

HIGH PERFORMANCE NETWORK MANAGEMENT SOLUTIONS

***PROTOCOL ANALYSIS, NETWORK
TROUBLESHOOTING, MANAGEMENT AND
LONG TERM TRENDING FOR SHARED
AND SWITCHED LAN/WLAN/WANS***

OBSERVER



Observer® —For Complete Protocol Analysis and Network Troubleshooting

- Convert your PC or laptop into a powerful protocol analyzer
- Monitor all ports on a switch
- Optimize your network utilizing a full spectrum of tools
- Quick key shortcut navigation saves time on common tasks
- Instantly assess the effectiveness of network changes
- Let Observer do the work for you with one-button solutions
- Collect long-term trending statistics on your network for proactive decision-making
- Capture, view and decode network traffic in real time
- Analyze network traffic to diagnose critical problems automatically
- Windows NT/2000/XP compatibility
- View local or remote LAN/WLAN/WANs, or multiple switches by adding Probes
- Monitor individual users' Internet usage and sites contacted

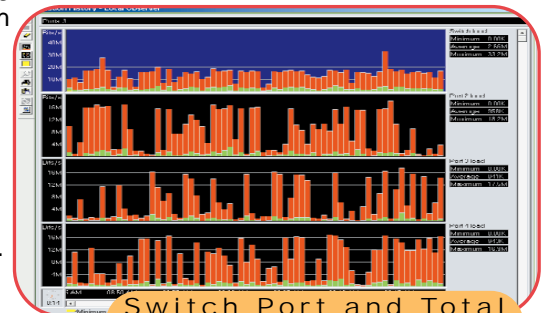
Remove the mystery of what's happening on your network...

Observer®: A network monitor and protocol analyzer for Ethernet (10/100/Gigabit), Token Ring (4/16/100), FDDI, and Wireless 802.11 (b/a). Observer provides metrics, capture and trending for both shared and switched network environments.

Observer is a cost-effective, software-only, Microsoft Windows-based network monitor and troubleshooting tool for LAN/WLAN/WANs and with the addition of Probes, monitors remote LAN/WLAN/WANs.

Observer also offers both real-time monitoring and troubleshooting, as well as a complete trending and baselining collection system.

Observer is a complete solution for even the most complex LAN/WLAN/WANs and can be upgraded to provide expert analysis and modeling, track multiple SNMP-enabled devices, view data from any RMON1/2 probe, and provide Web-based reports.



Switch Port and Total Utilization History

Full Packet Capture and Decode

Decodes all primary protocols and subprotocols—over 500 protocols decoded including: TCP/IP (v4 & v6), VoIP, IPX/SPX, SNMP, NetBIOS/NetBEUI, SQL, TNS (Oracle), OSI and many, many more!

Powerful packet filtering features and options—inclusive, exclusive, address range, library of protocol presets and offsets, custom offsets with use of up to twenty simultaneously.

Over 4,000 frame types recognized

Real-Time Statistics

Bandwidth Utilization—Shows your LAN's (or switches') current bandwidth (or throughput).

Top Talkers—Top stations, receiving, sending & total traffic. Includes percent, total packets, broadcasts, multicasts (each per second) - for each station on your LAN or switch.

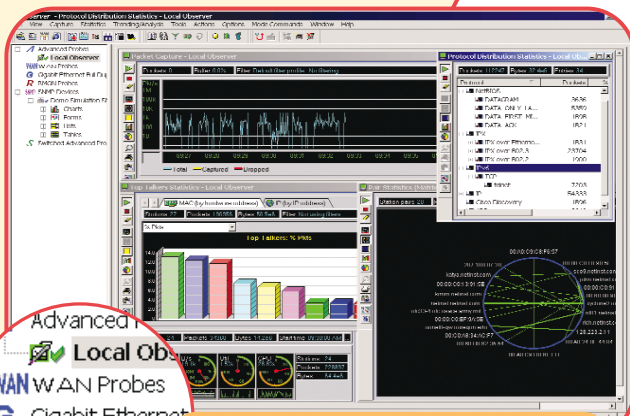
Protocol Statistics—Breakdown of all traffic divided by protocols and subprotocols presented in tree or graph format.

Pair Statistics (Matrix)—Tracks all conversation pairs. Graphical matrix shows pair conversations with lines that reflect total traffic flow, and average station latency.

Internet Observer—Shows user's Internet usage in three views: Individual users' Internet usage, true layer 3 IP addresses and each users' subprotocol usage.

