Sniffer Portable
Providing comprehensive network and application management

Product Overview
Sniffer® Portable is a family of network fault and performance management solutions that enable network professionals to maintain, troubleshoot, fine tune and expand multitechnology and multiprotocol networks. You can configure Sniffer Portable software and its associated options in minutes to begin tracking all the information entering or leaving your network via the Internet gateway and traveling on internal subnets. It supports virtually all Local Area Network (LAN) and Wide Area Network (WAN) topologies, from 10/100 Ethernet to the latest high-speed Asynchronous Transfer Mode (ATM) and Gigabit backbones.

By incorporating Expert analysis capabilities and advanced protocol decodes, Sniffer Portable can determine, pinpoint, and analyze the toughest performance problems automatically. It monitors and analyzes 500-plus communications protocol types, including many mission-critical applications such as Oracle database, common email applications, and SAP R/3 over topologies including Half- and Full-Duplex Ethernet, Token Ring, FDDI, WAN T1, HSSI, Packet over SONET, ATM, Gigabit Ethernet, and Wireless LAN 802.11b. Sniffer Portable software runs on desktop, portable, or notebook hardware platforms and can utilize advanced, custom hardware components to ensure full line rate capture capabilities.

Key Features and Benefits

Fast Troubleshooting
- Supports an intuitive, consistent user interface across various topologies that provides quick data capture and presentation

Advanced Real-time Graphs
- Provides a traffic map and matrix of top network conversations
- Displays host tables to immediately identify top bandwidth users
- Shows protocol distribution information of protocols in use, Internet Protocol (IP) applications running, and Internetwork Packet Exchange (IPX) transport processes utilized

Accurate Network Planning
- Monitors and displays network usage over time
- Enables day-to-day utilization tracking to effectively plan for change and growth
- Delivers global statistics reports such as segment traffic, errors, size distribution, and utilization
- Supports alarm reports—displays details and timeline

Sniffer Portable LAN
The goal of Sniffer Portable LAN is to keep your LAN running at peak performance levels. The analyzer captures frames, simultaneously building a database of network objects from observed traffic to detect network anomalies. Once Sniffer Portable LAN has isolated, analyzed, and categorized the problem, it alerts you, explains the problem, and recommends corrective action.

Sniffer Portable LAN also contains sophisticated Expert analysis capabilities that provide enhanced management automation, more comprehensive problem-solving information, and greater network visibility.

Sniffer Portable WAN
Sniffer Portable WAN automatically decodes internetwork bridge/router frame formats and analyzes the LAN protocols encapsulated within WAN transports, helping to optimize WAN bandwidth utilization. It performs real-time monitoring of bridge/router-based leased lines, Frame Relay implementations,
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and X.25 internetworks to quickly uncover, pinpoint, and resolve problems. Sniffer Portable WAN also troubleshoots legacy systems with SNA, X.25, and other terminal-to-host traffic analysis capabilities.

Sniffer Portable WAN includes automatic analysis for faster problem resolution by:

- Locating and labeling internetwork problems automatically (e.g., retransmissions, duplicate IP addresses, high rate of physical Cyclic Redundancy Check (CRC) errors, WAN overload, and Frame Relay congestion)
- Recommending solutions to potential network problems
- Providing detailed bandwidth utilization statistics
- Providing Expert statistics and protocol analysis at all seven OSI layers in real-time, including: TCP/IP, Frame Relay, Novell NetWare5, HTTP, Cisco routing, Microsoft NT, DLSW, HDLC, and Q.931

Sniffer Portable High-Speed
Sniffer Portable High-Speed helps you troubleshoot and optimize high-speed corporate networks, including client/server applications over cell-based networks. Its monitoring and advanced diagnostic capabilities help prevent network downtime. Sniffer Portable maximizes network efficiency by observing your high-speed network, confirming connection setups, and automatically decoding ATM transport and LAN protocols.

Sniffer Portable High-Speed improves fault and performance management efficiency by automatically detecting and pinpointing problems, forwarding alarms with event details, and offering solutions on high-speed Gigabit Ethernet and ATM networks. Because Sniffer Portable High-Speed “sees” into all seven OSI layers and the four ATM connection layers, it can automatically identify bottlenecks and protocol violations—even problems such as duplicate addresses and misconfigured routers.

Sniffer Wireless
Sniffer Wireless provides a comprehensive solution for managing network applications and deployments on wireless LAN 802.11b networks. With its ability to decrypt Wired Equivalent Privacy (WEP)-based traffic, either pre-capture or post-capture, Sniffer Wireless gives network administrators unsurpassed troubleshooting flexibility.

Sniffer Wireless PDA
The Sniffer Wireless PDA enables network administrators to find problems in the wireless LAN 802.11b environments of their network infrastructure. It is based on a small, personal digital assistant (PDA) running Windows powered PocketPC 2002. You can use the Sniffer Wireless PDA to detect security breaches in radio frequencies by displaying all known information and pinpointing rogue and nonsecurity enabled access points. Sniffer Wireless PDA tracks all wireless traffic to determine if the environment is healthy or overloaded. The tracking function helps to correct security problems and detects rogue wireless equipment so it can be removed as a network security threat.

