

# Managing the availability and reliability of VoIP systems

## Features & Benefits

- » Offer rich standardized QoS and QoE performance metrics
- » Measure and analyze per-call CDRs, QoS, and QoE metrics of VoIP applications and services in real-time
- Real-time alerts of various QoS metrics replacing manual troubleshooting processes with proactive discovery, classification, and analysis VoIP protocols
- » Rich Executive dashboards and comprehensive reports for automated and optimized workflows
- » Reduce mean-time to identify, analyze, and resolve VoIP issues
- Take action based on business reporting in multiple timescales (from sub-seconds to months)
- » Drill-down to packet-level information
- » Compare media traffic with control traffic for true insight
- » Monitor moment-to-moment quality of distributed services with dynamic, customizable dashboards
- » Plug-and-play device with minimal deployment, training, and no network downtime
- » Intuitive web-based interface

To ensure the uninterrupted availability of VoIP infrastructure for key business requirements, it is essential to have constant visibility into enterprise-wide VoIP installations. Additionally, it is crucial to maintain both long-term and real-time network insights to verify that VoIP systems are continually available and operationally reliable.

## Challenge

VoIP has become widely used by all kinds of consumers, ranging from computer enthusiasts to full-scale enterprise, educational, and government organizations. VoIP technology significantly reduces communication costs. However, achieving and maintaining call quality comparable with PSTN carrier networks is another matter.

When operating optimally, VoIP network infrastructure can provide operational efficiency and cost savings. However, there are numerous potential problems that may arise because of compatibility or networking problems that could jeopardize internal or external communication experiences. Historically, "Throwing bandwidth at the problem" has been the panacea despite coming at a significant cost. With these shortfalls in mind, a better, cost-effective, and more long-term solution was inevitable.

### Solution

NIKSUN NetVoice is the essential tool to monitor and maintain optimal network operation of your VoIP infrastructure. The NIKSUN solution monitors the network and alerts the administrator when abnormal network behavior or deterioration occurs, providing essential management and trending reports (periodic or on-demand) to plan for future network needs.

Globally dispersed operations monitored by NetVoice can be centrally managed and maintained, using the NIKSUN NetOmni<sup>™</sup> platform. Operators can monitor individual sites or gather traffic statistics across all monitored sites, while role-based access control ensures secured access to data only by those who need it. Leveraging NIKSUN's patented technologies, NetVoice uniquely differentiates itself from the market by allowing network operators and organizations to investigate historical events and trends, and replay communication as needed for business integrity.

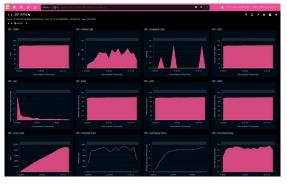
### How NetVoice Works

NetVoice leverages NIKSUN's patented technology to create a rich set of metadata in real-time at data rates of 100Gbps and higher with raw packet storag. By leveraging NIKSUN's network metadata to monitor and analyze real-time or historical events, trends, or thresholds, NetVoice delivers exceptional Mean Time to Resolution (MTTR) to customers. NetVoice assists in ensuring that VoIP implementations maintain the targeted reliability and availability

metrics. The solution supports alarms and alert notifications when user-defined thresholds are violated.

Analytics, coupled with the ability to produce actionable insight within a variety of timeframes, positions NetVoice as a crucial solution that caters to the business needs of both senior management and operational staff for monitoring, maintaining and planning infrastructure needs.

- » NetVoice is a modular solution that captures and stores VoIP diagnostic information for extended periods of time; extracts key metrics/trends in converged environments and represents them in reports. These reports can be analyzed by management to understand how changes in the VoIP network affect the larger enterprise network and vice versa.
- » NetVoice eliminates the manual element in troubleshooting by providing all relevant statistical and packet information on a per-call basis (MOS, jitter, delay, loss, CDR, QoE, etc.), minimizing the Mean Time to Discover and resolve root-cause of VoIP incidents. Tools, like color-coded multistage bounce diagrams, provide visual diagnostics of delay experienced in the network.
- » NetVoice improves operational processes by facilitating real-time, moment-to-moment awareness of the availability of VoIP specific services and applications, with granular views down to microseconds.
- » NetVoice offers capabilities to correlate users' media and signaling transactions, QoS and QoE values.
- » We offer rich VoIP QoS and QoE metrics such as SEER, ASR, NER, ISA, MoS, Jitter, Loss, and many more.
- » NetVoice supports real-time alarms and notification when user-defined thresholds are breached.
- » When integrated with NetOmni (NIKSUN's enterprise central management solution), multiple geo-dispersed sites (call volumes, applications and call statistics) can be monitored and utilized from a central location.
- » Complete end-to-end bounce diagrams visualize inter-site traffic.



SIP KPIs Report

## **Technical Information**

- » Network Interfaces Supported (Full-duplex, Half-duplex) - 1GigE (copper/fiber), 10GigE (fiber) or 20/40/60/80/100GigE (fiber)
- » Protocols Supported All major protocols are supported. For more variants, please contact NIKSUN's Systems Engineering organization.
- » Codecs Supported All major codecs are supported. For more variants, please contact NIKSUN's Systems Engineering organization.
- » Integration Authentication TACACS+, RADIUS, LDAP, Active Directory, and CAC. All NIKSUN products integrate with NIKSUN NetOmni<sup>™</sup> Full Suite for enterprise-wide data aggregation, reporting, and visualization.
- » Package Availability NetVoice is available as an optional package.

#### Interested in learning more?

For more information, please visit us online at *niksun.com*.



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