Network Activity Display—Shows critical network utilization and broadcast information graphed against a packet traffic reference line.

Triggers & Alarms—Set triggers to flag a particular network activity or error.



User-Friendly Interface

- Advanced
- Local Observer
- WAN Probes
- Gigabit Ethernet
- RMON Probes
- SNMP Devices
- Demo

Error Tracking

Vital Signs Display—Displays network errors for Ethernet, 802.11, Token Ring or FDDI. *Ethernet*—Packets too big/small, CRC, collisions, alignment. *Token Ring*—All 29 MAC layer errors reported by Type I, II, III and beacon. *FDDI*—all 183 SMT and MAC layer errors reported. *802.11*—All MAC layer errors reported. *WLAN Vital Signs*: Displays aggregate signal strength and quality, and all wireless network speeds and errors.

Errors by Station—Tracks all errors by station for Ethernet, Token Ring, FDDI, and 802.11. For Ethernet and Wireless 802.11, Observer includes ErrorTrack™ NDIS drivers that provide extended error tracking information. For Token Ring and FDDI, errors by station are displayed with standard adapter drivers.

One-Button Solution Examples

Router Observer—Focuses on a specific device (usually a router). Displays packets, bytes, packets and bytes/sec plus percent of the device's interface being used (i.e. percent of T1 or AP connection) for up to 8 routers or APs.

Efficiency History—Measures and grades data-carrying capacity of a network. Provides an independent baseline assessment of changes and additions.

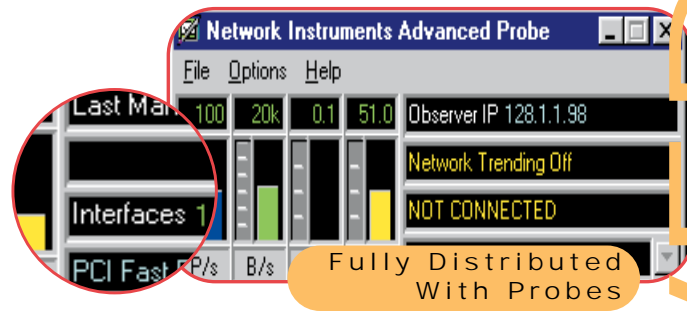
Web Observer—Allows viewing of traffic flow into and out of the server for up to 8 Web servers. Displays addresses on server and the percent of network traffic being generated by each address.

Switch Statistics

Switched Modes—Loops through all ports on your switch and collect statistics on a port-by-port basis with advanced sampling and scripting.

Historical Trending

Network Trending—Allows user to collect, store, view and analyze network traffic over days, months, and years. Performs statistical sampling, offering accurate graphical or table-based feedback without being forced to maintain volumes of unnecessary data.



Software-Based 10/100/Gigabit, 802.11 Wireless, 4/16/100TR and FDDI Probes

Extensible via the addition of software - or hardware - based, non-dedicated Probes, Observer can be upgraded into a fully-distributed protocol analyzer. Probes provide identical statistics and functionality for remote networks or switches as the local Observer console. Observer's Probes can be installed as either the Advanced Probe or the RMON Probe. For NT/2000/XP, either Probe can be run as a service.

The Advanced Probe—Offers a superset of RMON functionality. The Probe software runs on a standard non-dedicated Windows NT/2000/XP PC and requires no additional hardware. Additionally, Probes can collect trending data without being connected to Observer (unattended modes).

The RMON Probe—An industry-standard RMON1/2 compliant Probe application. All 19 RMON groups are supported with full adherence to RFCs 1513, 1757, 2021 and 2074. RMON Probes can support up to 10 interfaces. A Probe running in RMON mode can report to any RMON or SNMP management console that supports RMON1/2.

Wireless Network Analysis

Observer is a versatile Wireless protocol analyzer that supports both wired and wireless networks, eliminating the need to purchase separate tools for different network types. Observer provides wireless capture/decode,

SERVER
OBSERVER

Example problems Observer can help you isolate:

Host sessions are "hanging"?

Observer's capture and decode will show which system sent the last packet and which system failed to respond—host or workstation.

Slow screen updates?

Observer's delta time stamps show which system is waiting, and which system is lagging in its reply.

Do you need a faster WAN/Internet connection?

Router Observer shows one minute and one hour averages for router usage statistics.

Can't log in? Packet Capture can display login negotiations, retransmissions and response times to determine where and what is the problem.

Is your Web server servicing requests in a timely manner?

Web Observer shows your Web server's average response times and gives you a view of who is on your server, and how much traffic each client is generating.

