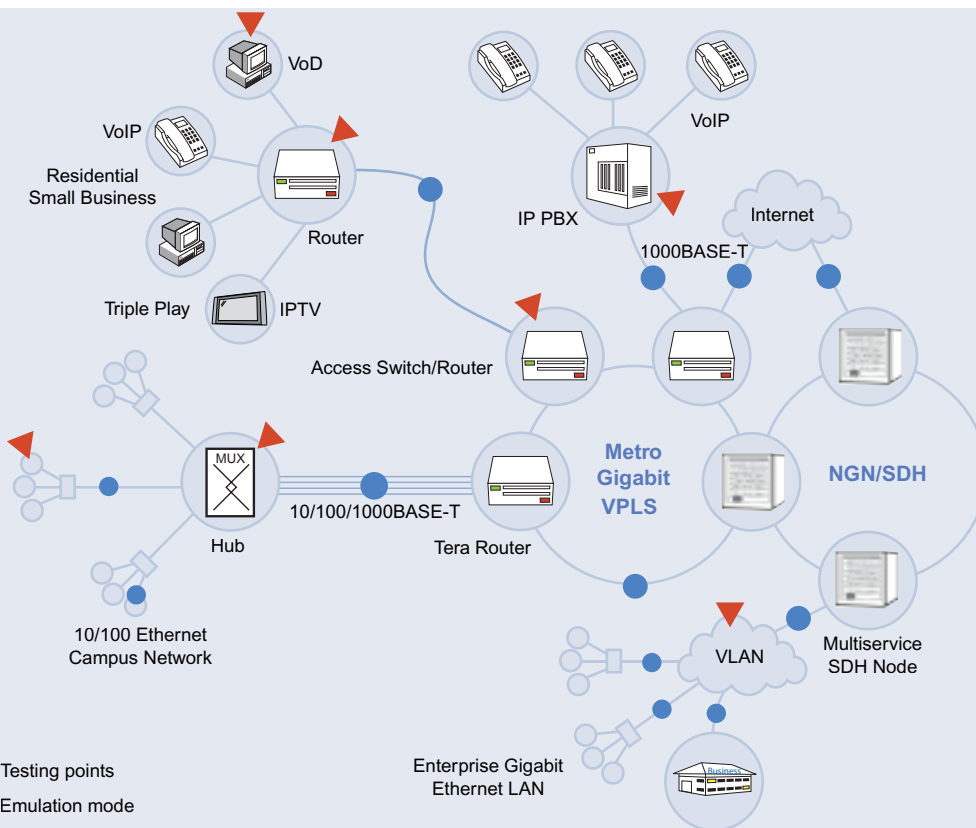


AuroraTango Gigabit Ethernet



Telecommunications are moving towards packet networking, and Ethernet has indeed proven to be a viable, compatible and cost-effective solution.

Operators and manufacturers are delivering converged services that will conquer metropolitan and access networks, and this is why Trend Communications designed Aurora Tango Gigabit Ethernet, your assistant in the installation, commissioning and troubleshooting of new broadband, datacom and triple play services.



- Multistream support
- Dual port
- 10/100/1000BASE-T autonegotiation
- RFC 2544 compliant
- Comprehensive traffic generator
- Operation modes: Terminate, Through and Monitoring
- Gigabit Ethernet commissioning
- Service Level Agreement (SLA) verification
- Class of Service (CoS) setup
- VLAN Q-in-Q capacity
- One-button PASS/FAIL test
- Physical, MAC, IP and VLAN verification
- Access and Metropolitan use

Service Deployment

and SLA Verification

The Ethernet Challenge

The emergence of Ethernet in Metropolitan Networks (MAN) is leading the migration from circuit-oriented to packet-oriented data networks. This means that Ethernet will have to face a variety of new physical-layer multiservice nodes and carry data over longer distances than before.

Thanks to its bandwidth capacity, flexibility and low cost, Ethernet is quickly becoming the most common interface for both data communications and multimedia applications like VoIP and IPTV.

Trend's Aurora Tango Gigabit Ethernet will help you to meet these challenges. This modular, extremely light and portable tool will be your personal assistant in service deployment and SLA verification.



