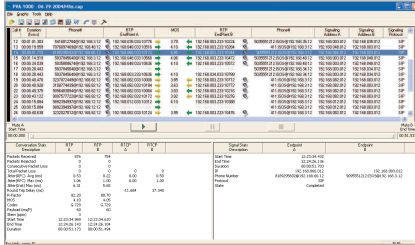


# JDSU PVA-1000 VoIP Analysis

## Advanced VoIP analysis and troubleshooting



### Key Features

- MOS and R Factor analysis
- Jitter and Packet Loss Analysis
- Audio Playback with multiple CODEC support
- Signaling Analysis with call trace
- Signaling support for SIP, Cisco SCCP, MGCP and DOCSIS/NCS
- Compatible with a wide range of JDSU test and analysis equipment
- Compatible with Wireshark (PCAP)
- Distributed Automated VoIP call capture agent option

### Applications

- IMS providers
- Enterprise IT departments
- Service Providers
- Call Centers
- Cable TV Voice providers

### PVA-1000 VoIP Analysis Software

VoIP has become a mainstream technology but troubleshooting still presents unique challenges. Problem identification and resolution can be complex and time consuming. This is aggravated by the intermittent nature of many VoIP issues. To address these problems JDSU created a Family of software products specifically designed to address the needs of VoIP support organizations.

The PVA-1000 VoIP Analysis Software is designed to identify problems with VoIP calls. Detailed call statistics for signaling and voice transport quality are combined with jitter, packet loss and signaling graphs to provide specific impairment analysis. Stereo playback with jitter buffer emulation and WAV file creation provide a real-world view of the users experience of the call.

With the PVA-1000 users have the tools needed to analyze VoIP capture files from a wide variety of sources. The PVA-1000 reduces the time and cost involved in analyzing and resolving VoIP problems resulting in improved customer satisfaction.

**PVA-1000 VoIP Analysis Features**

**Call Quality Analysis**

Each VoIP call in a capture file is automatically identified and evaluated for quality. Individual calls can be selected for detailed display of performance parameters such as signaling, jitter and packet loss. If only a portion of a call is available in the capture file the PVA-1000 can identify the RTP stream without the presence of signaling.

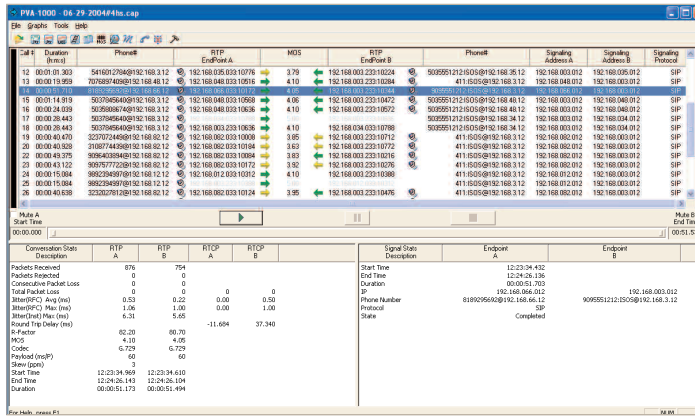


Figure 1 Main PVA screen

**Detailed Signaling analysis**

SIP, MGCP/NCS and Cisco SCCP signaling trace diagrams are displayed with the message exchange timing and result codes. A full protocol decode is available by simply clicking on one of the messages in the signaling ladder diagram.

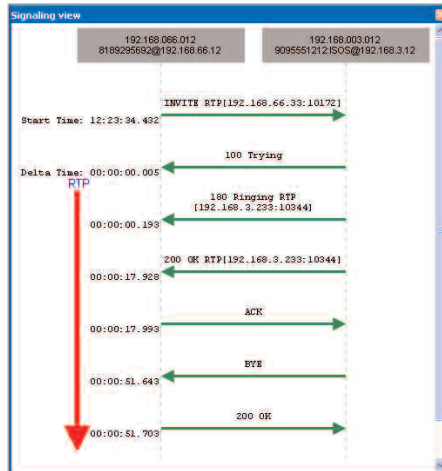


Figure 2 signaling messages exchange

**Jitter and packet loss graphs**

Jitters and packet loss graphs show the distribution of impairments throughout a call. A moving audio playback indicator helps identify the impact of these impairments on the audio quality.

