



The Triple Play Analysis Suite - DATA

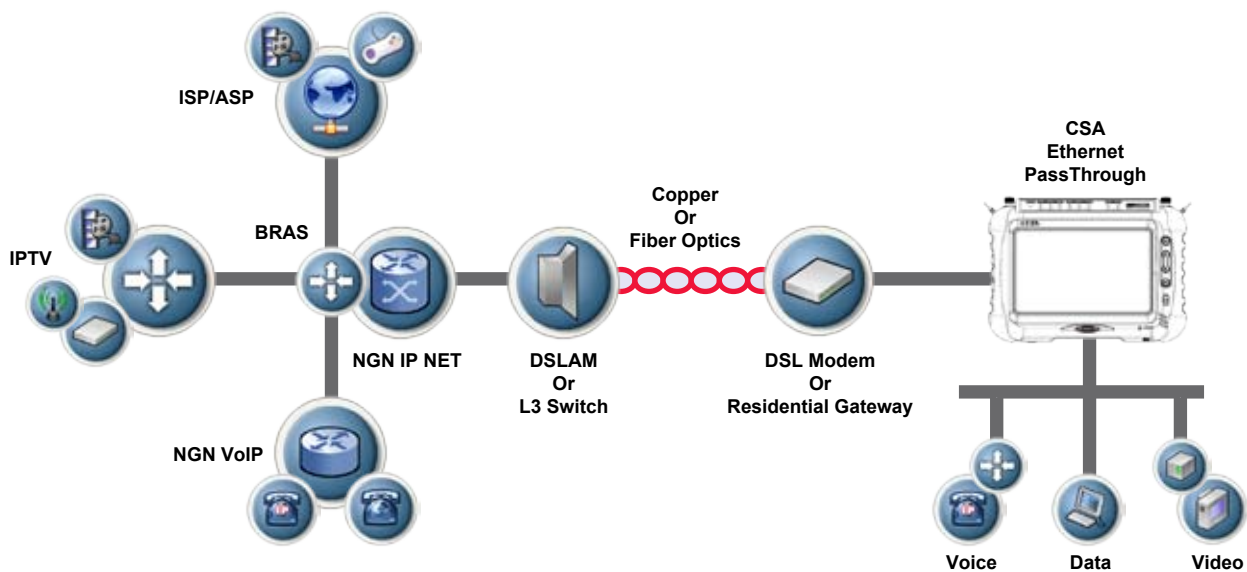
The Triple Play Analysis Suite - Data are meant for emulating the client's application such as FTP downloading or Web Browser testing at the termination point of DSL Modem or Ethernet interfaces and performing the Protocol decode desired to solve those hard to find application issues. The TPAS - Data is the application that assists the service provider during installation, testing, verification and troubleshooting of the Broadband Internet Service at client site.

Key Features

- Non-intrusive, complete network protocol decoding with plain mnemonics in English
- Ethernet traffic can be captured "off the wire" from a live network connection with up to 300 protocols supported for decode
- Off-line Analysis with support for Sniffer and Ethereal file formats, Up to 20 M bytes capture buffer
- Supports hardware based filtering to select the Ethernet/IP data captured for upper layer protocol decode via GigE TP PIM
- Internet application verified by Web Browser, FTP Service Tests, IP Ping and Trace Route at termination point of DSL Modem or Ethernet interface
- Option applicable for CSA's ADSL, VDSL and GigE Platform Interface Modules (PIM)

Ethernet IP Analysis *PIM-XXX-STPA-DATA*

The Ethernet IP Analysis option, a part of Triple Play Analysis Suite- Data, is a Ethernet/IP protocol analyzer that provides the detailed view of network traffic needed to determine the source of the problem. It allows user to decode the protocol from a mirror port of switch, or Pass-Through mode to sniffing and intercept the traffic through Ethernet IP Analysis software.

