

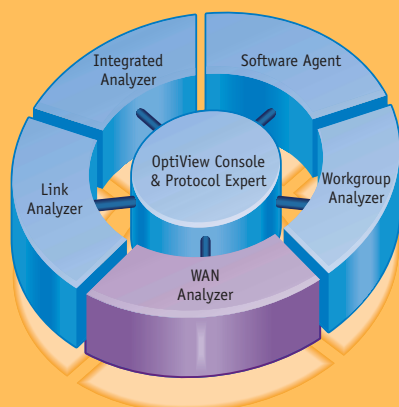
OptiView™ WAN Analyzer OC3/OC12

Total integration.

Total control.

Total Network SuperVision.

Our OptiView Network Analysis Solution is a breakthrough in integrated portable and distributed monitoring and analysis hardware and software. It gives you a fast, complete view of your entire enterprise, from portable devices to workgroup analyzers to high-performance gigabit line-rate link analyzers – across multiple vendors. Only OptiView combines the analysis techniques of packet capture, statistical analysis and network discovery to deliver new speed. New ease of use. New depth of vision. New control to optimize the performance of WAN, LAN and wireless networks.



The OptiView WAN Analyzer provides a complete view of your WAN link performance and facilitates rapid problem resolution from the convenience of your desktop. From any workstation, remotely access the health status of any of your WAN links from the physical layer to the application layer and even perform remote protocol analysis when necessary.

Easily and quickly verify policy decisions regarding wide area network usage. Optimize WAN link performance for critical processes. Examine network security robustness. Produce trend reports on link utilization and errors as well as examine SLA metrics. Quickly discover current devices on the network. When problems are detected, get alerted to changes in network topology or availability immediately and have the events logged and presented in an easy-to-understand format automatically. In short, complete diagnostics of your WAN links.

Features

- Supports high-speed OC3/STM-1 and OC12/STM-4 optical interfaces in real-time
- Supports both ATM and Packet Over SONET/SDH technologies on the same unit
- Supports both singlemode and multimode links on the same unit
- Fail-safe, non-intrusive full-duplex interface
- Multi-user simultaneous remote access via 10/100 Mbps Ethernet management port
- Physical layer through application layer testing
- RMON2 traffic analysis
- Network discovery with address to name resolution
- Real-time problem detection and notification



- Bandwidth utilization statistics including top applications, conversations and protocols
- Latency and availability tracking of key network devices
- Line rate cell and packet capture with 256 MB buffer
- Instant contextual reports on all 7 layers
- Half rack width, single height (1U)

Stand-alone probe or part of an integrated management solution

The OptiView WAN analyzer may be used as an independent system requiring as little as one analyzer and a PC. Even in this simple configuration, users can discover, trend, report and troubleshoot WAN links. For the most difficult troubleshooting tasks, perform packet captures using context sensitive filter and triggering mechanisms and view the decodes in Fluke Networks' Protocol Expert software to isolate root causes of network problems.

Gain simultaneous visibility of both your critical WAN and LAN topologies by adding multiple OptiView analyzers. Get instant access to not only multiple WAN analyzers, but also OptiView LAN analyzer products including the Integrated Network Analyzer, Workgroup Analyzer, Link Analyzer and OptiView Console Agents.

Alternately, you can integrate your OptiView WAN Analyzers with your existing Network Management Software (NMS) to enable troubleshooting and monitoring of WAN segments from your NMS console. The

Fast Vision into high-speed WAN Links.

analyzer offers access via standard SNMP protocol and supports SONET, ATM and RMON/RMON2 MIB data that is easily accessible by your existing NMS solution. In addition, SNMP trap messages can be sent to your NMS when problems are detected on the WAN link as well as when the analyzer sees that they are resolved.

Simple, fast deployment

The OptiView WAN Analyzer offers the same ease of installation and ease of use that customers have come to expect from Fluke Networks. The unit is so compact, it fits into a standard half width single height (1U) rack space. The unit is self-configuring and self-contained and you can begin link management within minutes out of the box. Just plug the unit into your pre-installed tap, hook it to your existing 10/100 Ethernet LAN, install and fire-up the OptiView WAN Analyzer user interface software on your networked PC and you're up and running. The unit automatically discovers WAN link VCs as well as all devices that are consuming your valuable WAN bandwidth. This self-contained analyzer really is this simple to install and use.

