



# EtherScope™

## Network Assistant

### With EtherScope, you can:

- **Solve Gigabit network problems fast** – Full-duplex 10/100/Gigabit copper Ethernet testing; tests interfaces you have now and those you may have in the future.
- **Discover switches fast** – Locate available interfaces, active ports, MAC, IP, SNMP name, and link speed.
- **Capture detailed network information** – Locate, view, and store 1,000 network devices in the on-board database. Drill down on any device to see its configuration, addressing, and status.
- **View data instantly** – Pinpoint duplicate IP addresses, network misconfigurations, frame errors, collisions, high-utilization segments, and cable problems.
- **Identify vital network stats** – View Ethernet utilization, collisions and errors. Use the data to fine tune your network.
- **Boost network uptime** – Analyze performance trends with baseline data reports.
- **Easily use** – Bright, color touch-screen display, intuitive user interface with Linux®, and context-sensitive help makes EtherScope Network Assistant a snap to use.

*You're working on one of your two-dozen top priority projects when you get the call. Someone's complaining about the network. It could be one of your access switches. It could be the router or WAN link. It could be a server problem, or a hacker, or a confused user. **It could be anything!***

*But **you** are the one that has to investigate, isolate, and solve the problem...or at least prove it's not the network.*

*No problem. Thanks to your assistant, you quickly see into the network and fix the problem fast so you can get on with your life.*



## Powerful vision into your network

### VLAN discovery

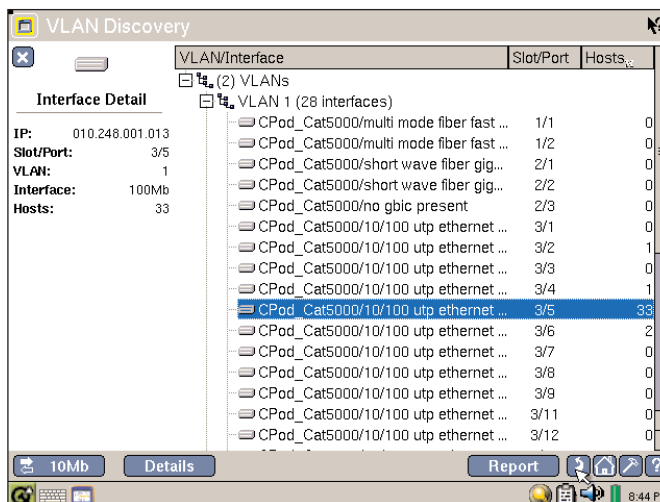
Managing your VLANs has never been easier. EtherScope identifies VLANs configured on discovered switch interfaces and allows you to drill-in to see interface status, connected host details and trend interface data. If you are using a management VLAN, switches are typically not visible to the discovery process. But, with EtherScope, you can simply add your switches as user-defined devices, giving you a complete picture of your switched network. EtherScope automatically determines the nearest switch, interface and VLAN for each discovered device, making it easy to resolve issues and track configuration changes.

### Network discovery

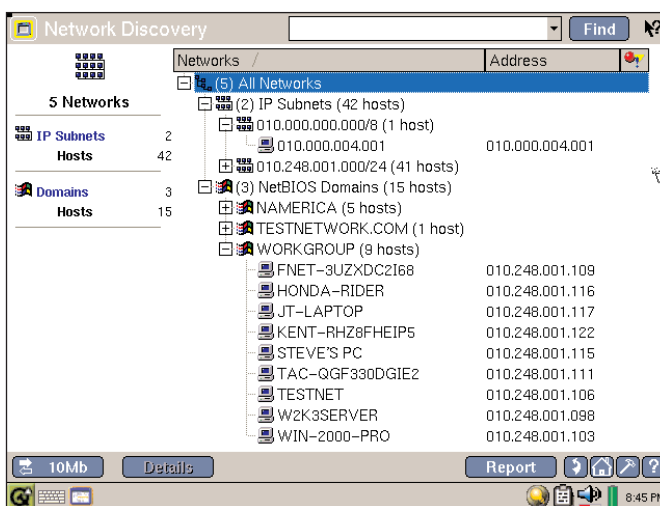
EtherScope conveniently organizes discovered devices by IP Subnets, NetBIOS Domains and IPX networks. Subnet details include address ranges and subnet masks, while domain details identify master browsers and domain controllers. An easy-to-use *Find* feature searches across all networks to quickly locate each occurrence of a device using full or partial names, IP addresses or MAC addresses.

