

nGeniusONE Platform for Cisco Unified Communications and Collaboration

nGeniusONE Platform Provides Fast Triage for Cisco UC/Jabber

Cisco Unified Communications (UC) is the IP Telephony of choice in many enterprise environments, with Cisco Jabber often adopted for collaboration services. Users become dependent on Cisco UC technology for voice, video, presence, instant messaging, and contact availability and quickly become intolerant of any disruptions. To reduce time to resolve problems before, during, and after Cisco UC/Jabber rollouts and upgrades, Unified Communications and Collaboration (UC&C) and IT teams need a performance management solution that can quickly get to the source of the issue.

Implementing Cisco UC and Jabber deployments in complex UC&C environments is a challenge not addressed by simple point tools. Jabber performance issues (e.g., users unable to login, off-line status indicator impairments) can be difficult to visualize and troubleshoot without proper visualization and performance analytics.

In leveraging smart data generated by NETSCOUT's patented Adaptive Service Intelligence™ (ASI) technology, the nGeniusONE® Service Assurance platform is uniquely capable of managing of relating call data record (CDR) data from Cisco UC&C, with real-time call quality performance monitoring at strategic network locations. This information provides a comprehensive view and deeper insights into the root cause of service quality issues. nGeniusONE's proactive application and network analysis, service quality alerts, and continuous monitoring enable IT teams to quickly resolve service quality issues before they become apparent to users.

nGeniusONE's smart analytics for UC&C business applications are based on NETSCOUT® smart data that is well-structured, contextual, available in real time, and based on pervasive end-to-end visibility across the entire enterprise. nGeniusONE's smart analytics leverage this smart data to provide a comprehensive view of service performance across complex multi-tier, multi-vendor, multi-location Jabber environments. With nGeniusONE, UC&C performance

metrics, including those associated with Cisco UC and Jabber technology, can be viewed by a range of keys, such as location (community of users), servers, users, applications, etc. This enables nGeniusONE to offer an efficient top-down approach to problem identification, service triage, and resolution. Using contextual workflows, the precise location and source of service degradation can be easily identified with the help of system-wide visibility. This ultimately reduces mean-time-to-resolution (MTTR).

Solving Cisco UC&C Issues

IT organizations need granular data for assuring a consistent user experience. Since the Jabber 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. IT 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, including voice, video, persistent chat, WebEx, etc.

