

Visibility for Optimizing Performance and Availability of Zoom Collaboration Services



The COVID-19 pandemic, and subsequent directives for people to work from home for weeks and months at a time, has irrefutably changed the importance and use of collaboration platforms. Overnight, what people once said over a cube wall was exchanged over instant messaging. In-person meetings became video conferences.

Some enterprise organizations had collaboration technologies in place and established, although perhaps not everyone in the company had access or authorization to use the services, as they didn't necessarily require it. However, with COVID lockdowns impacting organizations on a global scale, virtually every employee needed such services, and quickly, for business continuity.

Zoom has become a household name over the course of the first half of 2020, best known for video conferencing services that are easy to use and execute. The number of people using Zoom has seen exponential growth from 10 million daily meeting participants in December 2019 to 300 million in April 2020 (Business of Apps). Businesses, government agencies, and school systems were all quick to adopt Zoom for communication among employees working and students learning from home.

Use of Zoom during the Coronavirus Pandemic has exploded from 10 million daily meeting participants in December 2019 to 300 million in April 2020.

While many organizations are slowly bringing employees back to offices, it is unlikely to be a complete return for some time, as noted by several high-tech companies like Google and Twitter. For enterprises using Zoom for collaboration and video conferencing to continue to facilitate business continuity and ensure the personal touch between home- and office-based employees, service quality is a priority. For those enterprises that utilize VPNs without split tunneling, Zoom traffic will go through ISP links and over the corporate VPN, which makes impact on these corporate resources an important consideration as well.

Our Approach

NETSCOUT's approach to end-user experience, application performance, and service assurance monitoring is built on a foundation of high-quality data and real-time analytics. NETSCOUT® solutions monitor application packet data across the network to ensure services themselves, in this case, Zoom, is available and operating efficiently.

Based on packet data, NETSCOUT's patented Adaptive Service Intelligence™ (ASI) technology provides the most robust data source available to ensure that critical Zoom video conference services are delivered from the cloud through to users in corporate facilities or home offices without delay or disruptions. By monitoring the actual application packets, as well as service dependencies (such as Zoom, DNS, HTTPS), NETSCOUT smart data fuels our nGeniusONE® Service Assurance solution to provide continuous visibility and automated analysis of performance issues across connected services.

NETSCOUT analytics are the industry-leading standard for scalability and ease-of-use, enabling proactive service triage to keep Zoom, as well as other business services, running smoothly, reliably, and unimpeded, end-to-end. Should an issue emerge in the performance of Zoom collaboration services, troubleshooting capabilities leveraging the logical, intuitive workflows in NETSCOUT solutions have the effect of reducing Mean-Time-To-Resolution (MTTR) to quickly pinpoint the source of the problem and restore service to optimal performance. From a proactive perspective, monitoring of the internet access links and VPN activity for all services coming into data centers provides details on activity and trends for managing bandwidth and capacity to avoid service-impacting bottlenecks and slowdowns that could impact performance of services including Zoom.

