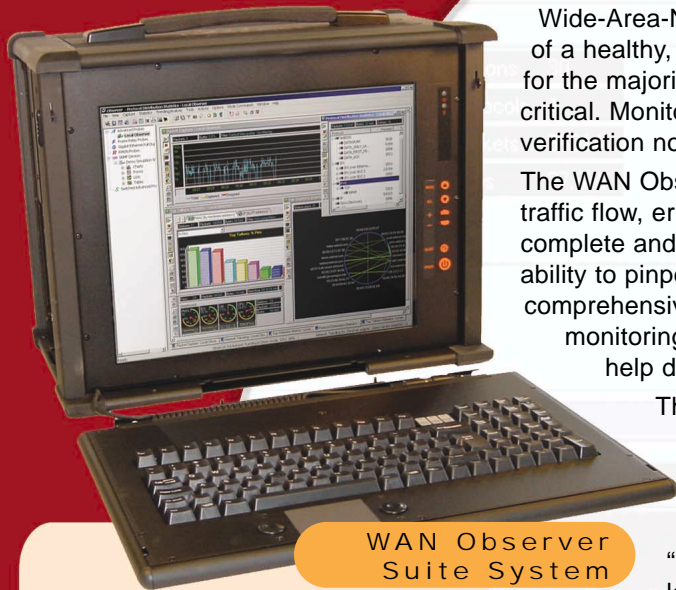




# COMPLETE WAN ANALYSIS AND MONITORING IN A RUGGEDIZED PORTABLE SYSTEM



WAN Observer Suite System

- **Real-time statistics** for capacity planning and provider performance measurement
- **Real-time error displays** for congestion determinations
- **Pinpoint WAN flow problems** before they become WAN flow disasters
- **Long-term Trending** for reporting and baselining
- **Complete capture and decode** of all WAN traffic
- **Inexpensive Probes** provide visibility locally or remotely
- **WAN speeds** up to DS3 supported
- **Demarcation-point (digital)** or between CSU/DSU and router (serial) monitoring options
- **Passive solution** based on non-intrusive TAPs that can be left inline for easy insertion and removal of the analyzer without interruption of the data flow

Wide-Area-Network (WAN) connectivity and throughput validation is a critical part of a healthy, cost effective remote connectivity strategy. With WAN costs accounting for the majority of the network's ongoing operating budget, tracking performance is critical. Monitoring WAN links for flow, errors and Service Level Agreement (SLA) verification no longer needs to be only for carriers and expensive WAN consultants.

The WAN Observer Suite System (WOSS) provides an affordable solution to monitor traffic flow, error metrics and long-term histories. Additionally, the WOSS offers a complete and independent view of your carrier's performance and gives you the ability to pinpoint WAN problems in real-time. The WOSS system provides comprehensive metrics for SLA verification, complete end-to-end application monitoring, long-term trending of statistics, user alarms and an expert system to help diagnose common WAN link problems.

The Observer family of products provides WAN, LAN and WLAN monitoring and analysis all from a single console, making monitoring your WAN not only as easy as monitoring other network resources, but also fits seamlessly into any existing Observer environment. Because the WOSS can integrate into the larger "Distributed by Design" Observer architecture, you can monitor your local WAN link, a remote link (the other side), and the network side of the WAN connection – all simultaneously.

The WAN Observer Suite System is a turnkey system built to monitor WAN links in real-time, and offers multiple configurations to support a wide range of speeds and WAN topologies.

## Trusted, Independent Metrics for Troubleshooting, Capacity Planning, and Vendor SLA Verification

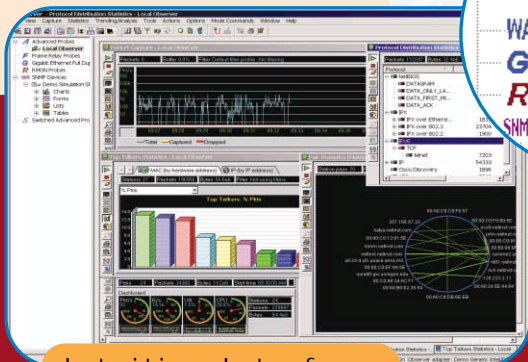
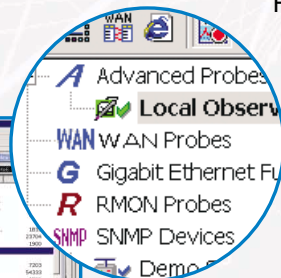
**Statistics** – Real-time information is displayed by Data Link Connection Identifiers (DLCI), Private Virtual Circuit (PVC) or whole link. DLCI's and CIRs are auto-discovered or CIRs may be user defined. Data flow rates are displayed by link, DLCI and % of CIR for each DLCI or PVC.

**Errors** – Errors are displayed by link, DLCI or PVC, and congestion errors (FECN, BECN and DE) are displayed in aggregate or when encountered as data rates are below CIR.

**Alarms** – 18 user configurable triggers and alarms warn of congestion, errors, utilization and the occurrence/non-occurrence of a DLCI. Alarm actions include sending an SNMP trap, notify by pager, email or sound an audible alarm.

**Capture/Decode** – Complete capture and decode of WAN encapsulation and payload data provides detailed packet-by-packet information.

