

nGeniusONE Solution for Microsoft Lync and Skype for Business

nGeniusONE Solution Provides Fast Triage for Microsoft Unified Communications and Collaboration

Organizations are implementing Microsoft® Unified Communications and Collaboration (UC&C) Services such as Lync® and Skype for Business, to improve communications, productivity and collaboration among their employees, partners, and customers. As users become dependent on these collaboration services, IT is expected to deliver UC&C services without disruptions and assure users a high quality end user experience. In order to deliver on this promise, IT teams need a performance management solution that can help quickly discover the root causes for service quality issues.

Managing complex environments such as Microsoft Lync and Skype for Business is not easy and the need is not met by simple point tools. The nGeniusONE® Service Assurance platform is uniquely capable of

correlating Microsoft Quality of Experience data with real-time call quality data extracted at strategic locations in the network. This information provides a comprehensive view and deeper insights into the root cause of service quality issues that can occur. Coupled with proactive application and network analysis, service quality alerts, and the state of the art continuous monitoring, UC&C and IT personnel can quickly resolve service quality issues before they become apparent to users.

The nGeniusONE platform is powered by Adaptive Service Intelligence™ (ASI) technology, the patented Deep Packet Inspection engine which generates highly scalable metadata that enables a comprehensive view of UC&C service performance across complex multi-tier, multi-vendor, multi-location Microsoft UC&C environments. Using the efficient data provided by ASI, performance metrics can be viewed by a range of keys such as location (community of users), servers, users, applications, etc. This enables the

nGeniusONE platform to offer an efficient top-down approach to problem identification, service triage, and resolution. Using contextual workflows, the precise location and the source of service degradation can be identified with system wide visibility not available with other tools. This ultimately reduces mean time to resolution (MTTR).

Microsoft UC&C Performance Issues Solved by nGeniusONE Solution

IT & UC&C organizations need granular data for assuring a consistent user experience. Since the Microsoft UC&C clients send call quality reports at the end of every call, it can be difficult to isolate and detect patterns of intermittent problems as they occur. Operations teams need granular data to see the relationships and interrelated nature of the overall network infrastructure, application services, signaling and enabling protocols necessary to deliver real-time services like Microsoft UC&C.

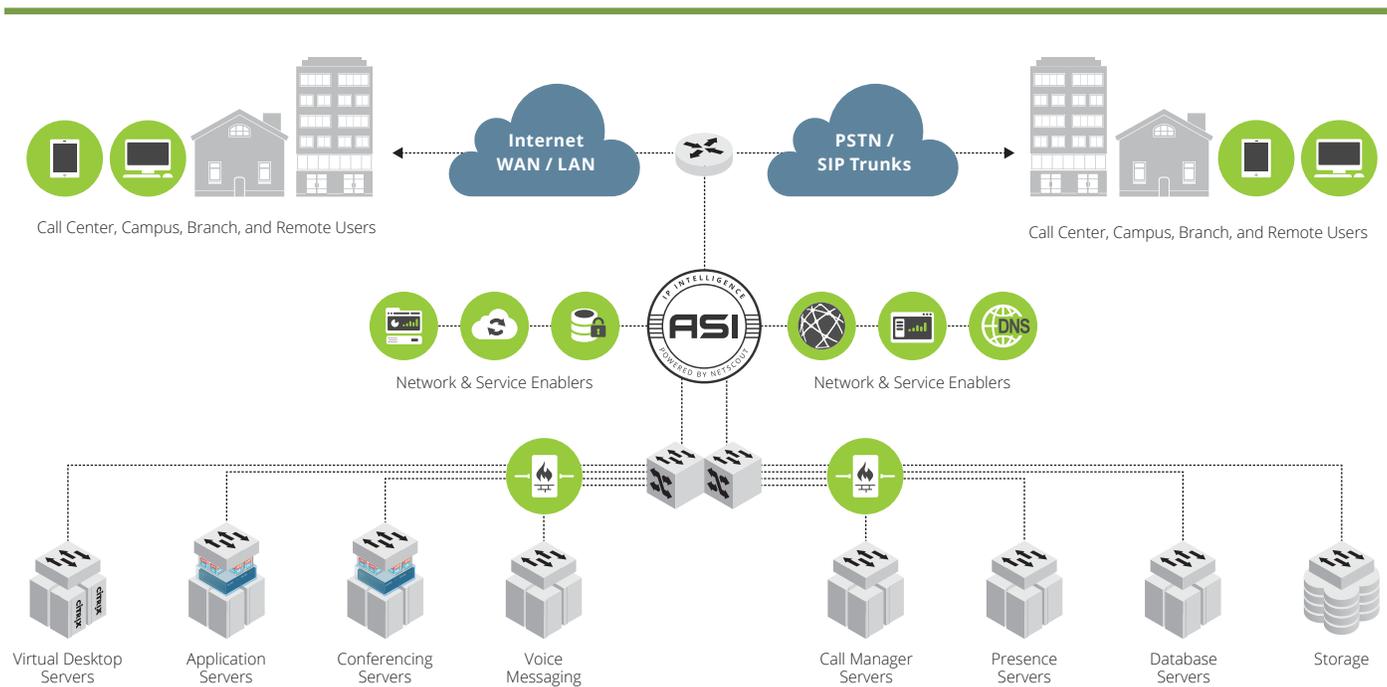


Figure 1: The nGeniusONE platform correlates Microsoft QoE Monitoring Server metrics with real-time granular per-user, per-session assessments from midpoint locations.

