshoot sessions.

nGenius®PULSE and nPoints provide valuable visibility from the end-user perspective and the interaction with third-party cloud-based providers, assuring service availability and performance for your UCaaS users. nGeniusPULSE proactive synthetic testing automatically sends consistent, scheduled tests from the user desktop, even when the users are not active. This also contributes to troubleshooting by discovering a problem early so it can be addressed and possibly rectified before it impacts the users.

Rapid, focused investigation can determine whether the issue is an application availability or a network performance problem, as well as which UC service is being impacted.

nGeniusONE service assurance monitoring and nGeniusPULSE synthetic testing solutions can be combined to give pervasive visibility into UCaaS, helping to pinpoint and remediate network issues. This might include voice, chat, video, web conferencing, or call center applications. With these elements in place, even today's complex UC systems, whether maintained as part of the enterprise's infrastructure, or purchased as a service from a UCaaS vendor, can be monitored continuously and diagnosed quickly when availability or performance issues arise.

NETSCOUT® Smart Edge Monitoring introduces new capabilities for the ISNG and vSTREAM appliances using our Cloud Adaptor that enable ASI-generated smart data to be received from nGeniusPULSE nPoints strategically deployed throughout the enterprise for smart analytics in nGeniusONE. Synthetic tests, including business transaction tests (BTT), can be configured and scheduled to provide analysis from regional offices, branch locations, and even home offices for evaluating user experience with applications hosted in data centers, cloud, and UCaaS environments.

NETSCOUT Value to Enterprises Using UCaaS

With NETSCOUT, enterprises can:

- **Resolve even the most challenging performance and availability issues in their UCaaS implementations and reduce MTTR.** Complex implementations of UC can be viewed and monitored by nGeniusONE as a unified service or as individual services, leading to clarity about business impacts, and to root causes quickly.
- **Alert IT teams to performance bottlenecks even before user experience is degraded.** nGeniusONE's performance monitoring abilities are already pre-configured for in-depth monitoring of the applications that are widely used in UC. If performance is deviating from target parameters, alerts will notify IT before it can adversely affect users.
- **More quickly identify** whether the local Wi-Fi networks or the ISP links are the source of a performance issue using nGeniusPULSE and nPoints.
- **Maintain underlying infrastructure of other network services and applications, which the UC system depends on.** Network services that form the underpinning for many business applications, such as DNS, email, and VPNs, can be monitored with the same set of tools used to monitor the UCaaS implementation, preventing business disruptions that can have reputational, as well as mitigation costs.



Corporate Headquarters

NETSCOUT Systems, Inc.
Westford, MA 01886-4105
Phone: +1 978-614-4000
www.netscout.com

Sales Information

Toll Free US: 800-309-4804
(International numbers below)

Product Support

Toll Free US: 888-357-7667
(International numbers below)

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