### Nearest Switch

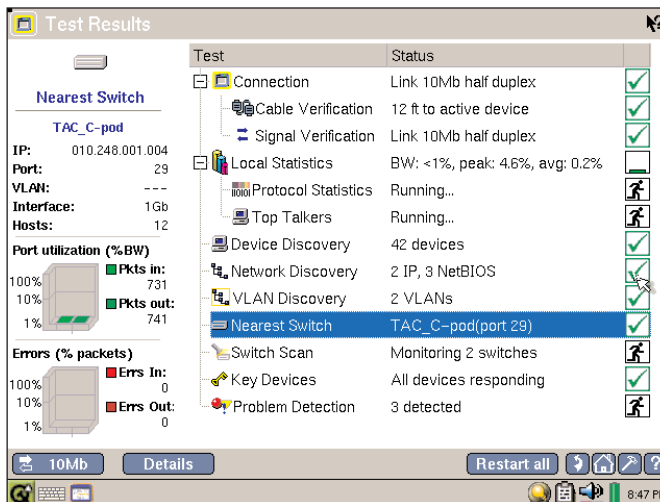
Determining where you are connecting into the network is often the first challenge when diagnosing user issues. EtherScope's *Nearest Switch* discovery speeds you on your way whether you are troubleshooting a problem, validating a move or updating documentation by identifying the slot and port to which you are connected. With the nearest switch identified, EtherScope makes it easy to launch a web browser or Telnet session to configure the switch or examine switch details and port statistics.



VLAN discovery



Network discovery



Nearest Switch

## Network health – at a glance

One glance at the tri-color LEDs indicates your network's health. You'll see utilization, collisions, errors, and transmit frames.

### Monitor key devices

Key Device Ping verifies connectivity to a list of user-defined devices – routers, servers or switches.

### Identify capacity trends and needs

Switch port statistics and trending show steady and bursty traffic, allowing you and your staff to pinpoint problems quickly.

## Control via the web

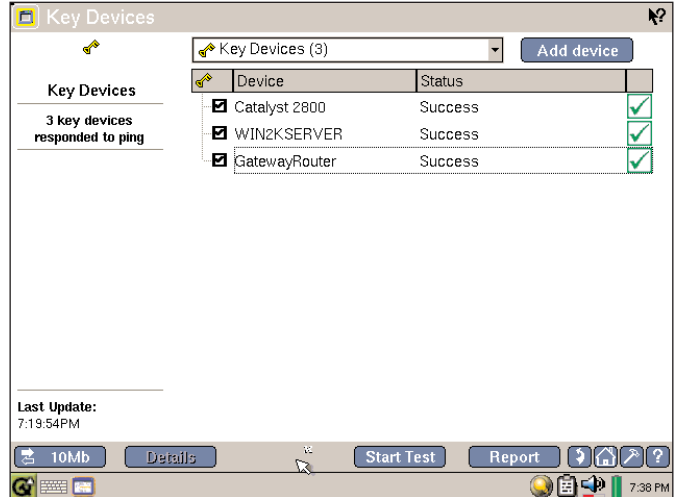
EtherScope Network Assistant supports secure remote access and control. Monitor and identify problems via your web browser by shipping an EtherScope Network Assistant to a remote site and recruiting a lay person to plug it in to the local network.

## Network testing

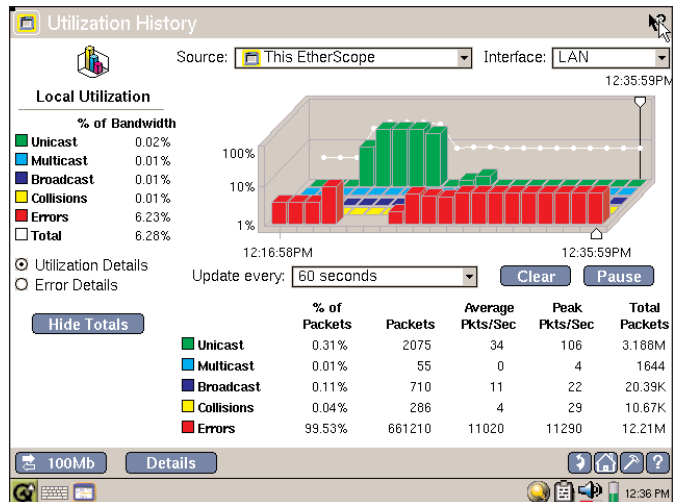
View information about your network automatically. As soon as it's connected to the network, the EtherScope Network Assistant starts testing and displaying real-time results of devices, networks and problems. Navigate through the intuitive menus and quickly get an in-depth view of your network.