Filter traffic by DLCI or IP address, using one of the hundreds of pre-defined protocol filters, or create your own. Over 500 protocols decoded. Supports packet capture buffers up to 2GB.



Intuitive Interface



[www.NETWORKINSTRUMENTS.com](http://www.NETWORKINSTRUMENTS.com)

**Trending** – Observer’s award winning long-term trending and baselining facility help determine usage trends and puts today’s statistics into perspective. Historical information can be kept for days, weeks, months or years.

**Distributed by Design** – Because the WOSS fits into the larger Observer product family, monitoring multiple links or multiple topologies simultaneously is as easy as clicking on a different Probe. Probes could be in the next rack, or across the world – Observer’s distributed by design architecture gives you complete network visibility, from a single console.

**Real-time Expert** – Observer’s real-time expert system displays hundreds of expert items in a format that makes troubleshooting a breeze. A summary window shows critical WAN and network anomalies. All conversations are broken down by application and problem devices are flagged for further investigation.

**Passive Solution** – All WAN data analyzed by the WOSS is via a passive TAP device that continues to function whether the analyzer is installed or removed, and whether power is provided or not. Because the TAP device is completely passive, your WAN traffic is protected – the analyzer can not, and will not affect the WAN data flow in any way.

**WAN Observer Suite System  
Speed/Link Options:**

For Link Speeds up to T1/E1: 1-Port Serial (V.35, RS232/EIA530/V.24, RS449, X.21/V.11/R.422), 2-Port Digital (RJ45), 4-Port Digital (RJ45)

For DS3/T3/E3 Links: 1-Port Serial (HSSI), 1-Port Digital (Coax)

Encapsulation Supported – HDLC-Cisco, Frame Relay (IETF & Cisco), PPP, LAPB modulo128, LAPB Modulo 8, X.25 (over LAPB modulo128), X.25 (over LAPB Modulo 8) and ATM-DXI (ATM Data Exchange)

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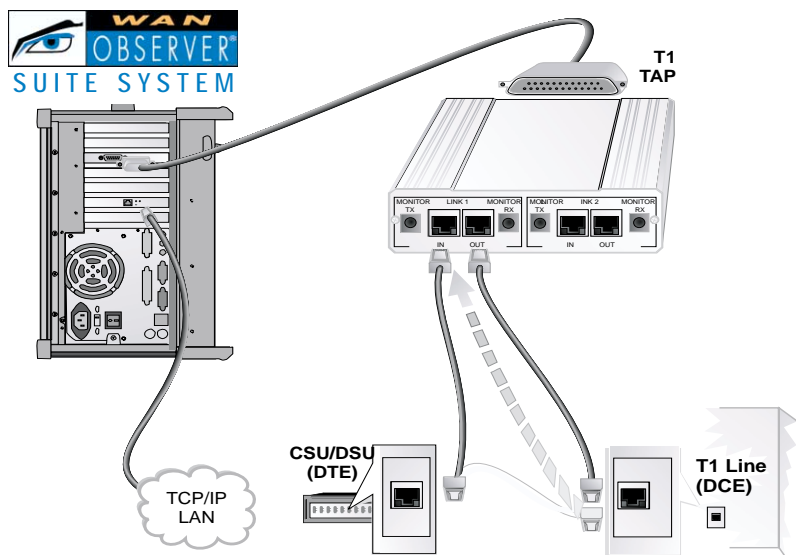
**System Includes**

The WOSS portable analyzer includes a ruggedized portable system with a 14” Color Display, 512Mb RAM, 80GB HD, pre-installed copy of Observer Suite software, WAN adapter, Passive TAP, 10/100 NIC, Windows O/S, all required cabling and a soft-sided travel case.

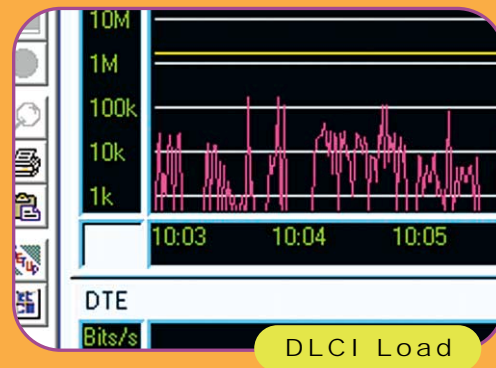
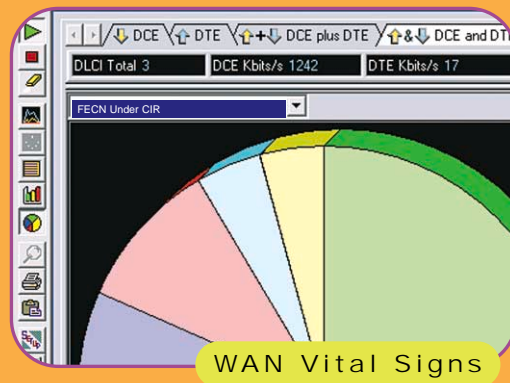
**System Requirements**

The WAN Observer Suite System is a complete, turnkey system for analyzing a WAN link(s); no additional hardware or software is required.

Additional Probes (software-only for Ethernet and 802.11; hardware kits and rack-mount for additional WAN and Gigabit) are sold separately.



Example of the WAN Observer Suite System linked into a digital T1 environment.



**The WAN Observer Suite System is available from:**

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