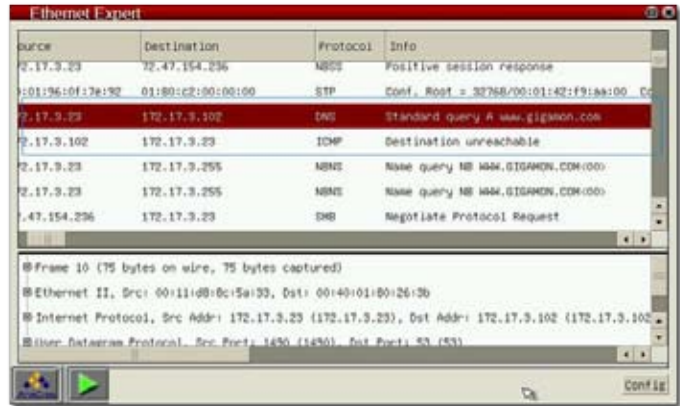


Decodes are an important part of a protocol analyzer because they determine the amount of visibility you have into network and application traffic. As a network visibility and troubleshooting tool, you can configure the Ethernet IP Analysis software to track all the protocol flow through the Ethernet interface of the PIM and/or CSA. Unlike other handheld physical installation tool with the ability restricted of finding the upper layer problem. The CSA's Ethernet IP Analysis software enables you to easily pinpoint the root cause of problems from the physical to application layer such as Response Time calculation on known TCP/UDP ports, IP address conflict, authentication failed and DNS lookup failure.



DNS Unreachable or URL Incorrect ?

In general, client laptop may not be able to receive proper error message to know if there is problem of DNS server until a sudden inspiration to perform Ping test to DNS server and get "No Response" result. More often than not, users always think the failure is caused by URL address incorrect. With CSA's Ethernet IP Analysis software, it allows you to intercept the real user traffic and decode to know the true the DNS server is Unavailable.



Client or Network Error ?

Ethernet Pass-Through mode provides a way to verify if the slow response is caused by user or network. For example, user computer is attacked or affected by backdoor virus. Every network activity will be affected and operator has to prove it to convince customers, Ethernet IP Analysis software allows you to monitor end user network traffic to know it's now broadcasting traffic and cause it's normal network activity like as WEB became slow.



TCP Response Time Measurement

More and more ISP encounter complains from their customer about response time, and it's complicated to identify the root cause of slow response or timeout via a general installation tool. Normally, it's suggested to use TCP Three-Way Handshake time to be network time. Please see following screenshot and you would find a Three-Way Handshake procedure, you can quickly subtract the TCP SYN time from TCP ACK time to get the relative value to know the network time of transaction. Of course you can check detail and calculate to get the end-to-end transaction response time and compare to network time to identify the slow response was caused by network, server or client.



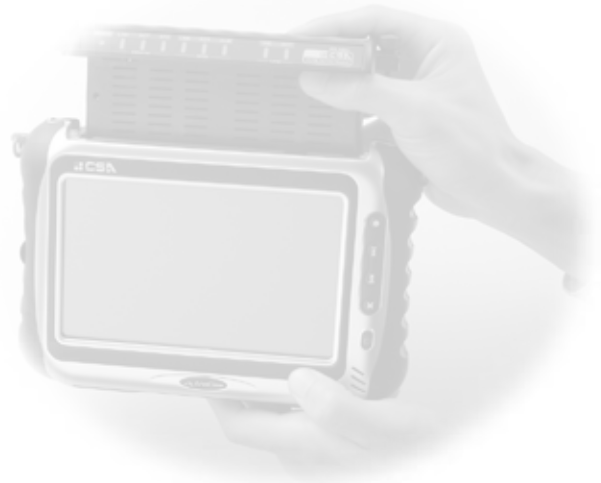
Decode in TCP SYN Arrival Time



Decode in TCP ACK Arrival Time

Variety of Decode Format

The Ethernet IP Analysis software analyze packets in the capture buffer and decode them in a variety of display formats.



↓ The Overview Decode Display Format



The **SUMMARY** shows an overview of the packets captured in line-by-line summarized format and The **HEX** displays the selected packet in hexadecimal and ASCII format.