### Active network and VLAN discovery

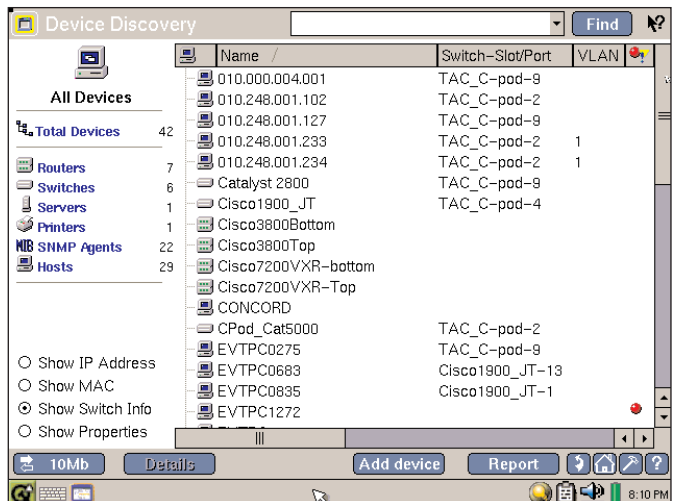
Discover up to 1,000 devices and extract switch and VLAN information showing you where users are connected. Save your staff time when they troubleshoot network connection issues and congestion.



Monitor key devices



Switch port statistics



VLAN discovery



### Identify top talkers

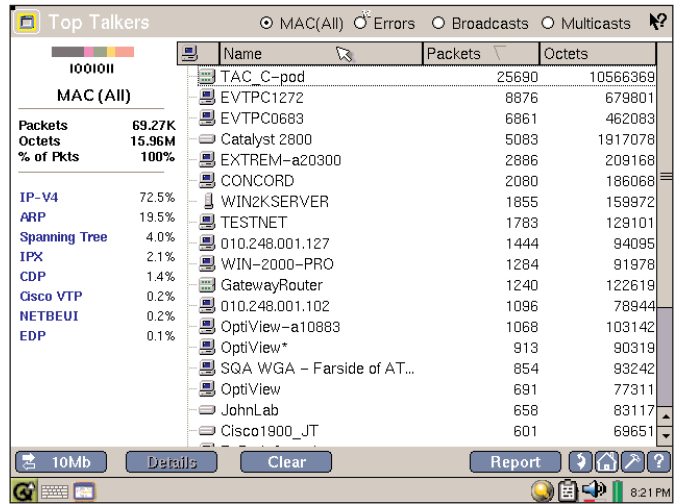
See who the top bandwidth users are at a glance. Select specific Frame Types, such as: Errors, Broadcasts, or Multicasts. Then, see the traffic displayed by protocol, such as IPV4, ARP, Spanning Tree, IPX, CDP and others. Drill-in on suspicious activity, identify the source, and quickly solve the problem.

### Traffic analysis

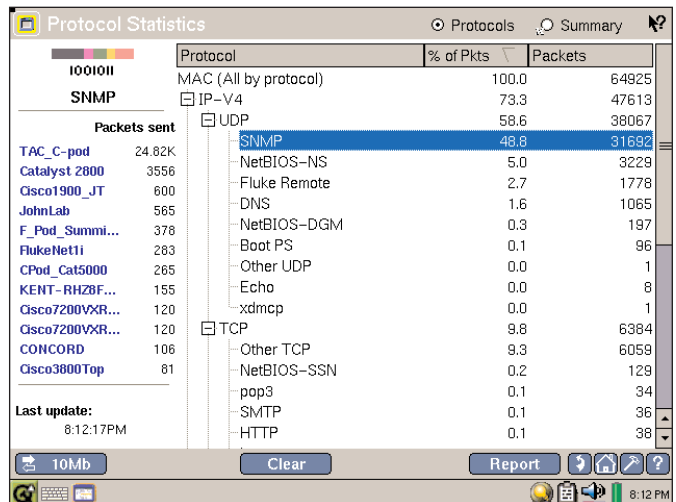
View your network's traffic statistics, including protocol mix, top senders, top broadcasters, and error sources. Identify and locate bandwidth hogs and isolate them from the network if necessary.