Sniffer Portable Value-Added Software Options

Sniffer Reporter Option
Sniffer Reporter provides valuable insight into network performance. This advanced reporting application allows you to generate graphical reports based on RMON1/RMON2 and similar data collected by the Sniffer Portable application. From bandwidth usage to potential network degradation, Sniffer Reporter delivers in-depth data to help you plan for future network needs. Available reports for Ethernet and Token Ring include:

- Host table reports (top hosts by traffic, top hosts by protocol)
- Matrix reports (top conversations)
- Protocol distribution reports (top protocols)
- Global statistics reports (segment traffic, segment errors, segment size distribution, segment utilization)
- Alarm reports (alarm details, alarm timeline)

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**Sniffer Voice Option**

Sniffer Voice is a value-added package that integrates with Sniffer Portable to provide the necessary insight into voice and video converged traffic. It addresses key issues and ensures successful Voice over IP (VoIP) network rollouts without degrading network response times. It works in conjunction with Sniffer Portable to generate alarms critical to voice and/or video over IP implementations via analysis of jitter, packet loss, packet sequencing problems, and latency.

**Sniffer Portable Value-Added Hardware Options**

**Gigabit Ethernet for Sniffer Portable High-Speed Option**

Gigabit Ethernet (GbE) is a high-speed topology that provides one Gigabit per second (Gbps) bandwidth over LANs. Just as demand for higher speeds led to the creation of 100MB Ethernet, the need for even faster connections between servers and switches has paved the way for GbE.

The Gigabit Ethernet Peripheral Component Interconnect (PCI) solution for Sniffer Portable High-Speed provides the following types of statistical information:

- Physical layer—8B/10B decoding
- Network utilization
- Average frame size
- Frames and bytes transmitted
- Good frame count
- Unicast, multicast, and broadcast
- Frame errors, runts, and overruns
- Check sum errors
- Frames transmitted by frame size
- Start/stop time

The Sniffer Portable GBIC Bundle is a portable, notebook-based Gigabit Interface Converter (GBIC) solution that works with the Snifferbook Ultra and is offered in a hardware and software bundle. The Snifferbook Ultra provides dedicated, powerful performance capabilities to maximize network management efficiency for enterprise and field service engineers. This solution provides 512MB of capture buffer space at full line rate. Also, customers can purchase the Packet over SONET (PoS) module for use in the Snifferbook Ultra base unit.

**Sniffer Portable Full Duplex Fast Ethernet PCI Bundle**

The Sniffer Portable Full Duplex (FDX) bundle is a PCI adapter that can be bundled with software and a Sniffer Technologies platform to create an elegant solution for copper and fiber full duplex links. Fiber cable kits are available and the PCI card can be purchased separately.

The Full Duplex Ethernet PCI Adapter consists of a full-length 32-bit PCI printed circuit board with 256MB of onboard memory and two pairs of transceivers (one pair for optical connections and the other for traditional twisted pair connections). It has two independent full duplex Ethernet channels to capture network traffic. The channels can be used:

- Together to analyze network traffic from both sides of a full duplex Ethernet link (pass-through mode), or
- Separately to capture traffic from up to two half duplex switch ports (end-station mode).

In its pass-through configuration, the Sniffer Portable FDX is a completely passive part of the network, contributing no traffic of its own. In end-station mode, the Sniffer Portable FDX executes an initial auto-negotiation sequence to set up its connection to the network. Upon completion, the PCI card still sends periodic signals to the connected port(s) to keep the connection alive.

**Snifferbook and Sniffer Portable WAN Option**

Combined with Sniffer Portable WAN, Snifferbook provides a portable, easy-to-use tool for testing, viewing, analyzing, and interpreting end-to-end traffic anywhere on the internetwork. It helps you eliminate blind spots and speed up problem identification and resolution. Sniffer Portable WAN analysis software runs complex network analysis on a standard notebook or subnotebook PC.

Snifferbook bridges the gap between WANs, LANs, and internetworks, providing a “WANs-eye view” into internetworks. Utilizing an Ethernet Cardbus or PCI NIC connection to the PC, Snifferbook supports interchangeable interface modules to connect to T1, E1, or RS/V (V.35, RS-232), or ISDN internetwork links. Advanced hardware supports Bit Error Rate Testing (BERT) to assist with line integrity verification.

