

HIGHLIGHTS

- Free downloadable software version available for evaluation
- Full wire rate monitoring, analysis and capture performance for 10/100 Mb/s, 1 Gb/s and 10 Gb/s Ethernet networks
- Real-time 24x7, 7-layer statistics and alarm with user definable actions including SNMP trap
- Support for over 1,000 Ethernet/IP protocols
- Additional add in modules are available including Expert Analysis (ClearSight Apex)

BENEFITS

- Completely triple-play ready; supports a wide variety of audio and video codecs
- Reconstruct and create audio and video content from VoIP flows, either during real-time monitoring or from a trace file
- Trace file neutrality: ClearSight Analyzer can open and analyze a wide variety of trace file formats including .PCAP and .CAP
- Packet slicing feature limit the amount of payload data capture greatly optimizing the use of capture buffer space
- Comprehensive filtering limit monitoring, capture, or display to those things that interest you by creating filters based certain criteria
- Unique multi-segment view correlates server and client in multiple physical segments allowing for traffic across multiple segments to be tracked

The award-winning ClearSight Analyzer (CSA) is a member of the ClearSight family of advanced monitoring and analysis solutions that enable enterprise LAN administrators and engineers to maintain, diagnose, and resolve application and performance issues on their multi-protocol network environments.

Through a simple and intuitive yet extremely powerful user interface, CSA presents a comprehensive high-level overview of your network. From that framework, you can use well-placed hyper links to drill down to gain access to more detailed information. As an example, you can display all the activity for a single application, then drill down to the server level, and further down to the server flow to observe the actual media content of the flow. This unparalleled level of control and visibility speeds time to problem resolution and minimize overall network downtime.

CSA provides unmatched features and incorporates industry leading 1,000 protocol decodes across all 7 network layers. Extensive analysis, monitoring and measurement and report capabilities enable network engineers to proactively manage and maintain their network and guard against outages and downtime.

Apex Expert Analysis

Beginning with CSA release 6.6, support for the Apex Expert Analysis module will be available. This optional software component integrates with CSA and provides a fully comprehensive Knowledge Base of network problems and issues (over 500) – derived out of millions of hours of effort on the part of network experts world-wide. The Knowledge Base simulates real human network experts. And because it uses the context provided by your own network traffic, infrastructure and associated conditions – decision-making based on all the known network variables within your specific situation. The end result the ability to troubleshoot almost all network problems without having expert level knowledge of network protocols.

Features	Benefits
THREE DISPLAY PANEL INTERFACE	Immediately see the problem layers and quickly determine overall network health in real time
MDI COUNTERS IN RTP STATISTICS	The Media Delivery Index (MDI) consists of the components Delay Factor (DF) and Media Loss Rate (MLR). ClearSight displays these statistics in real-time and post-analysis, and also let you set alarm thresholds for each of these independently
MULTI-SEGMENT VIEW	Correlate server and client in multiple login and physical segments. Follow VoIP traffic across multiple segments
VIDEO QOS STATISTICS	When an RTP flow is recognized as including a video flow, ClearSight displays VQFactor™ statistics for the video component as well as MOS statistics for the audio component
AUTOMATIC CAPTURE FILTERS	Right-click on a flow to capture packets from that flow only
VIDEO QOS STATISTICS	When an RTP flow is recognized as including a video flow, ClearSight displays VQFactor™ statistics for the video component as well as MOS statistics for the audio component
REAL-TIME MONITORING OF APPLICATIONS	See application and configuration flow views without having to capture packets
SLA MONITORING	Constantly test applications for level of service. Create alerts when performance drops below your acceptable standards
TIMING DISPLAYS FOR APPLICATION CONVERSATIONS	Network delays and poor response times pop right out of the application flow view and identify slow commands, poor service, or application performance issues
TRACE FILE ANALYSIS	Open up to 5 trace files simultaneously, in tabs or in separate windows
FULL PACKET DECODES	Switch to a Decode tab to see traditional full packet decodes in Summary, Detail, and Hex screens, during real-time monitoring or from a trace file
EXPERT ALERT FUNCTION	Set problem thresholds and see immediately when an application, server, or flow has a problem. Program email, pager, script, or SNMP actions to be performed when a problem occurs
COMPREHENSIVE FILTER FUNCTIONS	Limit monitoring, capture, or display to those things that interest you by creating filters based on application commands, IP subnets, data patterns, and many other criteria. Build up complex filters using AND, OR, and NOT operations. Name, save, and reuse filters
HISTORY REPORTER	Produce network, application, and other trend reports based on real-time statistical data accumulated over longer periods of time. Choose how often to save data from a range of 1 to 60 minutes. Specify the period covered by the report – for example, yesterday, last week, or any period you choose
TRIPLE PLAY USAGE REPORTS	Real-time, history, and post analysis usage reports are provided for Triple Play
VOIP CALL LOG HISTORY REPORT	Included among the available History Reports. These reports provide graphical and tabular presentations for call status, number of calls, call duration, MOS summary and distribution, and R-value distribution
VOIP CALL LOG BROWSER	Apply simple filtering and sorting to browse for individual calls using criteria such as start time, call duration, caller and callee identifiers, and MOS score
PROTOCOL FORCING	Apply protocol forcing during real-time monitoring or when replaying a trace file
CHOICE OF WINDOW STYLES	Use a Look and Feel option in the Tools menu to display windows in ClearSight, Metal, CDE/Motif, Windows and Windows Classic theme styles
SUPPORTS EOAM DECODE	Ethernet OAM frames in both ITU and IEEE format