UC&C and network managers typically have to deal with managing distributed, multi-vendor platforms operating across multiple locations spanning several geographical areas. In such environments, manually correlating data from disparate sources to find the root cause of problems becomes extremely difficult and may not provide the necessary visibility into the end-to-end behavior of both network and application on the delivered call quality.

Finally, Microsoft UC&C depends on data applications such as Microsoft SharePoint®, Microsoft® Exchange, Active Directory®, DNS, DHCP, etc., for delivering UC&C services. Consequently, IT organizations must gain unified visibility into how voice, video, and data applications impact each other to effectively manage UC service performance.

The nGeniusONE platform supports common call signaling problems related to registration, call setup, teardown latencies, response times, errors and failures. It also helps identify other network-related issues such as improper load balancing and SIP trunk interoperability. As a result, the nGeniusONE platform provides visibility into factors contributing to call quality degradation such as:

- QoS tags, VLAN, negotiated CODECs on a per segment basis
- Mean Opinion Score (MOS) values based on IP network impairments as well as based on conversational quality
- Precise location and source of service degradation such as one-way audio, echo, noise level using advanced visualizations such as network-based views, bi-directional streams, community-based views, and listing of all conversations for a single user

nGeniusONE Platform

The nGeniusONE platform delivers granular UC&C application-specific metrics for voice and video session transmission, and the conversational quality to characterize voice and video service performance and the true user experience.

The nGeniusONE platform uses NETSCOUT Intelligent Data Sources such as the InfiniStream appliance and nGenius Lync Data Collector to provide IT with end-to-end visibility into the behavior and the quality of Microsoft UC&C services. These intelligent data sources dynamically measure and extract granular call and session quality as well as user experience metrics in real-time from active voice and video media streams. Deployed along the call path, at traffic aggregation points, and at points of demarcation that may include soft-client, hard phones, multiple vendor network devices and IP Telephony equipment, these highly efficient data sources provide critical information necessary to assure the service quality of voice and video services operating across complex, multiple vendor, multi-location environments.

The nGeniusONE platform correlates midpoint measurements with the data collected from Microsoft QoE Monitoring Server, VoIP call controllers, and Session Border Controllers (SBCs) to provide a unique view into the service behavior affecting users. Additionally, the platform can extract Skype for Business diagnostic data through the integration with Microsoft's software-defined networking (SDN) API. As a result of this deeper integration, the nGeniusONE platform presents performance metrics on an end-to-end basis using an easy-to-view network-oriented view, that displays performance and call quality metrics for all UC&C service components deployed along the call path. Using this data presentation model, all service teams supporting the network, voice and video applications, and the endpoint devices can effectively collaborate to quickly triage and isolate UC&C performance problems, precisely locate the impairment anywhere in the network, and rapidly resolve problems before users are disrupted.

By leveraging the correlated metrics along the call path, the IT organization can move from a reactive to a more proactive service delivery management approach. To address

any specific customer complaints about call quality, the nGeniusONE platform helps first-level support staff make an informed decision based on facts and quickly escalate the problem to the right team member for fast resolution.

Additionally, providing UC&C visibility extends the overall investment value of the nGeniusONE platform from NetScout. The nGeniusONE platform provides a unified view of interdependency of Microsoft UC&C servers with data applications and brings the performance management of all network-based services such as voice, video, and data under a single point of visibility.

Benefits of the nGeniusONE Solution

- **Triage Issues Quickly** – Decreases MTTR for Microsoft Lync and Skype for Business services with real-time, end-to-end, and comprehensive service visualization that enables IT teams to quickly triage service issues by pinpointing the source of voice and video call quality problems.
- **Increase Reliability** – Provides visibility into true user experience by measuring call quality performance due to impairments observed in the network transmission, media traffic and call signaling.
- **Improve IT Team Collaboration** – Using a common ASI dataset, the platform improves time to knowledge by enabling collaboration between network, application, and UC&C teams for resolving voice and video service delivery problems.
- **Single Solution Supports Entire UC Service** – Enables proactive management of Microsoft Lync and Skype for Business service quality alongside other IP Telephony services.
- **Investment Protection** – Leverages the same nGeniusONE platform for simultaneous performance management of all Microsoft applications, including Lync, Skype for Business, Exchange, SharePoint, and Active Directory, providing unmatched investment protection and shared data.



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