Detailed Display Format →

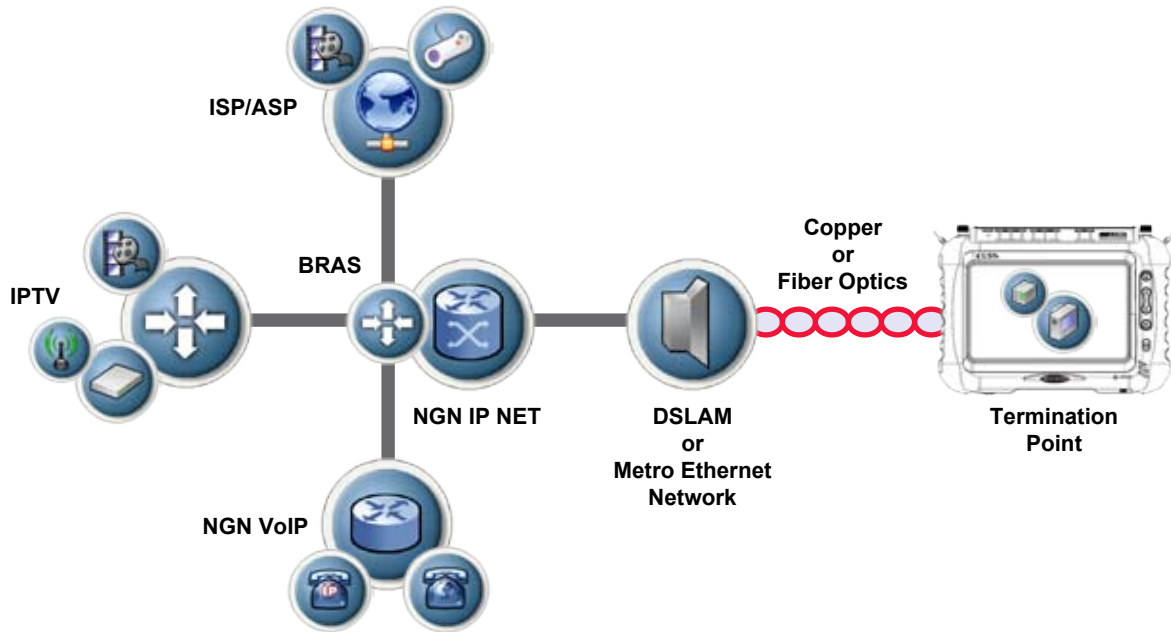


The **DETAILED** displays the detailed contents of the packet currently selected in the **SUMMARY** for complete network protocol decoding with plain mnemonics in English and there is an explanation of the use defined by IETF standard recommended.



Internet Service Test & IP Layer Test *PIM-XXX-STPA-DATA-IST/ILT*

When the engineer is going to the customer site for troubleshooting or provisioning an DSL line or MEN's Ethernet Gateway He will often find the DSL Modem or Gateway and last mile to be in good condition, but the end user equipment having problem to access the broadband service. With the Triple Play Analysis Suite -Data only one tool is needed as it provides you with a full toolbox for simulating the PC or server for the broadband service testing either at the termination point of DSL modem termination or Giga Bit Ethernet Interface, all the way from checking the IP connectivity by using the ICMP Ping or Trace route and the DHCP or DNS addressing properly to the client, testing FTP performance for both upload and download as well as HTTP Web Browsing.



With the Internet Service Test has taken the complete step and implemented a full WEB browser function. The WEB browser with link enabled features a very comprehensive set of important test functions giving you detailed information about packet layer throughput in upstream and downstream of WEB server you are trying to access. When running this kind of test and the response time from the remote Web host tends to be slow the question arises; where is the problem? The Internet Service Test leads you in the right direction by presenting all of detailed Ethernet traffic information, and at the same time you have all alarm information present with indication for physical link status.

Trace Route Testing

Setting up e.g. a Trace Route test is very easy and intuitive as all configurable parameters are presented in the same screen. When running either PING or Trace Route test you get very comprehensive information presented in the results screen. Including hop number, host name and IP address response time and status information for each hop.

