



OVERVIEW

Business Challenge

- High volume of communication outages, dropped calls, and poor call quality within call centers and across its numerous retail stores.
- Troubleshooting calls routed through aggregated SIP trunking deployment was problematic resulting poor customer experience.
- Difficulty triaging and isolating connection issues and voice quality problems.

NETSCOUT Solution

- nGeniusONE® servers, nGenius® Unified Communications co-resident licenses, and Infinistream® appliances deployed in key data centers to extend visibility into audio signaling traffic.
- Fixed instrumentation placed at network ingress points to the SIP server farms, behind SBCs, and between sites on MPLS egress circuits to reveal SIP errors.
- VI2000 InfiniStream virtual appliances provide critical troubleshooting insight into SIP handoffs between virtualized servers where the traffic does not make it onto the wire.

Business Value

- Generates reports that foster effective internal communication between different departments of IT, creating greater collaboration.
- Provides daily tool for NOC operators to begin the problem isolation process, which leads to quicker MTTR.
- Provides proactive monitoring in voice & video environment needed for a SIP trunking consolidation.
- Lowers quantity of dropped calls.
- Assures quality of voice calls in call centers and retail stores.

Global Technology Innovator Assures Unified Communications Services Performance with NETSCOUT

nGeniusONE Servers, nGenius Unified Communications Co-Resident Licenses, and nGenius Infinistream Appliances Help Optimize Voice & Video Environment

Customer Profile

As one of the world's leading technology innovators, this company has built its success on designing, building and marketing a wide array of technology products for business and commercial use. They have developed a passionate and highly loyal customer base over the years and have very strong financials. The company uses a diverse go-to-market strategy that includes online sales, distributors and retail stores.

Business Challenge

The IT teams responsible for supporting the company's global voice and video infrastructure faced significant challenges due to the high volume of communication outages, dropped calls, and poor call quality within call centers and across its numerous retail stores. With thousands of inbound calls from customers seeking technical support, new product sales and internal conversations, supporting the company's existing Session Initiation Protocol (SIP) trunking deployment proved problematic. These unified communication (UC) issues led to a noticeable drop in customer satisfaction scores, which have long been a strategic pillar of the company's iconic brand.

Since converting to a SIP trunked topology, IT has struggled to triage and isolate connection issues and voice quality problems, even after a wholesale upgrade of all of their Session Border Controllers (SBCs). A variety of voice groups were tasked with routing calls through their aggregated SIP trunks, but because each group utilized different troubleshooting tools, there was a severe lack of correlation and communication across groups, which created inadequate and inefficient problem resolution. It was quickly recognized that a single tool that all teams could utilize to identify issues, share reports, and uncover trend issues was desperately needed. Such a tool would allow for the consolidation of triaging efforts, enabling all teams involved to view the same data and be on the same page.

This single tool would also have to be SIP aware to provide deep SIP troubleshooting and analysis, advanced mean opinion score (MOS) scoring and voice monitoring.

NETSCOUT Solution

In order to address its UC issues, the company turned to NETSCOUT® to gain critical traffic insights needed to troubleshoot and triage voice and video problems. A combination of nGeniusONE servers, nGenius Unified Communications co-resident licenses, and nGenius Infinistream appliances were deployed in key data centers to extend visibility into the company's audio signaling traffic. NETSCOUT's fixed instrumentation was placed at the network ingress points to the SIP server farms, behind SBCs, and between sites on Multiprotocol Label Switching (MPLS) egress circuits to reveal SIP errors. In addition, VI2000 Infinistream virtual appliances provide critical troubleshooting insight into SIP handoffs between virtualized servers where the traffic does not make it onto the wire.

Business Value

As a result of the NETSCOUT solution, the IT teams have access to traffic insights that enable rapid triage of SIP signaling issues. They are now able to identify the source of SIP 406 errors, and isolate problems between VoIP network components, SBCs, SIP servers, and end-user devices. They can conduct call quality analysis for the Real-Time Transport Protocol (RTP) payload of customer calls and establish MOS scores for inbound calls, to better understand customer call quality complaints. The company can perform capacity analysis of VoIP traffic relative to other application protocols moving in and out of the data centers and can conduct forensic analysis of calls utilizing the packet storage and ASRs on the Infinistreams.

The NETSCOUT solution generates reports that foster effective internal communication between different departments of IT, creating greater collaboration. It also provides a daily tool for network operations center (NOC) operators to begin the problem isolation process, which leads to quicker mean-time-to-repair (MTTR).

Together, the company and NETSCOUT have created efficiencies and streamlined UC operations by:

- Delivering an enterprise-scale tool that provides a single place for voice engineers to monitor and troubleshoot the company's voice environment.
- Allowing existing reporting gaps to be filled, including SIP error messages and offering color and detail around these types of reports.
- Providing a real-time alert system to notify interested parties about issues that have occurred on the network and voice environment.
- Offering a historical tool where engineers can look back on issues that have recently happened to grab traces for their own purposes or for third-parties in the company's retail environments.
- Providing proactive monitoring in Voice & Video environment needed for a SIP trunking consolidation project.
- Improving and/or avoiding dropped calls, as well as assuring quality of calls.

NETSCOUT assures superior UC service delivery, enabling IT teams to ensure reliable communications and the highest quality customer experience.



Americas East

310 Littleton Road
Westford, MA 01886-4105
Phone: 978-614-4000
Toll Free: 800-357-7666

Americas West

178 E. Tasman Drive
San Jose, CA 95134
Phone: 408-571-5000

Asia Pacific

17F/B
No. 167 Tun Hwa N. Road
Taipei 105, Taiwan
Phone: +886 2 2717 1999

Europe

One Canada Square
29th floor, Canary Wharf
London E14 5DY, United Kingdom
Phone: +44 207 712 1672

NETSCOUT offers sales, support, and services in over 32 countries.

For more information, please visit
www.netscout.com or contact NETSCOUT
at 800-309-4804 or +1 978-614-4000

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