### Switch port diagnostics

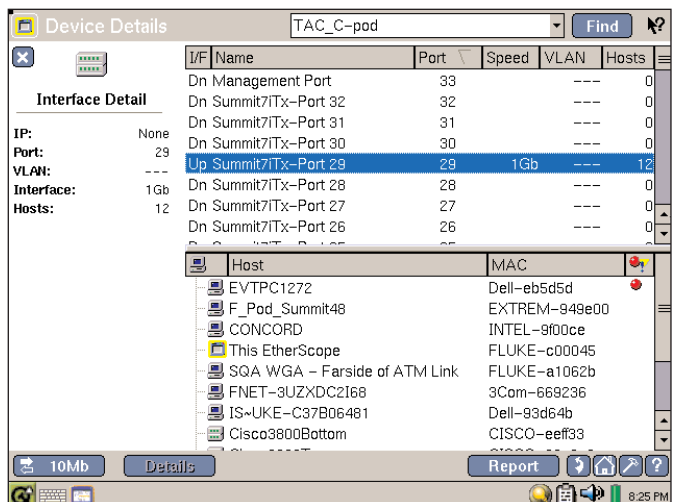
Look into your switched/VLAN networks for global problem identification at light speed. You'll see your VLANs via wired-side switch port analysis. Point to any remote SNMP/RMON device and track remote interface utilization.



Identify top talkers



Protocol statistics



Switch port diagnostics

### Detect and diagnose in real time

Get data about your network automatically for fast troubleshooting and problem resolution. Find duplicate IPs, duplex mismatches, and DHCP failures. Monitor switch-port statistics, identify and track all your VLAN devices. Drill-in on the *Problems Log* to evaluate each error, warning and informational message.

### Basic cable testing and signal diagnostics

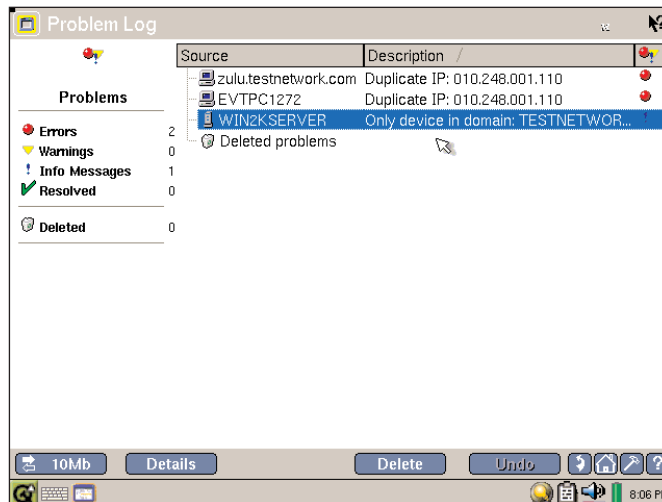
Isolate hardware or cable problems from other network issues. Identify length, shorts, opens, cross-over cables, miswires, and split pairs – even on live networks. Identify key elements of your link signal, including pulse-type and voltage, auto-negotiation advertisements, and fast-link pulse decodes. Deploying Power over Ethernet (PoE)? See the dc voltage levels present on each pin to verify proper operation.