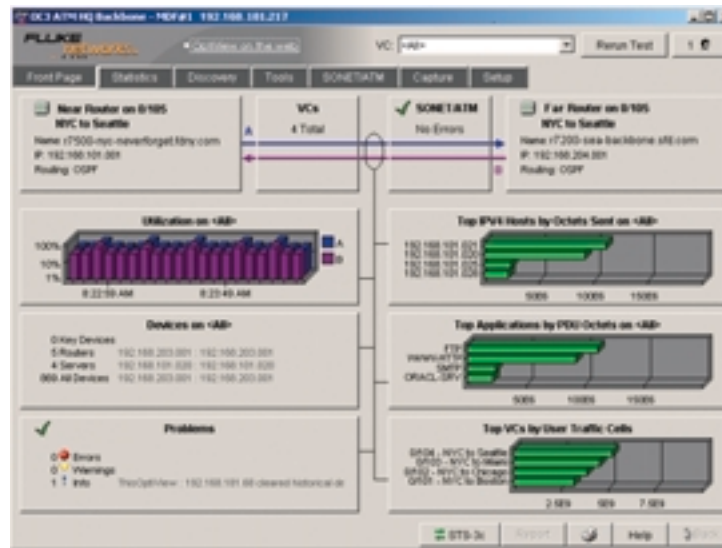
Full duplex analysis of ATM and Packet over SONET at both OC-3 and OC-12 speeds

The OptiView WAN Analyzer is equipped with two receivers that can simultaneously monitor traffic data streams in both directions of a high-speed link. Full duplex traffic patterns are displayed simultaneously for all link analysis.

The OptiView WAN Analyzer supports ATM and Packet over SONET on OC-3 and OC-12 all in one unit. This configuration provides ultimate flexibility, allowing the best protection against future migration in link speed or WAN technology.

Integrated singlemode and multimode platform

The OptiView WAN Analyzer monitors singlemode or multimode on the same unit. Pre-install the appropriate singlemode or multimode tap on your link and you can use



the same Optiview WAN Analyzer to examine both your singlemode or multimode links.

Monitor across the entire OSI stack

The Optiview WAN Analyzer automatically discovers and monitors Virtual Path / Virtual Circuit pairs for ATM links. Drill down on any virtual circuit and find utilization, errors, protocols, top conversations, top hosts and top applications. Automatically detects 35 ATM and PoS encapsulation types including MPLS. Physical layer errors and alarms are continuously monitored in both directions on the full-duplex link. Specific rising and falling thresholds can be customized for problem identification. In addition, instant HTML reports can be created for the measurement screen being viewed.

The ATM and PoS data link layers are monitored in full duplex and a rich set of statistics are made available such as link utilization, throughput and specific errors. Selectable time durations let you view gathered statistics from a 5 minute view up to a 7 day view maintained within the analyzer itself. You can even see your top virtual circuits by utilization, errors, throughput, etc.

Upper layer statistics are displayed in the familiar RMON / RMON2 views of protocol mix, top hosts, top conversations and top applications. You can choose to view this

information as a sum of all virtual circuits or select an individual virtual circuit.

The OptiView WAN Analyzer uses Fluke Networks' unique FPGA designs to capture cells and packets in real-time at line speeds as well as traffic statistics. This design separates RMON statistics gathering from packet capture so unlike some other solutions, performing packet capture does not interfere with statistics gathering.

Remote management

Each OptiView WAN Analyzer has a dedicated 10/100 Mbps Ethernet RJ-45 management port that allows it to be controlled remotely from any point on the network using the Optiview Analyzer Remote Software (included with the analyzer). Up to eight users may access any single WAN Analyzer and perform different analyses at the same time. Settings of the OptiView WAN Analyzer system, such as SNMP Trap destinations, scope of discovery and user access privileges, can be easily configured from any workstation running the analyzer's remote software.

Upgrade functionality when you need it

Buy only what you need today, but be assured that future needs are easily accommodated through simple updates. The OptiView WAN Analyzer is designed to accommodate software upgrades through simple flash updates that can be performed remotely.

Hardware upgrades include an OC3/OC12 upgrade kit that converts the OC3 OptiView WAN Analyzer to a OC3/OC12 solution.

Options

Maximize the visibility of your WAN links through add-on options.

Protocol Expert

Analyze traffic traversing your WAN link with precision detail using OptiView's Protocol Expert analysis software. The OptiView WAN Analyzer provides capture files for decode by the Protocol Expert software module that enables both packet and cell views of WAN traffic. Use Protocol Expert's extensive seven-layer decodes to identify and solve tough problems on link segments.

