Veryx ATTEST™ Y.1564 Field Test Functional Test Suite DATASHEET

Veryx ATTEST-XP Y.1564 Field Test Suite gives network service providers an efficient and effective standards based solution for measuring the performance of Ethernet-based services. ITU-T Y.1564 (formerly known as Y.156SAM) is an Ethernet Service Activation Test Methodology that helps service providers easily verifies the correct configuration and performance of Ethernet services at the time of service activation.

How Y.1564 is better than RFC 2544

Service providers had typically used the adapted RFC2544 test methodology, in the absence of any other published standard for service configuration verification and performance verification. However, this resulted in differing methodologies for Carrier Ethernet service configuration verification and performance verification.

ITU-T Y.1564 is a standard specifically developed for verifying the configuration and performance of Carrier Ethernet services prior to turning the service over to the customer for their use. It also includes verification of the Bandwidth Profile.

Though the throughput test in RFC2544 is useful for benchmarking switches and routers, in general, it is not good to generate line-rate traffic on an in-service switch since it may affect services to other consumers. Also, whereas RFC2544 latency test measures latency of one frame every two minutes, Y.1564 does not impose any such limitations.

Y.1564's burst test is fitted to the actual CBS and EBS service parameters of the bandwidth profile sold to the customer. When a traffic policer is used, RFC 2544 is inefficient because it does not test to the size and operational characteristics of the CBS and EBS parameters in the bandwidth profile. Similarly, RFC2544 does not differentiate color-aware and color-blind services.

Veryx ATTEST-XP Y.1564 Field Test

ATTEST Y.1564 significantly helps to verify an Ethernet Service prior to the service activation and customer delivery. ATTEST Y.1564 provides quick verification of Ethernet services for configuration and performance using the methodology specified by ITU-T Y.1564 Standard.

ATTEST Y.1564 relies on ATTEST -- a powerful test framework that requires minimal time for setup and enables efficient use of time and resources. ATTEST with its automated capabilities enables significant speeding up of testing process and reduces the time to turn on an Ethernet service.

Veryx has devised a group of test cases that comprehensively test the test conditions specified in the Y.1564.

Verifying Point-to-Point services

As shown in **Figure 1,** ATTEST-XP Y.1564 can be used to verify the Point-to-Point Carrier Ethernet (EPL/EVPL) services in a field deployment.

ATTEST-XP Y.1564 test suite supports a group of test cases to verify service conformance and service performance of Point-to-Point Carrier Ethernet Services. These test cases are functionally grouped such that they verify CIR configuration, CBS configuration, EIR configuration, EBS configuration and Policing of the traffic over the Carrier Ethernet service. The service performance verification test case verifies the performance of the Carrier Ethernet service and can simultaneously verify up to 4 Classes of Services over a single Carrier Ethernet Service.

FEATURES

★ Measures the Performance Metrics and compares with the SAC objectives:
  o One-way - Frame Delay Variation, Frame Loss Ratio
  o Round trip - Frame Delay, Frame Delay Variation and Frame Loss Ratio
★ Tests performance metrics for different frame sizes
★ Verifies Point-to-Point, Multi-point-to-Multi-point and Rooted Multi-point services
★ Performs Short, Medium and Long term testing

SPECIFICATIONS

★ ITU-T Y.1564
★ MEF 6.1
★ MEF 10.2

PLATFORM REQUIREMENTS

★ ATTEST 6.x Framework
★ ATTEST XC-1000/XB-2000 system
★ 2 Ethernet ports (Point-to-Point)
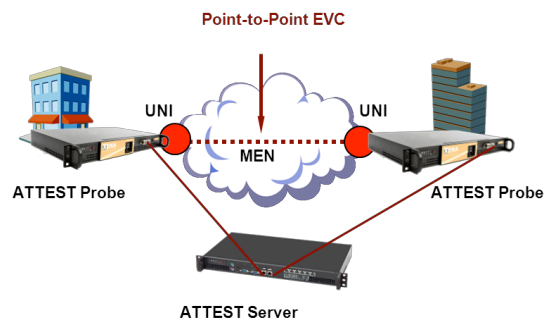★ 3 Ethernet ports (Multipoint-to-Multipoint, Rooted Multipoint)