Modularity, portability and ease of use

Installation and Commissioning

Aurora Tango Gigabit Ethernet ensures a quick setup and debug process for Ethernet installation up to 1 Gbit/s. It has the prime objective of:

1. Assisting and debugging physical layer installation (copper or fibre), using the optical power meter (fibre only), through continuity test, traffic generator and receiver.
2. Verifying the Ethernet network performance by RFC 2544 and G.826 testing.
3. Checking the network configuration, traffic admission, transmission errors and congestion control by using IP ping and trace route.
4. SLA certification, including traffic load, bandwidth, service reliability, latency and round trip delay.

- Quick and efficient tests
- SLA setup and verification
- Link-to-link and end-to-end analysis
- Automatic tests
- PDA: an advanced, user-friendly touchscreen interface

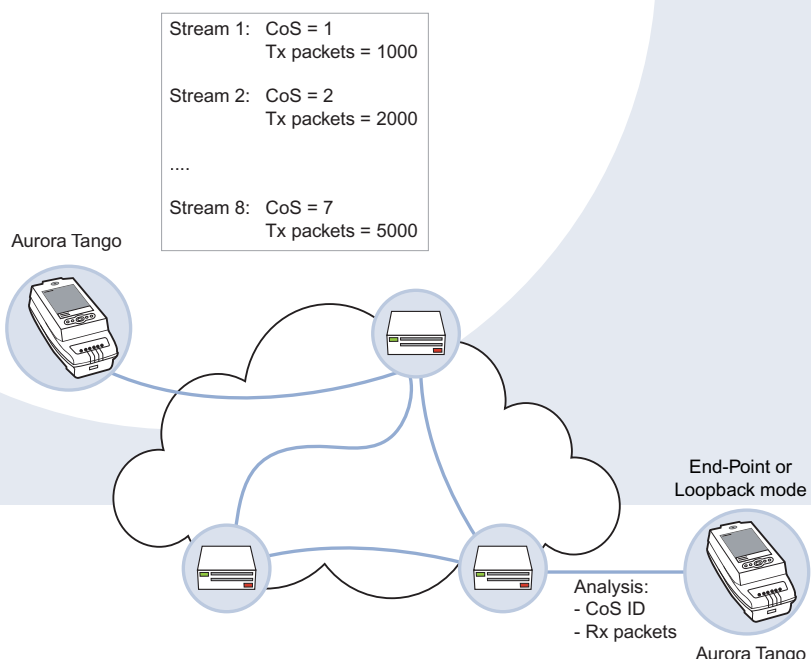
Maintenance

Once the Gigabit Ethernet network is deployed, you cannot just sit back and relax. Poor performance is bound to occur, and when it does, Aurora Tango will be there to help you to diagnose and fix the problem by testing the performance of the link – throughput, link utilisation and MAC errored frames.

Use Aurora Tango to test the IP and higher layers, analysing the packets on the network, for example UDP or TCP.

One of the most important features of Aurora Tango Gigabit Ethernet is its ability to generate real Ethernet traffic with differing Class-of-Service attributes by using the Multistream Traffic Generator.

If there is no traffic on the network, take advantage of the tester's Ping and Trace Route features to set up network paths and resolve routing mismatches.



$$\text{Packet loss rate (CoS)} = \frac{\text{Rx packets (CoS)}}{\text{Tx packets (CoS)}}$$

All the Test Applications

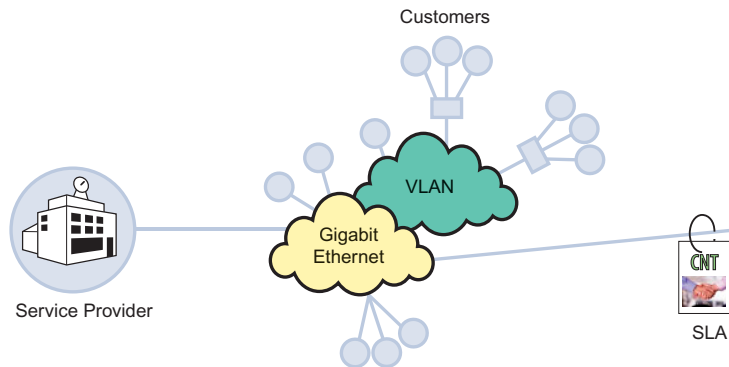
for Installation and SLA Maintenance

Copper/Fibre Installation

Aurora Tango Gigabit Ethernet is the most efficient assistant you can find for physical layer testing, for both copper and fibre.