Simultaneously capture packets on multiple virtual circuits. Rather than examining virtual circuits one-by-one to isolate link problems, the OptiView WAN Analyzer allows you to probe packets across all discovered VCs in real-time to dramatically improve monitoring and troubleshooting capability.

OptiView Console

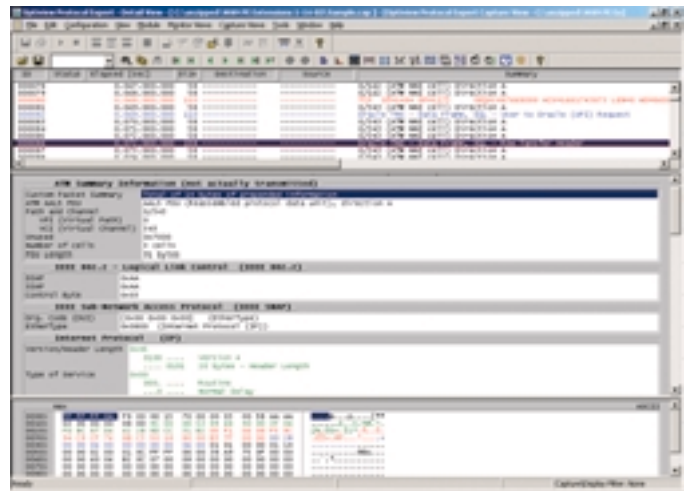
Monitor all your WAN and LAN links from a single workstation. Easily obtain performance summaries, trending analysis, troubleshooting screens, and event notifications across the entire network from a single console.

In-line tap products

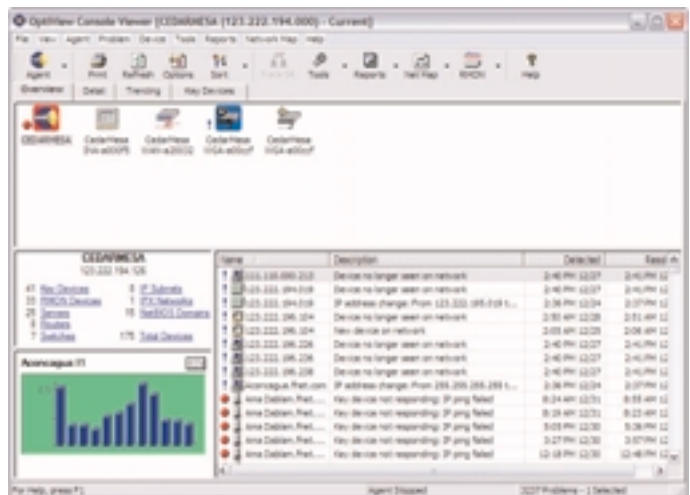
Optical taps are required to facilitate link monitoring with the OptiView WAN Analyzer. Our fiber in-line taps provide visibility of full-duplex traffic, at full line rate on an otherwise inaccessible WAN link. Traffic is sent to the OptiView WAN Analyzer without any loss of packet, error and timing information. Single port taps are economical devices that can be permanently installed on critical links to provide visibility to traffic when breaking the connection is not an option.

Benefits of In-line Taps:

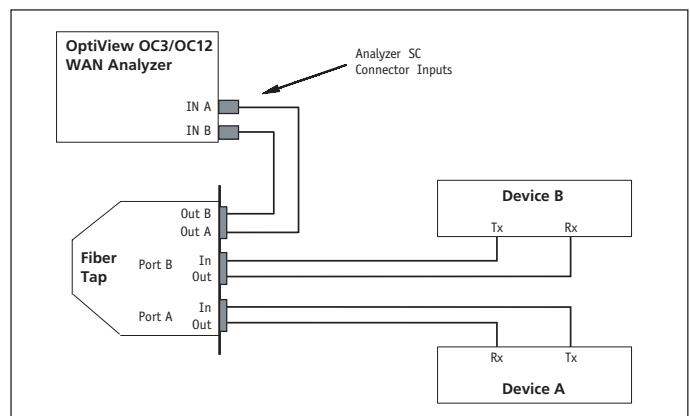
- Cost-effective solution for viewing all packets on a full-duplex WAN link
- Saves time by eliminating the need to suspend network service and reconnect the network each time a segment is analyzed
- Completely passive and power fail-safe



Protocol Expert



OptiView Console



In-line Tap

Gold Priority Support

Protect your investment with our premium annual software support package and receive:

- Unlimited priority technical product support 24/7, with a highly-trained Fluke Networks customer support technician
- FREE software application updates/upgrades

Warranty

The OptiView WAN Analyzer comes with a standard, one year exchange warranty. Fluke Networks will exchange the unit with a unit of equal or better performance. An annual Gold Support package for the OptiView WAN Analyzer hardware is available to provide one year of extended warranty coverage. Contact your local Fluke Networks representative or visit our web site www.flukenetworks.com for more details.

