

# Veryx ATTEST on Xena hardware

An affordable, high-performance platform for IP & Ethernet load stress, protocol conformance & functional verification testing.

## Innovative, comprehensive & cost-effective

Xena Networks and Veryx Technologies have created an innovative Ethernet test platform that combines Xena's high performance, wire-speed Ethernet test hardware with Veryx's broad portfolio of IP & Ethernet functional and conformance test suites. The result is an open, scalable, low-cost and highly customizable test platform that enables equipment and network test engineers to:

- Select (and pay for) only the Ethernet test capabilities needed
- Conduct Ethernet OAM testing in a transportable form factor
- Deploy Ethernet test capabilities as low-cost test "infrastructure"

Choose the test capabilities you need right now – with complete confidence that as your needs grow you can easily and cost-effectively scale the number and types of test ports, as well as add additional test suites.

## Features & Benefits

Scalable & Customizable	Lower cost by tailoring test solution to exact needs
Automated & Multi-user	Increase productivity and share all test resources
High Performance	Wire-speed traffic generation, capture & analysis
IP & Ethernet Test Suites	Carrier Ethernet, Layer 2/3 IPv4, IPv6, Security
Comprehensive Reporting	Programmable filters/triggers & WireShark export
Open Scripting Interface	Integrate into any type of testing environment

## Solve these problems

Choosing Veryx's ATTEST test solutions embedded on optimized Xena hardware helps you:

- Continue to enhance network device functionality and support newer protocol standards across multiple product lines in shorter timeframes
- Characterize load stress performance of network devices in terms of throughput, latency, loss and sequence/misordering errors
- Ensure that new network devices meet compliance and performance requirements prior to deployment
- Understand data forwarding behavior of switch ports when presented with data flows containing both valid and malformed data packets
- Verify device capability in handling data on selected interfaces at wire-speed
- Investigate network device behavior when handling valid and invalid protocol messages

## Joint Solution Components

What's new is the completeness of available features, the simplicity of implementation and ease of use. The components include:

### Xena Networks

- XenaCompact (single slot chassis)
- XenaBay (twelve slot chassis)
- XenaManager Software

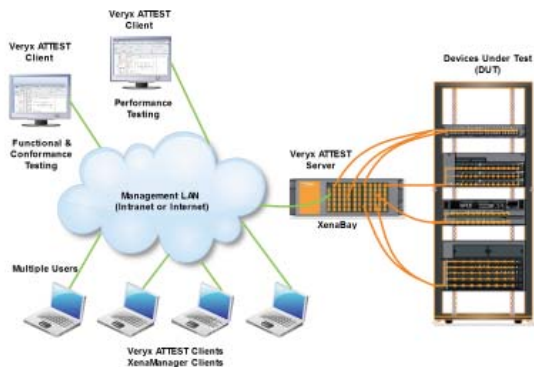
### Veryx Technologies

- ATTEST CTS - Conformance Test Suite
- ATTEST XP - Comprehensive Test Suite
- ATTEST Framework



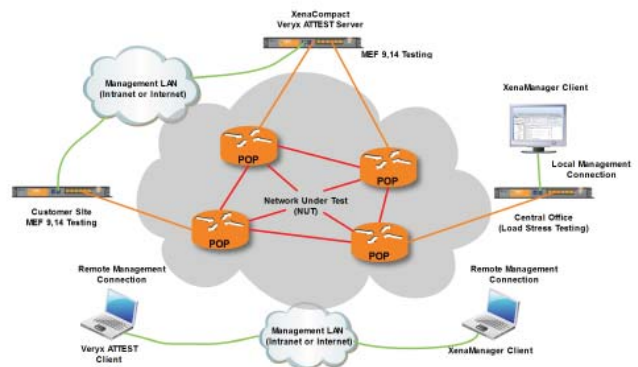
## IP/Ethernet Equipment Testing

In lab and manufacturing environments, ATTEST on the Xena platform is the cost-effective solution for OEM QA test applications requiring high-port-count testbeds.



## IP/Ethernet Network Testing

ATTEST on the Xena platform provides test engineers with a unique, transportable tool for network performance, SLA conformance and link/service OAM testing.



## Veryx's Extensive Set of ATTEST Test Suites

Veryx's ATTEST Test Suites enable functional & protocol conformance testing of IP/Ethernet networks & devices.

### Carrier Ethernet

#### Bridging

- PB
- PBB\*

#### OAM

- CFM (802.1ag)
- L-OAM (802.3ah)
- S-OAM (Y.1731)

#### MEF

- MEF 9
- MEF 14
- MEF 21

#### MPLS

- BFD-MPLS
- LDP
- L2-VPN (VPLS)
- MPLS-TP\*

### Layer 2

#### Bridging

- IGMP-Snooping
- LACP
- LLDP
- MSTP
- RSTP
- STP
- VLAN
- MRP-MVRP
- MRP-MMRP\*

#### Security

- 802.1X

#### Industrial

- MRP

### IPv4

#### Multicast

- IGMP v1/v2
- IGMPv3
- PIM-SM
- PIM-DM

#### Unicast

- BFD
- BGP4
- DHCP -Server/Relay
- IPv4
- IS-IS
- OSPFv2
- RIP
- VRRP

#### Security

- ACL, DOS
- NAT
- IPSec
- IKEv1, IKEv2

### IPv6

#### Multicast

- MLD-Router
- MLD-Listener
- PIM-SMv6
- PIM-DMv6

#### Unicast

- 6PE
- BGP4+
- IPv6-basic
- IPv6-tunnel
- IS-ISv6
- OSPFv3
- RIPng

#### Data Center

- DCBX
- PFC\*
- ETS\*

#### Backhaul

- G.8031\*
- G.8032

\* Note: Features currently in development

## Xena's High Performance Hardware Platform

Xena provides a flexible, high-performance hardware platform for a wide variety of Ethernet test applications.

Features	XenaCompact	XenaBay
Physical size	1RU	4RU
Rack mountable	Yes	Yes
Transportable	Yes	No
Supports 10/100/1000M	Yes	Yes
Number of 1Gb Ports (Copper and/or Optical)	1 to 6	1 to 72
Number of 10Gb Ports (Copper and/or Optical)	1 to 2	1 to 72
Number of 40Gb Ports	1 to 2	2 to 12
Number of 100Gb Ports	1	1 to 6
Wire-speed Operation	Yes	Yes
Simultaneous Operation	Yes	Yes
Support for RFC2544	Yes	Yes
Support for ATTEST Test Suites	Yes	Yes

## Next Steps

Learn more about the Ethernet test solutions developed by Xena Networks and Veryx Technologies by consulting the list of local resellers on our respective websites or contact either company using the contact details listed below.



### About Veryx Technologies

Veryx Technologies (formerly Net-O2 Technologies) provides innovative verification and measurement solutions for the global communications industry. Its flagship ATTEST testing framework is a robust, scalable and flexible test execution engine that helps customers reduce the time required for Ethernet testing and speed up their time to market.

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### About Xena Networks

Xena Networks develops low-cost, simple to manage and easy to scale Gigabit Ethernet test solutions. We offer robust, very high-density platforms and a range of modules for testing 1 through to 100 Gigabit via an international network of partners.

#### Xena Networks, ApS

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