



SOLUTION HIGHLIGHTS

- Proactively assure high service quality
- Monitor SLA compliance for VIP users
- Minimize churn and retention costs
- Improve problem detection and resolution processes

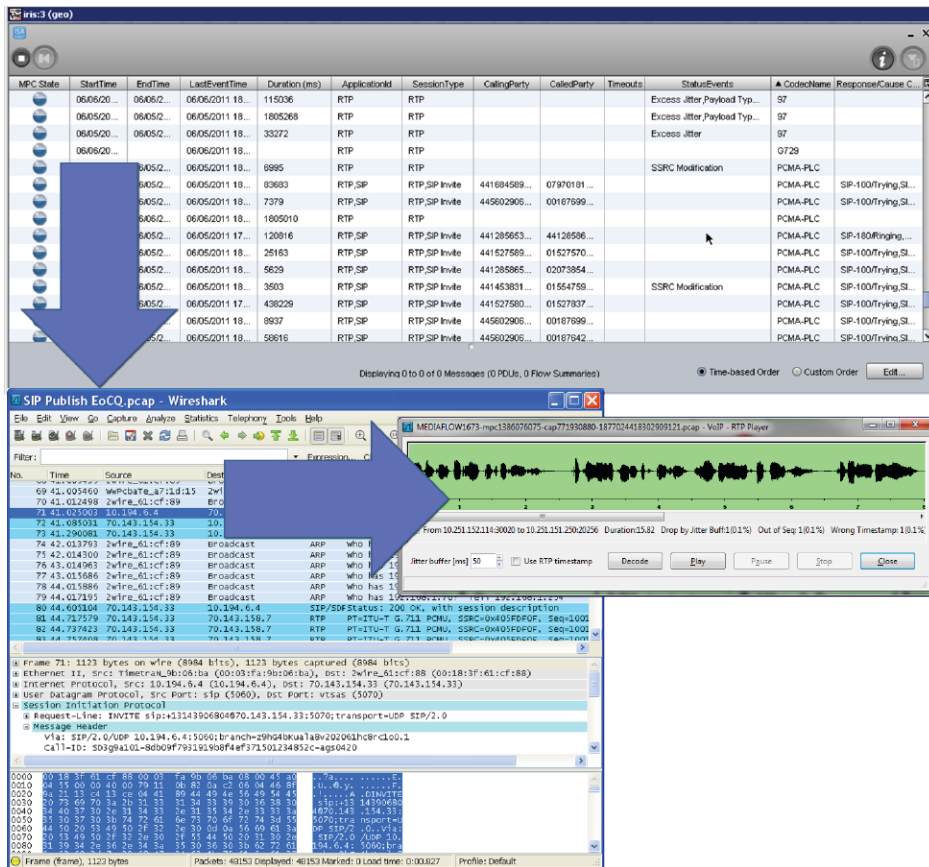
Voice Assurance

Increasing the Profitability of VoIP and IMS Services

Meet Voice Quality Expectations to Protect Revenue Streams

Migrating voice services to an IP-based network can deliver significant cost savings, as well as provide an opportunity to enhance commercial offerings. Taking advantage of IP/IMS platform capabilities enables service providers to support advanced communication features and IP-based “voice features” that add value to both data and video.

New offerings will give operators a portfolio that can compete with lower-cost and over-the-top (OTT) providers and likely lessen the sting of declining voice revenues. Call quality will still continue to be a key differentiator. To help operators meet the high voice quality expectations of subscribers, NETSCOUT offers a solution designed to overcome the unique challenges introduced by Voice over IP (VoIP) and to protect service quality and critical revenue streams.



VoIP Quality Challenges

Competition for Resources

- New environment lacks dedicated “circuits” that deliver predictable quality.
- Unrelated, unpredictable traffic on the network can impact voice service performance and retainability.

Packetized Voice Sensitivity

- The packetization of voice and transport quality can result in jitter, loss, out-of-sequence delivery and variable end-to-end delays.
- Packet loss concealment (PLC) techniques cannot eliminate some media quality damage caused by late packets.

End User Behavior and Expectations

- Voice, video and data access occurs simultaneously from multiple devices.
- Users expect to download files, email and surf the web while making voice calls without impact to the quality and service.

With Iris Session Analyzer, relevant information is accessible from a single application. Easily explore the details behind summary QoS metrics or extend media analysis with integrated Wireshark voice playback capabilities for authorized personnel. Export results for sharing with other departments for accelerated analysis.

Proactively Monitor VoIP Service Quality

Whether you are in the process of migrating existing customers to IP services, launching new offerings or turning up high-value enterprise accounts, voice quality, regardless of the underlying delivery architecture, must be maintained and protected. NETSCOUT’s real-time monitoring and alarming capabilities empower users with timely and actionable information required to effectively meet voice service quality expectations.

Iris Session Analyzer

Iris Session Analyzer features an all-in-one call and media troubleshooting workflow and the ability to analyze signaling and media across multiple access technologies and protocols. Advanced multi-protocol correlation capabilities ensure that all associated messages are collected for analysis in real-time. The collection, correlation and display of signaling and media in the same GUI enables at-a-glance association of related messages to determine where and when degradation occurs.

- Expand summary mean opinion scores (MOS) to reveal quality of service (QoS) metrics
- Play back captured media with a single click
- Export capabilities enable sharing of pertinent information with other organizations

Alarming and Reporting

With service modeling capabilities and fast-alarming dashboards, operators can define and proactively monitor unique voice services based on customized criteria. Flexible voice service definitions enable laser sharp focus on the calls and revenue streams that matter most, for better monitoring of SLAs, performance KPIs, node health and MOU.

Traffic Analysis

In an IP environment, time and sequence-sensitive voice packets share the network with latency-tolerant data applications. Bandwidth congestion can cause a variety of errors which in turn can negatively impact the delivery of packetized voice. An operator's ability to understand how resources are being used is increasingly important. In these situations, traffic analysis can help mitigate identified risks and provide real-time visibility to metrics that support effective link, node and system management.

One Media Assurance System for Multiple Technologies

- One system to learn, operate and maintain
- Supports TDM, IP and other network technologies including mobile and IMS
- Scales to large network deployments and services beyond voice

Optimized Call and Media Troubleshooting Workflow

- Rapid troubleshooting and isolation of issues
- A single, end-to-end view of signaling and media, regardless of media path complexity
- Sophisticated multi-protocol correlation across multiple technologies
- Integrated diagnosis of packetized IP issues (service access, media bearer setup and content delivery)
- Integrated media QoS/QoE leg-by-leg for fast isolation of degradation
- Integrated media analysis and playback

Intelligent Automation of QoE Analysis and Troubleshooting

- Dramatic reductions in troubleshooting time
- Test and collect results in real time without subscriber interruption

Demonstrating Value

Applied to a service provider's most pressing challenges, NETSCOUT's Voice Service Assurance solution may be used to address valuable use cases:

- Troubleshoot one-way audio and audio gap issues
- Prioritize resolution of business VoIP issues
- Troubleshoot reported "static and noise"
- Monitor key revenue-generating and regulatory services

Use case demonstrations and additional examples are available upon request.

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