### Utilities on-board for convenient field troubleshooting:

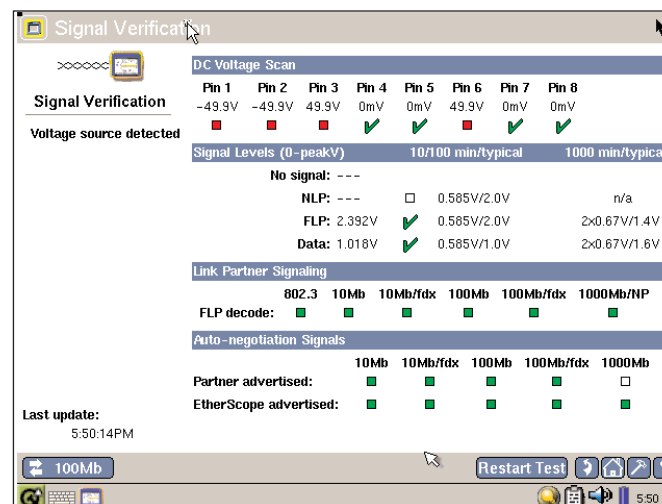
- Key Device Ping/Monitor
- TraceRoute
- Trace SwitchRoute
- IP Ping
- FTP
- Telnet
- Web Browser

### Trace SwitchRoute

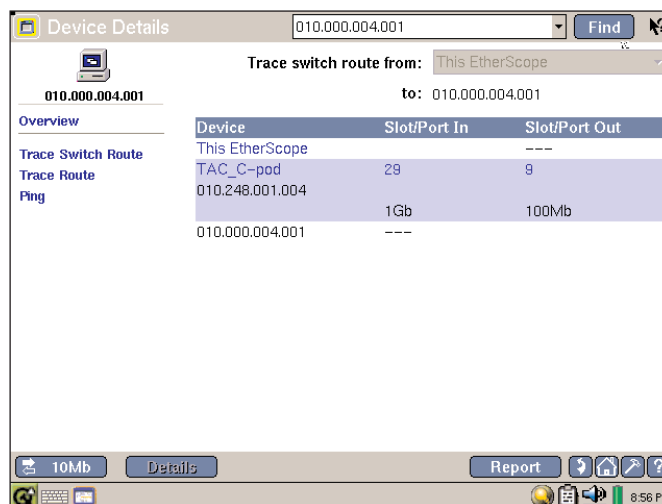
The MAC Layer Traceroute tool shows all Layer 2 connection paths throughout a switched network. That means your first-response network team finds nodes fast.



Problems log



Cable test results, showing PoE detection



Trace SwitchRoute



**Network reports**

Document your network with XML-coded reports. Record network attributes, baseline performance, device inventory, a problem log, and switch-port statistics – all in web-viewable files.

**Future enhancements**

EtherScope is designed for the future, with a robust processor, plenty of memory, a forward-looking Linux® operating system and a software update procedure that is a snap. Wireless, throughput, voice over IP, and fiber testing are just some of the future enhancements we are working on. As your network and your troubleshooting needs evolve, EtherScope grows with you. Your investment in EtherScope will serve you for years to come.

**FLUKE networks** **EtherScope™ Network Assistant**  
Device Discovery - All Devices  
Sep 3 09:09:36 2004

Name	MAC Address	IP Address	Properties	Switch	Slot/Port	VLAN
010.000.004.001	PRIMRY-06c588	010.000.004.001	---	---	---	---
tacvision2	LITEON-1c7b1a	010.248.001.110	---	Catalyst 2800	9	---
010.248.001.233	Linksys-580c95	010.248.001.233	---	TAC_C-pod	2	100
WIN2KSERVER	INTEL-cf1f4a	010.248.001.030	DHCP,DNS	TAC_C-pod	2	100
010.248.001.116	INTEL-cf17e1	010.248.001.116	---	Cisco1900_JT	1	---
TESTNET	INTEL-cf13dd	010.248.001.106	---	TAC_C-pod	2	100
WIN-2000-PRO	INTEL-bcc7a4	010.248.001.103	---	TAC_C-pod	2	100
CONCORD	INTEL-9f00ce	010.248.001.134	---	---	---	---
TAC-QGF330DGE2	INTEL-751f5a	010.248.001.111	---	Catalyst 2800	10	---
SIMULATION_SERV	INTEL-7505ab	010.248.001.089	MB	TAC_C-pod	9	100
W2K3SERVER	INTEL-52e91d	010.248.001.098	---	TAC_C-pod	2	100
NPIC63722	HP-c63722	010.248.001.099	---	TAC_C-pod	2	100
Catalyst 2800	GrdJun-e82c53	010.248.001.195	---	TAC_C-pod	9	100
010.248.001.100	FLUKE-c00074	010.248.001.100	---	---	---	---

Network reports

**EtherScope™ LAN Vision Suite**

The EtherScope LAN Vision Suite gives you the fast troubleshooting power and portability of the EtherScope Network Assistant. Teamed with OptiView™ Console and OptiView™ Protocol Expert, this suite provides portable network troubleshooting plus monitoring and protocol analysis capabilities.