ST 00:00:00 ET 00:00:00
Tracing to 213.254.253.188 16 342 ms

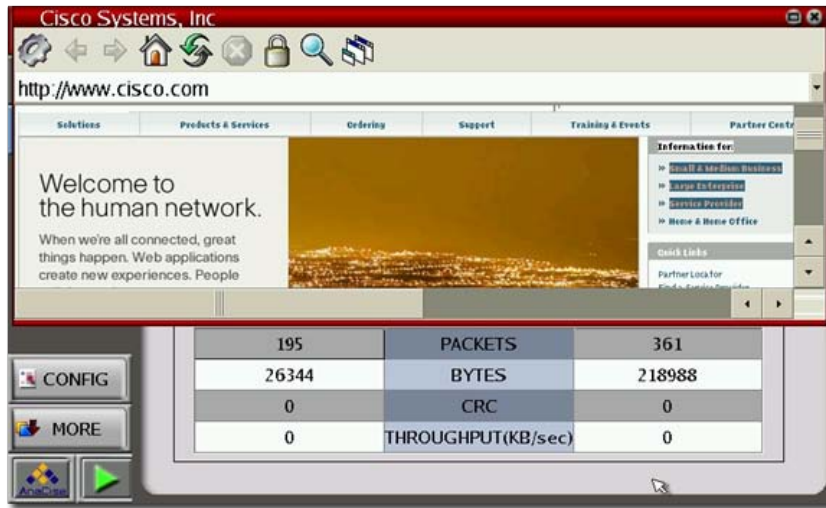
IP TEST CONFIG
PING# 10 TRACER 20 TARGET www.tiscali.net

TRACE ROUTE RESULTS

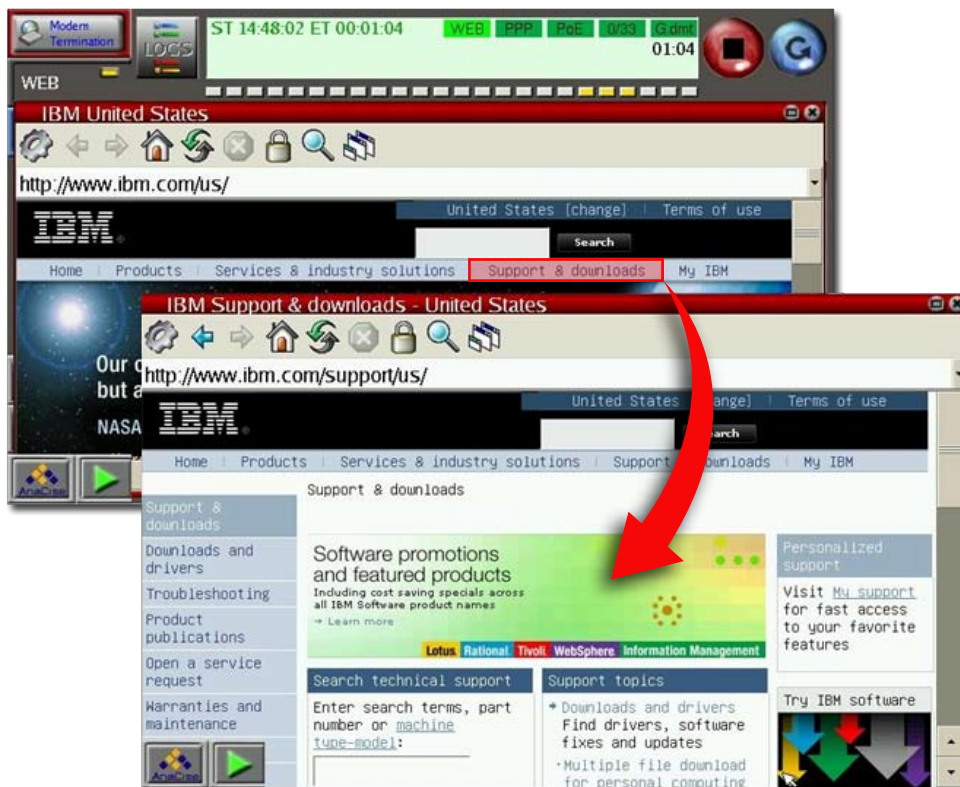
| HOPS | 15 | FROM | 220.137.160.165 | TO | 213.254.253.188 | | |
|------|----|------------------------------|-----------------------------|-----------------|-----------------|------|-----|
| HOP | 11 | HOST | tbr2032901.cgcil.ip.att.net | IP | 12.122.82.250 | ECHO | 169 |
| | 12 | 12.122.84.46 | | 12.122.84.46 | | 178 | |
| | 13 | 12.126.40.54 | | 12.126.40.54 | | 171 | |
| | 14 | pos-2-0.cag20.ip.tiscali.net | | 213.200.82.49 | | 337 | |
| | 15 | 213.254.253.188 | | 213.254.253.188 | | 342 | |