Unique and Powerful Ladder Views

The CSA's ladder views (also known as application flow views) reveal conversations between client and server in the application command language without having to decode packets manually. It provides an extremely powerful way to understand protocol interactions between various network elements.

IPv4 and IPv6 Support

In environments where both IPv4 and IPv6 are used, statistical data is listed separately for both types of IP packets. This provides an easy way to see what proportion of packets use IPv6. Advanced functions such as real-time application flow analysis, ladder views, and content playback can be used in an IPv6 environment without any special setup. You can specify filter settings for IPv6 addresses just as for IPv4 addresses. You can save IPv6 addresses in the address book and display them as host names within the ClearSight Analyzer.

Comprehensive Report Generation

Generate charts and tables showing statistics and performance for network traffic, servers, and applications. Generate QoS reports for voice and video traffic, showing quantities such as jitter, latency, packet loss, MOS, J-MOS, R-value, and video quality factor. Generate reports based on real-time data or trace files.

IEEE 802.11 / WiFi Support

CSA supports .CAP and .PCAP format trace files captured by a third party wireless LAN analyzer. Once opened in CSA, you can analyze WEP encrypted packets by entering the WEP key. Open Voice over WiFi phone trace files and see ladder displays for signaling analysis, and voice quality measurements based on the RTP packets. Analyze WiFi packets embedded in LWAPP, GRE, and VLAN headers used over Ethernet in a wireless LAN environment.

Multi-Media Reconstruction and Playback

CSA supports video and audio playback. You can export the video recreate audio and video content from VoIP or video flows, either during real-time monitoring or from a trace file content in .mpg format.

Embedded Packet Generator

A versatile packet generator is another one of the tools you will find in CSA. With it, you can perform network load testing and traffic reproduction testing. The packet generator can operate in packet mode (in which a specified packet is sent repeatedly) or in buffer mode (in which traffic from a trace file is reproduced on the network).

PROTOCOL SPECIFICATIONS

Supported Non-VoIP Applications	DNS, HTTP, FTP, TELNET, Citrix POP3, SMTP, Exchange ISAKMP, KERBEROS MS SQL, Oracle, SMB AIM, BOOTP, Gopher, Media Player, Napster, NETBIOS, NFS, NNTP, Quicktime, RIP, RIPNG, SNMP, TFTP, X Windows, Yahoo Messenger, MSN, Skype
Supported VoIP Applications	H.323 (H.225, H.245, RAS), SIP, MGCP, MEGACO or H.248, SCCP (Skinny), RTSP, MSN
Supported VoIP Protocols	H.323 (H.225, H.245, RAS), SIP (RFC 3261, T.38 Fax over IP), MGCP, MEGACO or H.248, SCCP (Skinny), SIGTRAN (IUA: RFC 3057 ISDN UA, SUA, M2PA, M2TP, M2UA: RFC 3331, SS7 MTP2 UA, M3UA: RFC 3332, SS7 MTP3 UA, MAP, SCTP, ISUP), Media Protocol (RTP, RTCP, RTSP)
Play (decode) Audio Codecs	G.711 (μ -law and a-law), G.721, G.722, G.723 mono, G.726, G.729, GSM mono, 4-bit mono DVI 8 KHz, 11.025 KHz, 22.05 KHz, MPEG layer (I, II-TS, III, IV), iLBC, AMR (GSM, 3GPP), ASF
Play (decode) Video Codecs	H.261, H.263 (mode A and B), H.263-1998, JPEG (411, 422, 111), MPEG4, H.264, ASF

PHYSICAL INTERFACES SUPPORTED

10/100 Mb/s Ethernet	10/100 Base-T, half and full-duplex
1 Gb/s Ethernet	1 Gb/s half and full-duplex (wire-rate speeds)
10 Gb/s Ethernet	XFP base 10 GbE (wire-rate speeds)

SYSTEM REQUIREMENTS

Item	Minimum Requirement
Computer	Industry standard computer system (laptop or desktop), with a CD drive for software installation
Processor	Pentium 4 (or equivalent) running at 1 GHz minimum (2 GHz recommended)
RAM	512 MB minimum (1 GB recommended) 2 GB minimum if running Vista
Hard Disk Space	500 MB (installation), 80 MB (captured files)
Operating System	Microsoft Vista (32 bit) Microsoft Windows XP Home Edition and XP Professional
Monitor	VGA color monitor with 1024 x 768 resolution and 16 colors



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