TestPort

TestPort Ethernet Protocol Analyzer

Gigabit Ethernet Packet capture with tap, and stream to disk option

GIGABIT ETHERNET ANALYSIS & CAPTURE

This test system includes an embedded tap with triggers and programmable filter allowing capture in real-time to an optional internal disk, or exported via a tap port out onto a LAN.

The test system includes analysis at speeds up to 1,000 Mbps at full linespeed.

SPECIFICATION OVERVIEW:

- Pass-through and Mirror
- Hardware filter & capture
- Hand-held Ethernet tap
- Filter, capture, tap and save in real-time
- Save to SD card or Optional 60 or 120 GB SSD HDD
- Zero Packet Loss
- NTP synchronisation
- PCAP format support
- VNC remote control
- 4.5h on batteries, 2.6 lbs
- IPv4 and IPv6
- A compact handheld device including screen, keyboard and batteries to operate at any location
- Captures and records full duplex at wirespeed
- Ready to monitor and capture critical data, protocols and VoIP
- Totally transparent on the line

PLATFORM

- Configuration, report storage and export through USB port or SD card
- TFT display true Color 4.3" LCD, 480 x 272px
- Operation time on batteries: 3.5 hours
- Capture local storage in CAP format
- Export through attached USB port
- Dimensions: 223 mm x 144 mm x 65 mm
- Weight: 1.1 kg (2.6lbs)

ABSOLUTE
A N A L Y S I S
VALIDATING SERIAL COMMUNICATIONS

Contact NextGig Systems   805-277-2400   www.nextgigsystems.com

Features

FOCUSSED TRAFFIC ANALYSIS

The TestPort Ethernet Protocol Analyzer uses switch technology to aggregate the traffic allowing full-duplex conversation monitoring, supporting forensic analysis quick and simple. Monitoring ports include SFP, RJ45 and Wi-Fi, while captured packets can be recorded in either PCAP format with NTP synchronization, tapped to a LAN or to the optional 60GB or 120GB SDD internal hard drive.

"Seamless packet capture for testing, troubleshooting and security "

UNDETECTABLE

This handheld test set does not have an IP or MAC address and works at full line rate and generating no delay, jitter or loss. It is therefore totally and absolutely invisible on the network.

Embedded Tap

All traffic is analyzed, including headers and payload, then filtering applied so that only IP flows compliant with the 32 programmable filters are captured.

Output to a LAN, or recorded onto the optional internal SSD disk. Recorded flows from can be output to PCAP and time stamp synchronized by NTP.

m-Layer BERT

Layer 1, 2, and 3 BER testing is supported, and this can be configured to use either regular PRBS test patterns, Gigabit Ethernet specific or user-defined test patterns to simulate real traffic conditions.

TRANSPARENT

The TestPort Ethernet Protocol Analyzer operates in two modes:

- Connect as a mirror port

- Pass through mode

Auto-negotiation or manual configuration is available. In either case, the tap does not use an IP or MAC address, and therefore cannot be detected. It is truly as transparent as a cable.

SMART RECORDING

Capture just the flows you need. With up to 32 programmable filters you can quickly set up capture and analysis in real time.
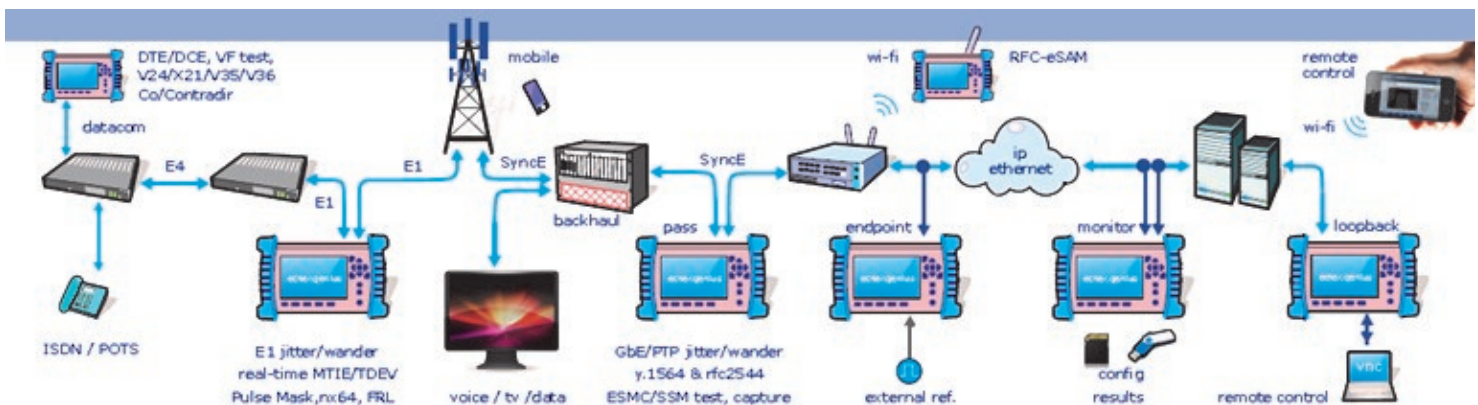
Features