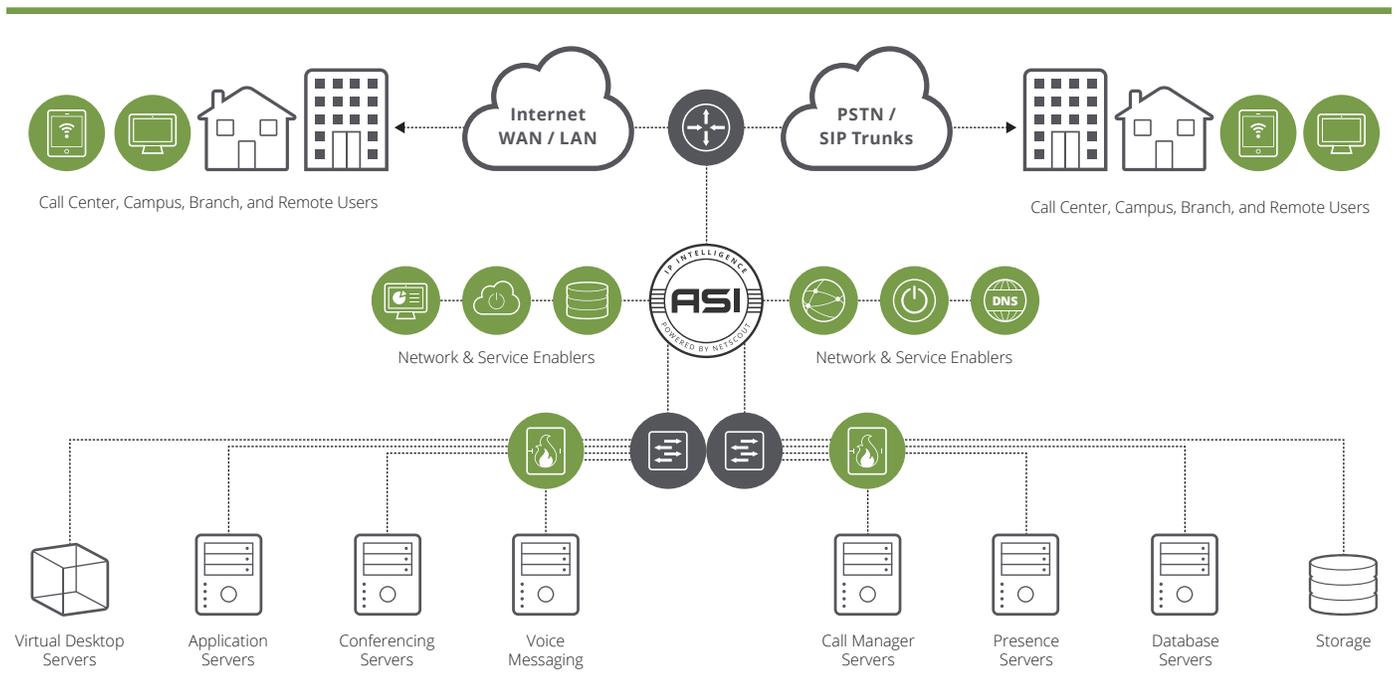


Figure 1: The nGeniusONE platform correlates Cisco CDR data with real-time granular per-user, per-session assessments from midpoint locations.



As organizations deploy Cisco UC&C in large campus environments, network managers generally must deal with managing distributed, multi-vendor platforms operating across numerous 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.

In addition, Cisco UC&C services depend on other servers (e.g. Cisco Unity®, Microsoft® Exchange, Active Directory®, DNS, DHCP, TFTP, 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&C service performance.

The nGeniusONE platform addresses common call signaling issues that may impact Cisco UC and Jabber services (e.g., registration, call setup, teardown latencies, response times, errors, and failures) and triages other network-related issues (e.g., load balancing, SIP trunk interoperability). By providing full visibility, nGeniusONE enables IT teams to precisely locate the source of voice and video call quality issues. It also provides visibility into some of the common media-related issues, including:

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

UC&C Visibility and Monitoring

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 smart visibility platforms (e.g., InfiniStreamNG™ platform, Unified Communications Collector, and vSCOUT™ & vSTREAM™ solutions for Hybrid Cloud environments) to provide IT with end-to-end visibility into the behavior and the quality of Cisco UC and Jabber services. These smart data sources dynamically measure in real-time and extract granular call and session quality as well as user experience metrics from active voice and video media streams. NETSCOUT smart visibility solutions are deployed at key locations (e.g., 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) to provide critical information necessary to assure the service quality of voice and video services operating across complex, multi-vendor, multi-location environments.

Within the Cisco UC&C environment, nGeniusONE correlates midpoint measurements with the data collected from Call Data Records (CDRs), VoIP call controllers, and Session Border Controllers (SBCs) to provide a unique view into the service behavior affecting users. nGeniusONE then presents the performance/quality of experience metrics (e.g., volume level, speech distortion, delay, echo, and noise) in an intuitive, network-oriented visualization, displaying correlated metrics from along the service delivery chain. Using this unique data presentation model, all service teams supporting the network, voice and video applications, and endpoint devices can effectively collaborate to quickly triage and isolate voice-/video-related 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 proactive service delivery management approach. To address any specific customer complaints about call quality, nGeniusONE helps the 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, nGeniusONE platform provides a unified view of interdependency of Cisco Call Manager servers.

Benefits of nGeniusONE for Cisco UC&C

- **Triage Issues Quickly** – Decreases MTTR for Cisco UC and Jabber 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 Collaboration** – Using ASI-generated smart data, nGeniusONE improves mean-time-to-knowledge by enabling collaboration between network, application, and UC&C teams for resolving Cisco UC&C/Jabber service delivery problems
- **Single Solution Supports Entire UC&C Service** – Enables proactive management of Cisco Jabber service quality alongside other IP Telephony services

LEARN MORE

For more information about NETSCOUT Unified Communications Visibility and Monitoring solutions, visit:

<https://www.netscout.com/solutions/unified-communications-monitoring>



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