Ordering Information

Model	Description
OPV-WAN/OC3/DVS	OptiView WAN OC3 with Protocol Expert & OV Console 6.0
OPV-WAN/OC3/12/DVS	OptiView WAN OC3 & OC12 with Protocol Expert & OV Console 6.0
OPV-WAN/OC3	OptiView WAN OC3
OPV-WAN/OC3-OC12	OptiView WAN OC3 & OC12
OPVGA-OC12	OC3 to OC3-OC12 upgrade
GLD-OWOC3DV	Gold Support 1 year for OPV-WAN/OC3/DVS
GLD-OWOC3/12DV	Gold Support 1 year for OPV-WAN/OC3/12/DVS
GLD-OWOC3	Gold Support 1 year for OPV-WAN/OC3
GLD-OWOC3/12	Gold Support 1 year for OPV-WAN/OC3/12
OPV-PE/PRO	OptiView Protocol Expert
OPV-PE/PLUS	OptiView Protocol Expert Plus
OVC	OptiView Console
FTAP-101	MM Fiber Optic Tap
FTAP-102	SM Fiber Optic Tap
FTAP-003	Rackmount Kit for 3 Fiber Taps
FTAP-012	Rackmount Kit for 12 Fiber Taps
OPV-RMK	19" Rack Mount kit
OPV-TCASE	Ruggedized Transit Case
PN 944806	RS-232 Cable
PN 107109	CAT5 Patch Cable

Specifications

General Specifications	
Weight	1.2 kilograms (2.8 lbs.)
Size	(H x W x D): approx. 4.1 cm x 21.1 cm x 32.8 cm (1.6" x 8.3" x 12.9")
AC input	85 to 265 VAC; 47/63 Hz; 25 watts. Blue power LED indicator.
Test Access	Full duplex monitoring through a monitor port or tap connection
Layer 2 Support	Asynchronous Transfer Mode (ATM) and Packet over SONET (PoS)
Network Analysis Interfaces	OC3 and OC12, SM or MM (SC)
Network Analysis LEDs	Signal Status (IN A and IN B)
Receive Sensitivity	OC3/OC12 WAN Analyzer: -30 dBm (typical) OC3 WAN Analyzer: -36 dBm (typical)
Capture Memory	256 MB (shared between receivers)
Serial Configuration Port	Serial RS-232 (9-pin male)
Management Port	10BASE-T/100BASE-TX (RJ-45) Ethernet, Full and Half Duplex
Management Port LEDs	Link/TX (solid green for link and flashing green for activity)
Shock and vibration	Meets requirements of MIL-PRF-28800F for Class 3 equipment
Operating Temperature	10° C to 30° C (50° F to 86° F) with up to 95% relative humidity 10° C to 40° C (50° F to 104° F) with up to 75% relative humidity
Non-Operating Temperature	-20° C to +60° C (-4° F to +140° F)
Connection to public telephone network: Do <i>not</i> connect the analyzer's network interfaces to public telephone systems.	
Framing Formats: SDH (STM-1 and STM-4) ITU G.707; SONET: (STS-3c and STS-12c) GR-253-CORE, ANSI T1.105	
RFC Compliance: 2684 (obsoletes 1483) Multiprotocol Encapsulation over ATM Adaptation Layer 5; 2364 PPP Over AAL5; 2819 (obsoletes 1757) RMON MIB; 2021 RMON2 MIB; 2895 RMON Protocol Identifier Reference; SMIV2 [2011 IP, 2012 TCP, 2013 UDP]; 2558 (obsoletes 1595) SONET/SDH MIB; HC-RMON-MIB (IETF draft) RMON for High Capacity Networks; RFC 2233 (obsoletes 1573) IF-MIB.	
ATM Forum IEs: AF-NM-TEST-0080.000 ATM RMON MIB objects	
Safety information:	
Complies with CSA C22.2 No. 950 Canadian standards, UL 1950 US standards, and EN60950 3 rd edition (CE Mark). Class 1 Laser product.	
EMC: CE Complies with EN61326 Class A.	

NETWORK SUPERVISION

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Fluke Networks operates in more than 50 countries worldwide. To find your local office contact details, go to www.flukenetworks.com/contact.

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