Figure 1: Typical test setup to verify point-to-point Ethernet Services deployment

Contact NextGig Systems, Inc.
805-277-2400
www.NextGigSystems.com

Veryx

Veryx ATTEST™ Y.1564
Functional Test Suite DATASHEET

Verifying Multipoint-to-Multipoint Services, Rooted Multipoint Services

As shown in **Figures 2 and 3,** ATTEST-XP Y.1564 can be used to verify Multipoint-to-Multipoint, Rooted Multipoint Carrier Ethernet services.

ATTEST-XP Y.1564 test suite supports a group of test cases to verify service conformance and service performance of Multipoint-to-Multipoint Carrier Ethernet Services and Rooted Multipoint Carrier Ethernet services. These test cases are functionally grouped such that they verify CIR configuration, CBS configuration, EIR configuration, EBS configuration and Policing of the traffic over the Carrier Ethernet service.

Together with ATTEST-CTS MEF 9, MEF 14 and MEF 21 test suites, Veryx provides a complete set of tests for preparation towards MEF conformance requirements. Test suites for IPv4, IPv6 and Layer-2 bridging are also available.
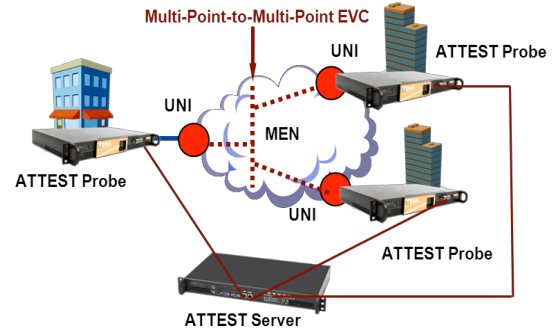
Figure 2: Typical test setup to verify multi-point-to-Multi-point Ethernet Services deployment
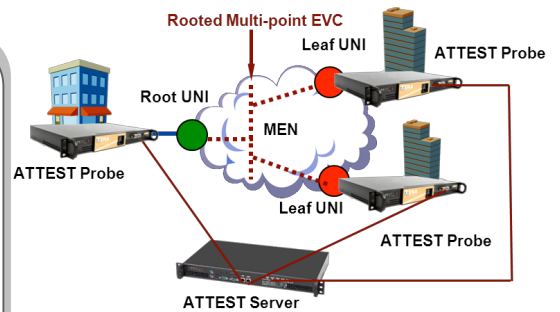
Figure 3: Typical test setup to verify rooted Multi-point Ethernet Services deployment

ORDERING INFORMATION

PRODUCT	PART NUMBER
Software	
ATTEST-XP Y1564 Field Test - Point to Point Services	XP-Y1564-FT-PP-B
ATTEST-XP Y1564 Field Test - Point to Point, Multipoint to multipoint and Rooted Multipoint Services	XP-Y1564-FT-B
Framework	
ATTEST-Framework-Server 6.x with 1 Remote ATTEST-Client - Windows & FC	FW6S-1FW6C-B
Hardware	
XC-1000 System with 6 port 10/100/1000M SFP slots (fixed) OR	XC-1000-M6SFP
XB-2000 12 slot Chassis (with one of the following cards):	XB-2000-C4-12
XB-2000 6 port SFP (optical 100/1000M, 10/100/1000M BASE-T) card	XB-2000-M6SFP
XB-2000 6 port 10-GigE SFP+ 10GBASE-SR/LR optical card	XB-2000-M6SFP+

About Veryx Technologies

Veryx Technologies (formerly Net-O$_2$ Technologies) provides innovative Verification and Measurement Solutions for the global communications industry. ATTEST solutions verify networking equipment being used for Access, Carrier Ethernet, Data Center, Edge, Enterprise, Industrial and Security. The unique offerings from Veryx enable customers to reduce the "time-required-to-test" and enhance their "time-to-market".

Veryx™ and Veryx ATTEST™ are trademarks of Veryx Technologies. All other trademarks of respective owners are acknowledged.