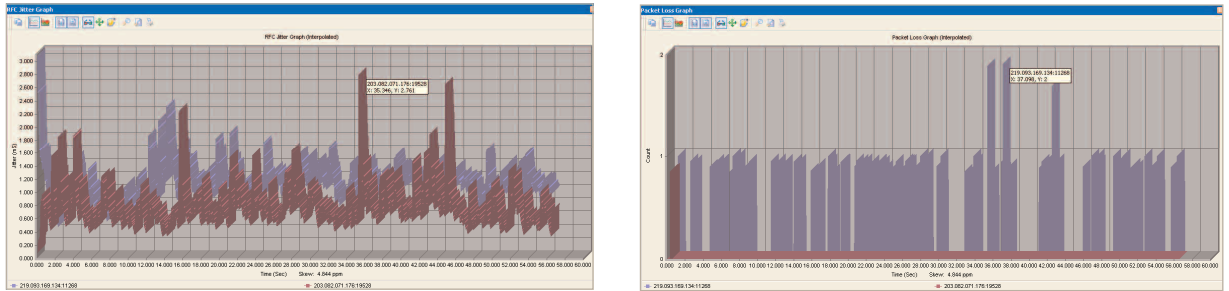


Figure 3 Jitter and packet loss graphs

**Audio playback**

Full stereo audio playback of VoIP calls allows analysis of the user experience of the call. Non-transport distortions can be identified and WAV files can be created for complete calls or selected portions of calls.

**Protocol decodes**

Full protocol decodes are provided for a wide range of signaling and media transport protocols including: Cisco SCCP, SIP, H.323, MGCP, NCS, MEGACO, H.248 and RTP/RTCP.

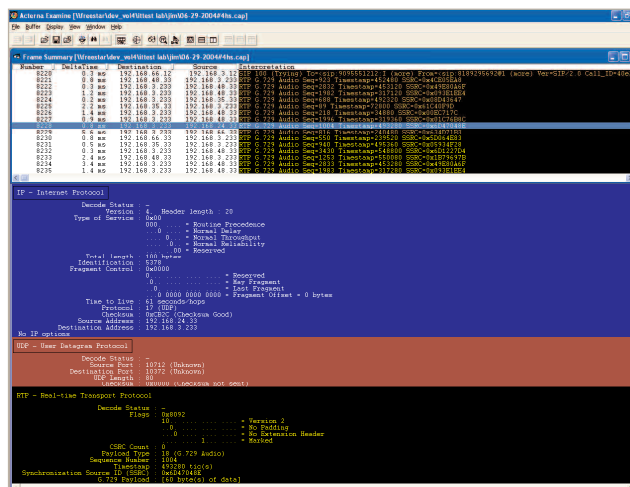


Figure 4 Screen graphic of Examine

**Reporting**

A full reporting capability is provided with the PVA-1000 VoIP Analysis software. Summary and detail reports are available for any analyzed capture file. Reports are fully formatted and ready for print. A conversion capability allows reports to be saved in a variety of standard formats.

## Complementary Products

### PVA-1000 Capture Agent

PVA-1000 Capture Agents automate the process of capturing poor performing VoIP calls. Distributed agents eliminate the need to travel to remote sites and provide truly automated MOS based capture of poor quality VoIP calls.

### DA-3400 and DA-3600A Data Network Analyzer

The DA-3400 is a full feature LAN/WAN/ATM network analyzer capable of real-time VoIP monitoring and analysis. Capture files of up to 1 Gigabyte may be created and capture files are compatible with the PVA-1000 VoIP Analysis Software.

### NetComplete Service Assurance for VoIP

NetComplete Service Assurance for VoIP provides true end to end visibility into the customers quality of service. Continuous monitoring and correlation of service and network performance is coupled with robust sectionalization and segmentation features.

### HST-3000 VoIP

HST-3000 Handheld Service Tester allows field technicians to turn-up and troubleshoot VoIP networks. VoIP calls can be sent and received in real-time with full quality measurements and packet capture.

## Technical Specifications

### Minimum System requirements

Windows Vista, Windows XP Professional, Windows 2000

1.3 GHz Pentium class minimum – Capture Agent may benefit from faster processors

256MB minimum – Capture Agent may benefit from increased RAM

300 MB disk space for software

40 Gigabytes for on-board capture file storage

### Order information

Description	Part number
PVA-1000 VoIP Analysis Software	PVA-1000-VoIPF Floating License
PVA-1000 VoIP Analysis Software	PVA-1000-VoIPN Node Locked License
G.729 CODEC option	PVA-1000T-G729F Floating License
G.729 CODEC option	PVA-1000T-G729N Node Locked License

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