What is your switch throughput?

Observer's Switched Bandwidth Utilization shows switch throughput and effective switch efficiency.

UNIX (TCP/IP) or NT/XP server re-sending fractured or incomplete packets, forcing multiple retransmissions?

Observer's Packet Capture will capture the interaction between stations and server and thus provide the hard evidence you need to pursue the problem.

Implementing VoIP, and need a tool to verify performance and check compliance? Observers complete decode of H.323, including VoIP, insures you will have the tools you need when voice and data problems arise.

Visit us online for a full-featured evaluation:

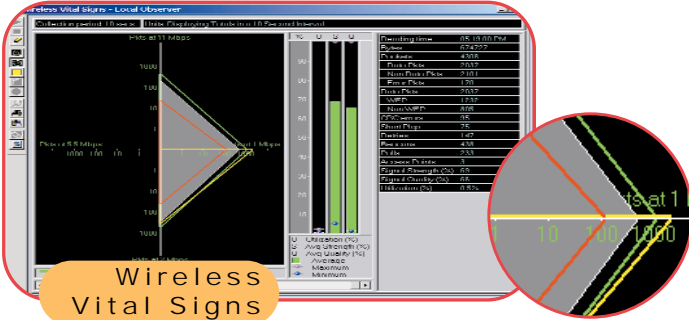
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statistics, trending and expert analysis, and takes Wireless to a new level by including such functions as:

Wireless Network Vital Signs—"At-a-glance" view of network health

Wireless Access Point Statistics—Shows traffic passing through any APs visible to Observer's wireless NIC, a critical function for maintaining performance and security on any 802.11 network.

Easily switch wireless operation between analyzer mode and standard NIC mode with Network Instruments' specially designed ErrorTrak driver.



Additional Features

Traffic Generator—Allows generation of traffic for testing purposes. User can specify packet size, packets/sec, time period to generate, destination, source, number of packets to send, and protocol header.

Discover Network Names—Discovers all MAC addresses and auto-aliases for IP, NetWare or Microsoft. Each is configurable—a DNS lookup for IP, for IPX a NetWare server query for login names, for Microsoft NetBIOS login names are found for each hard address.

Other Interface Options—Multiple Modes displayed concurrently, Dashboard shows current network's activity and processor utilization of local or Probe PC, configurable button bar, save/read buffers in Sniffer® format.

Observer Requirements:

System Requirements—*Minimum:* Windows 98, a supported network adapter, a mouse, and a VGA color monitor running in 800x600 mode. *Recommended:* Windows 2000/XP, a 16 bit network adapter, a fast 16 bit VGA adapter, and a color monitor running in at least 1024x768 resolution.

SOFTWARE-BASED PRODUCT OPTIONS

Select the technologies that match your needs from these high performance Observer products.

Observer®—The complete, full-featured protocol analyzer.

- Easy to use standard Windows interface
- Advanced switch management capabilities
- Provides metrics, capture, and trending data

The Real Time Expert—Pinpoint difficult problems through real-time and post-capture expert analysis, and modeling.

- Includes TCP/IP, XoIP, NetBIOS/NetBEUI, IPX/SPX, SQL and WAN Experts
- Time synchronization technology to troubleshoot WAN delays
- Grades LAN data and WAN/Internet traffic differently

The SNMP Management Console—View any SNMP agent's data in chart, list, table, graph or graphical device image format from within the Observer interface.

- Charts, lists and manipulates SNMP data
- Includes full MIB compiler, add your own charts

The RMON 1/2 Console—View and manipulate any RMON1/2 Probe's data from within Observer.

- Full adherence to RMON standards broadens the Observer console to include reporting from many types of devices.
- Supports full RMON2 and RMON1

The Web Publishing Service—View daily and historical trending data from any Web browser for local and remote networks, or SNMP device.

- Create multiple security levels
- Harvest statistics from remote LAN/WLAN/WANs

Advanced/RMON1/2 Software Probes—Supports non-dedicated PCs running 98/Me/NT/2000/XP.

DICOM Extension—Decode and troubleshoot medical imaging industry-specific protocols.

- Complete decode of the DICOM standard protocol
- Supports extendable decodes

	OBSERVER	EXPERT OBSERVER	OBSERVER SUITE
Observer®	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
The Real Time Expert	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
The SNMP Management Console	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
The RMON 1/2 Console	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
The Web Publishing Service	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Advanced/RMON1/2 Software Probes	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DICOM Extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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