Web Browser Test

The other important part of WEB testing is “seeing is believe”. Click on “BROWSER” and you are taken straight to the powerful Konqueror Web Browser compliance. WEB browser allow operator to use CSA as end user laptop to access Internet, in the meantime you will also get the statistic information of connecting and downloading target WEB page as follows.



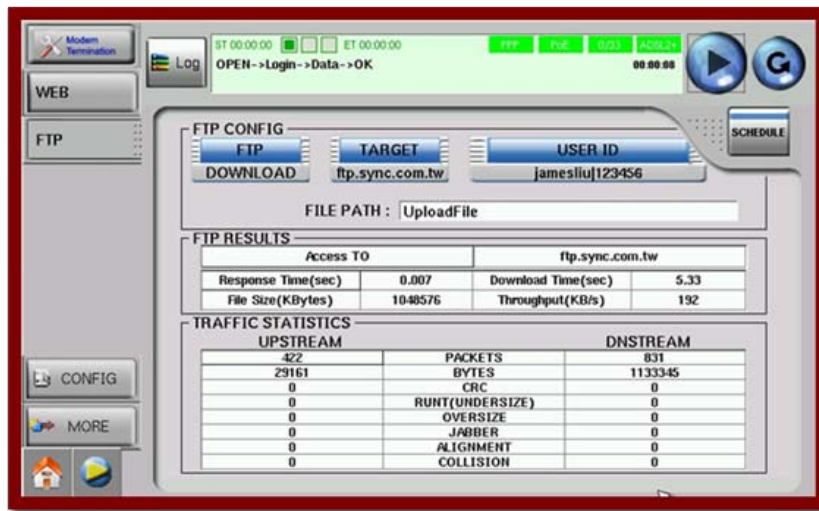
Through the incomparable WEB LINK function, users are allowed to link to further pages from home page to double check the WEB availability.





FTP Performance Test

FTP client testing is very useful when establishing a baseline towards either an ISP FTP server or an FTP server on the enterprise customer premises for an overall throughput and downstream performance evaluation with Ethernet traffic statistics.



FTP Up / Download Test With Traffic Statistics

Ordering Information

Do select appropriate part number/s of option/s within respective tables below with respect to the Platform Interface Module.

Please contact local business partner or AnaCise for product configuration clarifications.

ADSL Triple Play PIM

PIM-11A/B-ADSLA/B, PIM-12A/B-ADSLA/B, PIM-13A/B-ADSLA/B

PIM-1XX-STPAS-DATA

ADSL Triple Play Analysis Suite – Ethernet IP Analysis Option selected with EPT mode ONLY

GigE Triple Play PIM

PIM-4XS-GigE, PIM-4XD-GigE

PIM-4XD-STPAS-DATA

GigE Triple Play Analysis Suite – Ethernet IP Analysis Option selected with Dual Ports version

PIM-4XX-STPAS-DATA-IST/ILT

GigE Triple Play Analysis Suite – Internet Service Test and IP Layer Test Option selected with Single or Dual Ports version



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