OptiView Console network monitoring software quickly discovers and continuously monitors network devices while documenting their connectivity. With one look at the clearly organized data, you can quickly identify where the problem is and access the detailed information you need to resolve it quickly.

OptiView Protocol Expert software provides protocol analysis directly through the network interface card in the PC on which it is running. Its expert analysis feature pinpoints problems quickly and suggests corrective action. Extensive seven-layer decodes make it easy to identify and solve tough problems on switched segments.



EtherScope LAN Vision Suite



## EtherScope Network Assistant Specifications

<b>Media access</b>	10BASE-T, 100BASE-TX, and 1000BASE-TX
<b>Cable tests</b>	Length, wire map, shorts, split pairs, pin-to-pin connectivity via wire map
<b>Ports</b>	Hub/NIC connector (RJ-45) Wire map connector (RJ-45) RS-232C PC/Printer port (DB-9) USB port (external keyboard or mouse) CompactFlash® Card slot PCMCIA slot Microphone and headphone jacks Kensington lock receptacle
<b>Interface</b>	Menu-based color touch-screen display
<b>Operating system</b>	Embedded Linux® operating environment
<b>Battery</b>	Removable/rechargeable Li-Ion battery pack
<b>Dimensions</b>	20 cm x 16.5 cm x 5 cm (8 in x 6.5 in x 2 in)
<b>Weight</b>	0.9 kg (1.9 lbs)
<b>Warranty</b>	One year

## Ordering Information

Model	Description
ES-LAN	EtherScope Network Assistant, LAN Model includes rechargeable Li-Ion battery pack (installed), yellow protective holster, instrument case with carrying strap, adapter/battery charger, remote wire map unit (#1), 64 MB CompactFlash® card and CD containing user manual and other useful files.
ES-EXT-KIT	EtherScope Network Assistant, Wired LAN Analyzer Extended Test Kit includes EtherScope LAN model plus replacement battery, external battery charger, cable ID accessory, and USB mini keyboard accessories.
ES-LAN/OVC/PE	EtherScope LAN Vision Suite includes EtherScope Network Assistant, plus OptiView Console - 500 Node and Protocol Expert software packages
ES-LAN/OVC	EtherScope LAN Vision Suite/OVC includes EtherScope Network Assistant, plus OptiView Console - 500 Node software package
ES-LAN/PE	EtherScope LAN Vision Suite/PE includes EtherScope Network Assistant, plus Protocol Expert software package

## Options and Accessories

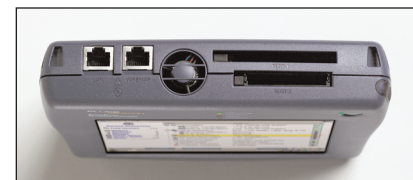
Model	Description
GLD-ES	Gold Priority Support - annual membership
ES-BATTERY	EtherScope replacement battery
ES-BATT-CHG	EtherScope external battery charger
WIREVIEW 2-6	Cable ID accessory
OPVS2-KB	Mini USB keyboard

## Network SuperVision Gold Support

Sign up for our Network SuperVision Gold Support plan and you'll enjoy privileges to protect and add value to your equipment. These include unlimited 24x7 technical assistance and an exchange unit at no cost in the event something happens to your unit. Support also includes web based training, unlimited access to the knowledgebase, product discounts and "members only" promotions. See [www.flukenetworks.com/goldsupport](http://www.flukenetworks.com/goldsupport) for details.



**Side Interfaces** – RS-232C serial port, USB port, microphone and headphone jacks, Kensington lock (opposite side).



**Top Interfaces** – 10/100/Gigabit port, wire map port, CompactFlash® and PCMCIA slots.

### 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](http://www.flukenetworks.com/contact).

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Printed in U.S.A. 9/2004 2132021 D-ENG-N Rev A