NETWORK FEATURES

Formats & Protocols

- 10, 100, 1000 Mbit/s Ethernet

- IP, TCP/UDP, IEEE 802.3 • Ethernet frame: IEEE 802.3, IEEE 802.1Q, IEEE 802.1ad (Q-in-Q)

- IP packet: IPv4 and IPv6 • Jumbo frames: up to 10 kB MTU (Maximum Transmission Unit) • Configurable MTU size • Throughput between measurement LINE ports: 2x1 Gbit/s or 2x1,500,000 frames/s

- Autonegotiation parameters including bit rate (10, 100, and 1000 Mbit/s) and duplex mode

- Autonegotiation Full Setup or disabled

Ports and Interfaces

- LINE Ports: SFPs based 1 Gbit/s, SFP interfaces including: 10BASE-T, 100BASE-TX, 100BASE-FX, 1000BASE-T, 1000BASE-SX, 1000BASE-LX

- MIRROR Ports: Dual RJ-45 port for electrical connection 10/100/1000BASE-T

- Optional local Storage: 60 / 120 GBytes in PCAP format NTP synchronized

Operation

- LINE ports: GbE SFP interfaces are used to connect -in pass thought- to the network Host A and Host B

- MIRROR Ports: GbE RJ45 interfaces to forward captured packets to the protocol analyzer device (i.e. Wireshark)

- All frames coming to Net.Hunter are forwarded to destination without delay or lost

- Frames compliant with filtering conditions and copied to Wireshark device

- Operation is based on 16 filters per LINE port

- Filtered frames can be aggregated in one drop port

- When a packet satisfies a filter is sent to the Drop Port and immediately forwarded to the output (No more filters are processed)

- Each packet may modify only the statistics of one filter

- Customizable filters defined by field contents on Ethernet, IP, UDP and TCP headers

- Agnostic filters defined by 16 bits masks and user defined offset

- Lawful filter: 64 byte pattern match at any place in the frame payload

- Length filters applied to the full packet

- Pattern filters to be applied on payload fields

Continued . . .

ABSOLUTE
A N A L Y S I S
VALIDATING SERIAL COMMUNICATIONS

Contact NextGig Systems   805-277-2400   www.nextgigsystems.com

Features continued

Ethernet Filters

- Ethernet Flow: Source and destination MAC addresses (Selection of MAC address sets with masks)

- Ethertype value with selection mask

- VLAN-VID with selection mask, VLAN-CoS value with selection mask

- S-VLAN / C-VLAN with selection mask, S-VLAN / C-VLAN CoS value with selection mask, DEI

IP Filters

- IPv4 / IPv6 address: source, destination, and source-and-destination

- IP address group: subset of addresses filtered by masks

- Protocol encapsulated in the IP packet (TCP, UDP, Telnet, FTP, etc.)

- DSCP field, single value and range • TCP/UDP port, single value and range

Results

- Autonegotiation results including current bit rate, duplex mode, Ethernet interface

- SFP presence, vendor, and part number

- Traffic statistics per each of the Four Ports

- Statistics for both transmit and receive directions

- Frame counts: Ethernet, and IEEE 802.1Q

- Frame counts: unicast, multicast and broadcast

- Basic error analysis: FCS errors, undersized frames, oversized frames, fragments, jabbers, collisions

- Frame size counts: 64, 65-127, 128-255, 256-511, 512-1023, and 1024-1518 bytes

- Four byte counts: Port A (Tx / Rx) and Port B (Tx / Rx)

- All traffic counters follow RFC 2819

- Counters and statistics per filter (up to 16)

Service and Support

Absolute Analysis provides unsurpassed service to all TestPort™ users including remote diagnostics, extended warranties, and upgrade paths to current offerings from any system.

Training

Absolute Analysis offers comprehensive training courses for products and protocols. Training can be provided at your location or remotely, and can be customized to your requirements.

For More Information

Contact

NextGig Systems

805-277-2400

www.NextGigSystems.com

NEXTGIG SYSTEMS

ABSOLUTE ANALYSIS
VALIDATING SERIAL COMMUNICATIONS