

FIREBERD[®] DNA-323 H.323 Analyzer

Increased WAN deployment, competition in telecom service offerings, cheaper and more powerful PCs, widespread Internet connectivity, and global networking are combining to make voice over IP (VoIP) one of the fastest growing technologies on the market. But because VoIP and the H.323 standards that govern it are evolving daily, it's also one of the most challenging technologies to test. Traditional WAN/LAN analyzers can troubleshoot the physical layer problems that may hinder VoIP transmission, but to effectively install, maintain and monitor VoIP, you need a specialized tool to perform full analysis of the upper layer H.323 protocol. TTC has the solution—FIREBERD DNA-323 H.323 Analyzer, an easy-to-use, Windows-based application that provides the most comprehensive VoIP analysis available today.

Highlights

- Decodes H.225, H.245, Q.931, RAS, RTP, and RTCP
- Provides H.323 analysis with call set-up and tear-down logging
- Supports capture, decompression, and sound card playback of full duplex audio payload
- Presents decodes in an easy-to-understand conversation view
- Compiles statistics to baseline network performance and measure quality of service (QoS)
- Operates on a Pentium-based PC or FIREBERD 500 Internetwork Analyzer for integrated, portable analysis



Features

Comprehensive H.323 Analysis in a Portable, Easy-to-Use Package

Easy-to-Use Interface

FIREBERD DNA-323 was developed as a Windows 95/98/NT application and takes full advantage of the intuitive Windows platform to deliver true point-and-click VoIP troubleshooting.

Integrated H.323 Upper Layer and Physical Layer Protocol Decode and Statistics

With FIREBERD DNA-323, the information you need to install, monitor, and maintain VoIP is at your fingertips.

H.323 Protocol Decodes

- H.225
- H.245
- Q.931
- RAS
- RTP
- RTCP

Audio Analysis

- H.323 compliant audio stream analysis
- RTP and RTCP analysis
- Audio payload decompression
- Full-duplex playback
- Audio drop with SA/GG
- Spectrum and spectrogram analysis

Data Analysis

- Signaling analysis
- H.245
- Q.931
- PDU re-assembly
- Real-time statistics
- Destination/source IP address
- UDP port identification
- Packet time-stamping
- Real-time counters
- Total packets
- Frame size

Thorough Reporting

FIREBERD DNA-323's reporting capabilities will give you the information you want in the format you need. Choose any information that FIREBERD DNA-323 captures and generate:

- Exportable tables in ASCII text, CVS, and Excel file formats
- Exportable charts in Windows Metafile and Enhanced Metafile formats
- Printable tables and charts

Applications

FIREBERD DNA-323 Takes the Trial and Error out of Deploying and Troubleshooting VoIP

Whether you're supporting VoIP deployment and maintenance or integrating VoIP systems into a network that already carries data traffic, FIREBERD DNA-323 H.323 Analyzer provides the functionality you need to ensure that your network is tuned to deliver optimum voice and video performance.

Call Signaling Analysis

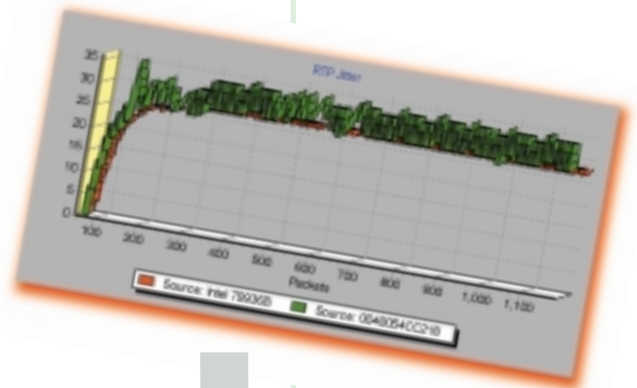
Due to the complicated call set-up and tear-down nature of H.323, call signaling analysis is vital to verify call connectivity. Because the call signal information carried in the Q.931 Call Control Message is typically segmented over a number of packets, technicians need an analyzer that re-assembles protocol data units. FIREBERD DNA-323 exceeds the capabilities of traditional protocol analyzers by performing this key task in addition to providing complete decode of the H.245 protocol stack and displaying session-end handshaking in an easy-to-interpret format.



FIREBERD DNA-323's Conversation Display view provides thorough Q.931 data in plain English.

RTP Analysis

Real Time Protocol (RTP) is designed to get audio and video data from one point to another reliably without the overhead of constant handshaking used in traditional protocols. Since it works without the safety net of handshaking, it not only carries the payload, but transports information valuable to troubleshooting payload delivery, as well. By decoding the performance information encapsulated within RTP, FIREBERD DNA-323 can quantify the packet jitter, packet delay variation, and packet loss. FIREBERD DNA-323 also correlates the transport abnormalities to host activity to pinpoint the source of each problem.



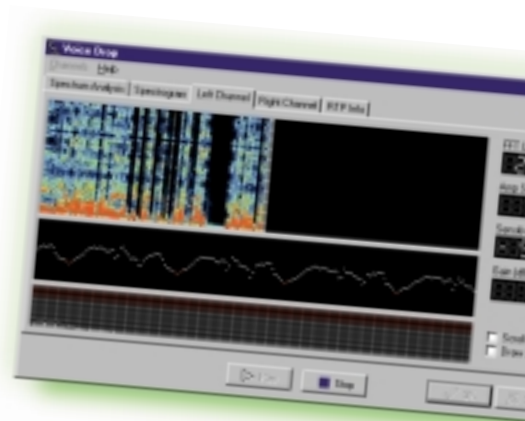
FIREBERD DNA-323 allows users to analyze packet jitter throughout the network to identify contributors to poor payload delivery performance.

RTCP Analysis

Real Time Control Protocol (RTCP) carries information used by receivers to share configuration and packet performance information. Due to the streamlined nature of RTP, RTCP is relied upon by the network endpoints as a feedback mechanism. By performing complete decode of RTCP, FIREBERD DNA-323 discovers disparities in packet performance as observed by one network endpoint versus performance observed at another endpoint. FIREBERD DNA-323 evaluates these disparities to isolate and pinpoint problem origins.

Voice Drop

Thorough protocol analysis is imperative in tuning a network to yield maximum performance efficiency, but end user satisfaction and QoS perception hinges upon consistent call connection, good voice quality, and low perceived delay. FIREBERD DNA-323 provides a full-duplex voice drop mechanism to the Microsoft Windows sound subsystem. This capability allows technicians to qualitatively observe and listen to voice data to respond to QoS trouble calls. Voice drop capability also enables the technician to perform spectrum, oscilloscope, and spectrogram analysis on voice calls. By evaluating voice quality, technicians can identify slow performing PCs, underlying network equipment, and infrastructure as contributors to poor voice quality.



FIREBERD DNA-323 spectrum and oscilloscope analysis results provide at-a-glance audio data quality troubleshooting.

Product Information

Model #	Description
FB-DNA-323	FIREBERD DNA-323 H.323 Analyzer
FB-DNA-323-SITE	Site License

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