**High-Speed Serial Interface Option**

The High-Speed Serial Interface (HSSI/T3) for Sniffer Portable WAN is a portable fault and performance card. It helps troubleshoot, maintain, and fine-tune the performance of WANs running across high-speed serial interface transports. Sniffer Portable WAN automatically decodes Frame Relay, proprietary bridge/router frame formats, and SMDS DXI and analyzes the LAN protocols encapsulated within these
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WAN transports. This helps optimize WAN bandwidth utilization and minimize network downtime. Additionally, Sniffer Portable WAN troubleshoots legacy protocols on high-speed serial links, including X.25 and SNA. You can also use Sniffer Portable WAN to analyze client/server environments, with decodes for databases such as Oracle, Sybase, and Microsoft SQL Server. With visibility into the Oracle TNS, Sybase TDS, or Microsoft SQL protocols that establish the client/server communications links, you gain a clear view of the performance relationship between your database application and the network.

Sniffer Portable High-Speed ATMbook Option

The ATMbook for Sniffer Portable High-Speed network monitoring and analysis software is one of the first cost-effective ATM OC-12 network analysis solutions on the market. ATMbook captures and filters every cell in real-time at full duplex OC-3/OC-12 speeds. Both channels can receive cells at up to OC-12 speeds.

ATM statistics are presented per channel, including:
- Non-idle cells received per channel
- Idle cells received per channel
- Corrected ATM HEC errors
- Uncorrected ATM HEC errors
- Percent of bandwidth utilization

World-Class Training, Consulting, and Support

Sniffer University is a comprehensive educational resource for building and enhancing all network professionals’ skills in fault and performance management. Sniffer University has trained over 80,000 network professionals worldwide. The Sniffer Certified Professional Program provides network professionals industry-recognized accreditation as experts in their field.

Sniffer Professional Services can assist you during all network growth stages—from planning, design, and implementation, through on-going management. Our consultants provide expert resources and an independent perspective to meet your specific needs.

Network Associates® PrimeSupport® Services offers essential product knowledge and rapid, reliable technical solutions. Over eighty per cent of our technical staff hold industry certifications and/or technical degrees and over five years of experience in the IT industry. You can engage this high level of expertise through our extensive support portfolio, which consists of PrimeSupport KnowledgeCenter Service Portal, Connect, Priority, and Enterprise. PrimeSupport is your key to maximizing processing uptime, revenue generation, and customer satisfaction.

Specifications and System Requirements

Sniffer Portable LAN/WAN/High-Speed

Minimum Requirements

Pentium 400MHz CPU, 128MB RAM (256MB recommended), 125MB free disk space, CD-ROM drive, 800 x 600 VGA monitor, Microsoft Windows 98 second edition (SE), Windows NT 4.0 (SP 6a), or Windows 2000 (SP 2)

Sniffer Reporter

Sniffer Reporter must be installed over Sniffer Portable version 4.7

Sniffer Voice

Sniffer Voice must be installed over Sniffer Portable version 4.7

Snifferbook and Sniffer Portable WAN

Dimensions

Size: 2 inches (4.7 cm), 12.2 inches (30.5 cm), 10.1 inches (25.7 cm)

Weight: 4 lbs. (1.8 kg)

Power supply (AC adapter)

Input: 100-240 VAC, 0.7 A, 50/60 Hz

Output: 19 VDC, 4.0 A
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**Snifferbook Ultra and Sniffer Portable**

**Packet over SONET**
OC-3c/OC-12c SMF/MMF interfaces, 512MB (256 MB/channel) capture buffer, AMD K6 processor

**Sniffer Portable High-Speed ATMbook**

**ATMbook Specifications**
Interfaces Available: DS3, E3, UTP 155 Mbps, OC-3 MMF and SMF, OC-12 MMF and SMF
Input/output: Utilizes SC Connectors
Onboard capture buffer: 64MB (32MB per channel)

ATMbook Sniffer Portable platform:
Windows NT 4.0 (SP 6a) or Windows 2000 Only

**Gigabit Ethernet for Sniffer Portable**

**High-Speed**
Network analyzer card
Intel i960RP, 1000BaseSX or 1000BaseLX interfaces
Input/output: Utilizes SC Connectors, external trigger input, external trigger output
Trace memory: 288MB (144MB per channel)
Capture rate
Channel A: 1.25 Gbps, channel B: 1.25 Gbps.

**Platform requirements**
BIOS supporting PCI-to-PCI bridge, version 2.1, PNP 1.0a, 3.3V power supply to PCI bus (or external 3.3V voltage regulator card), one full-length PCI slot (plus one half-length ISA slot if external 3.3V regulator card required)

**Sniffer Wireless**

**Driver Support and Integration**
Currently Sniffer Wireless integrates with the following industry leading manufacturers:
- Symbol Technologies Spectrum24 Model 4121
- Cisco Systems Aironet 340/350
- Agere Systems ORiNOCO
- Enterasys RoamAbout

All of these adapters can only run in promiscuous or end-station mode at any given time.

All Network Associates products are backed by our PrimeSupport® program and Network Associates Laboratories. Tailored to fit your company's needs, PrimeSupport® service offers essential product knowledge and rapid, reliable technical solutions to keep you up and running. Network Associates Laboratories, a world leader in information systems and security, is your guarantee of the ongoing development and refinement of all our technologies.