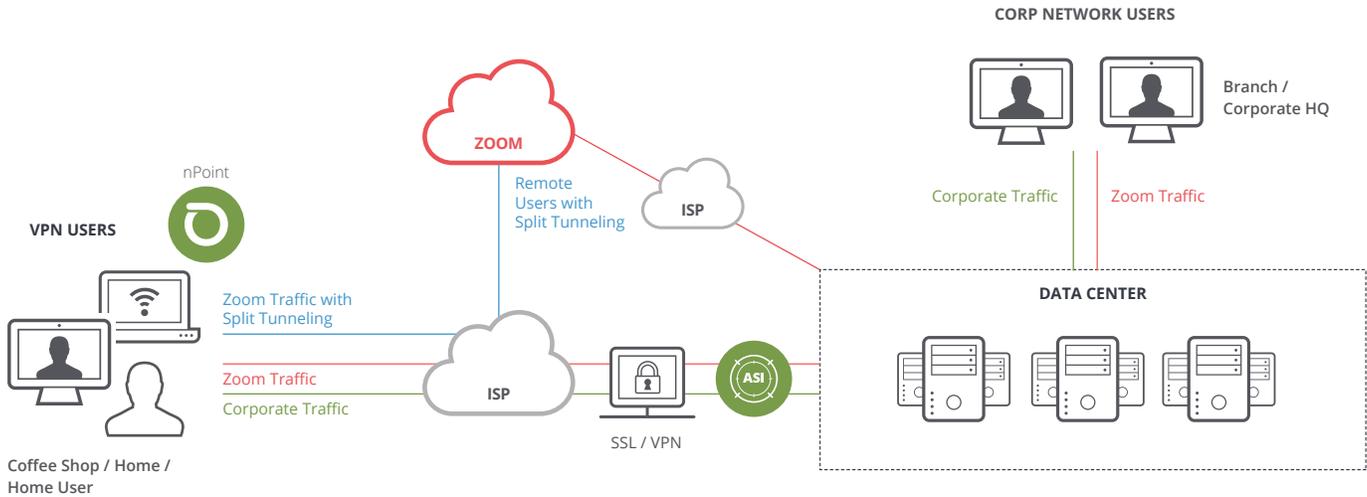


Figure 1: Traffic to Zoom from users on the corporate network goes through the data center and over internet (ISP) to Zoom. For companies not using split tunneling, remote users will come through the ISP and over the corporate VPN and data center and then back out to Zoom. NETSCOUT provides visibility to the Zoom traffic that traverses the corporate network. Companies that use split tunneling will not see remote users' Zoom traffic as it will not come through the data center.

Our Solutions

NETSCOUT delivers solutions that support both the wired and wireless infrastructures in enterprises and educational institutions, including visibility to support quality end user experience with Zoom services. The nGeniusONE platform provides real-time visibility into both IP-based business services along with contextual workflows to speed problem resolution, making it easy for Level 1 responders to use while still being powerful for experts to operate. nGeniusONE leverages rich packet data for extracting performance metrics. With scalability to support up to 100Gbps speeds, the nGeniusONE platform is designed for use in both physical and virtual, as well as public and private environments, supporting the world's largest and most-demanding enterprise, government, higher education, and service provider organizations.

Rather than look at individual elements in isolation, nGeniusONE provides an overarching view into the performance characteristics of the components associated with service delivery both on premises and in the cloud. This exposes underlying

service dependencies between such services as E-commerce applications, unified communications and collaboration services, individual applications servers, backend databases, and other service dependencies, such as DNS, DHCP, and LDAP protocols. It even identifies important configuration details such as the quality of service (QoS) class assigned to Zoom and other services to ensure priority delivery of latency intolerant applications. This helps IT operations to more effectively pinpoint the root cause of issues and manage quality delivery of services to end-users in corporate or home offices, dorms or classroom-buildings, throughout multi-cloud-based data and contact centers.

As Zoom is part of today's ever-evolving IT ecosystem, visibility is needed into end-user experience to ensure the availability, reliability, and performance of this mission-critical collaboration service across your multi-cloud environment, over Ethernet or Wi-Fi, from wherever employees, partners, instructors, or students need access. To address the challenge of managing user experience when it also depends on remote locations, dorms, and home networks, nGeniusPULSE provides the ability to run

synthetic business transaction tests using instrumentation called nPoints deployed at the user site, even when users are not active. Options include a small, purpose-built hardware device or virtual instrumentation that can be deployed on a remote-user's laptop (Windows or Linux support), for Ethernet and/or WiFi analysis – ideal for branch office and home-based users.

Depending on how your network is architected and how your users connect to Zoom will dictate the best ways nGeniusONE and nGenius®PULSE can be helpful in your environment.

Value of Zoom Monitoring to Enterprises

For educational institutions and enterprise organizations, NETSCOUT solutions are designed to ensure IT services supporting business and collaboration services, and, in particular, Zoom services, run smoothly through proactive end-user experience monitoring and service assurance. If problems do arise, NETSCOUT solutions ensure the proper information is available to troubleshoot them quickly to keep communications flowing. With NETSCOUT, companies can:

- Proactively triage and reduce MTTR for Zoom services with performance degradations before they become an issue to the business.
- Improve collaboration and reduce complexity with third-party ISP vendors when troubleshooting performance and availability issues with Zoom at headquarters and data center locations.
- Reduce the time to pinpoint mis-configurations such as QoS class assignments to the data center, headquarters, or an ISP.
- Ensure efficient operation of not only Zoom, but also other business-critical applications, such as CRM and ERP, whether used locally or distributed across the infrastructure.
- Quickly identify the cause of an issue as the Wi-Fi network, the ISP, a device, the wired network, or the service itself with nGeniusPULSE.



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