For copper cables you can measure length, detect pair swap, polarity swap, skew, cable short/open circuit, impedance mismatch, and run a BERT.

If you are working with fibre, you can check continuity, measure optical power or run a BERT to measure quality.



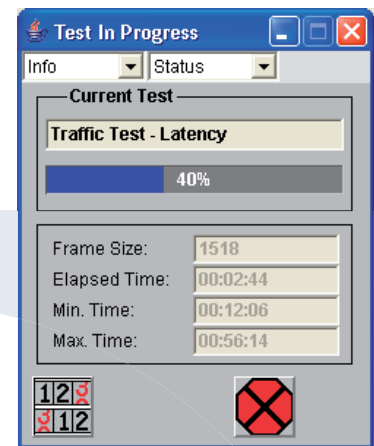
SLA setup and certification

Capture and Decoding

With Aurora Tango, you can choose between one or two bidirectional ports that you can use to capture traffic on a network. This way you can view the protocol activity and Ethernet layer performance statistics, for example packet counts by size and packet errors.

Thanks to Aurora Tango's capability to filter traffic by address, you can easily spot problems, saving time and resources.

The tester includes DNS/DHCP support, making configuration easier and more efficient.



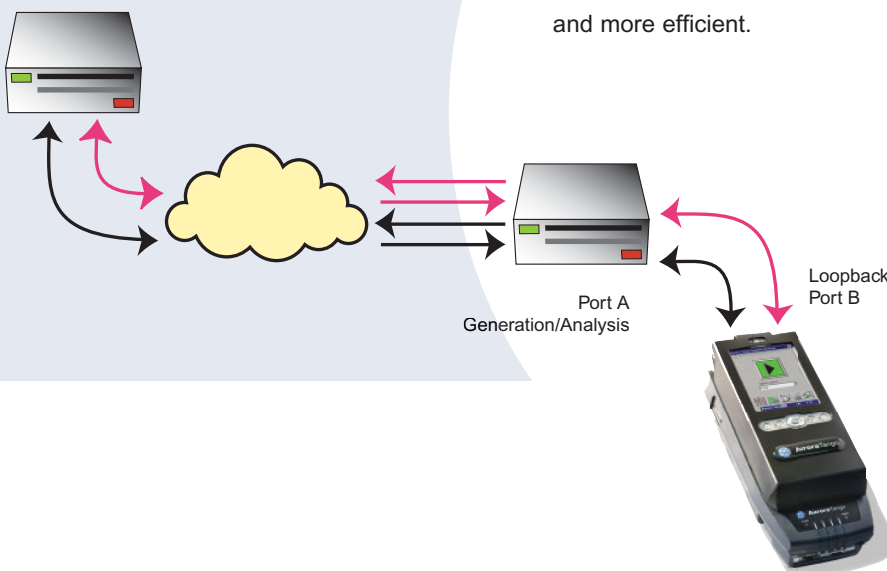
Traffic Generation

Aurora Tango's transmitter can simultaneously generate multiple traffic streams at full wire speed, so you can stress network links and nodes with ease.

Set up the traffic stream to include patterns, choose the address, or format the MAC and IP layers.

Carry out BERT at line rate on the Physical or IP layers. Insert errors and alarms to make sure that the far-end point is responding as it should and that the layer is managed correctly.

- Simultaneous traffic generation and analysis
- Programmable filters for frame and packet capture
- Physical, MAC, IP and upper layer analysis
- Cable and fibre testing
- Capture filter and packet export testing
- RFC 2819 compliant
- Traffic trace



End-to-end verification at Physical, MAC, or IP layer using two ports and loopback terminate mode



Trend Communications Ltd.

Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire SL6 8XY
United Kingdom

TrendCommunications

International: +44 1628 503500

United Kingdom: 01628 503529

France: 01 69 35 54 70

Deutschland: 089 32 30 09 30

España: 93 300 3313

China: 010 8518 3141

India: 11 25554161

Canada / Latin America: 1 256 461 0790

US Toll Free: 1 877 78TREND

Email: infoline@trendcomms.com

Web: www.trendcomms.com



A Subsidiary of IDEAL INDUSTRIES, INC.