



Veryx ATTEST™

Carrier Ethernet OAM Test Solution DATASHEET

Veryx ATTEST Carrier Ethernet OAM (CE OAM) Test Solution provides Carrier Ethernet Equipment Manufacturers and Service Providers an easy and efficient solution for verification of CFM (IEEE 802.1ag), Service OAM (ITU-T Y.1731) and link OAM (802.3-2005 Clause 57) implementation in devices deployable in carrier Ethernet network. ATTEST enables significant speeding up of testing cycles and reduces the "time-to-market".

Veryx ATTEST CE OAM test solution relies on ATTEST – a powerful test framework that requires minimal time for set-up and enables efficient use of time and resources.

Veryx ATTEST CE OAM is designed for conformance and functional testing of OAM functions in Carrier Ethernet network equipment.

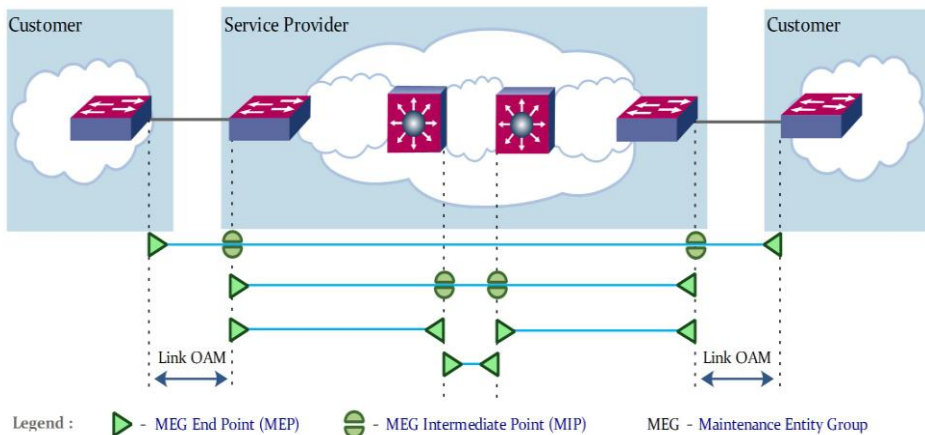


Figure 1: Sample Carrier Ethernet network with OAM functionality

Veryx ATTEST CE OAM test cases have been conveniently grouped for each category of functions, in each of the test suites.

SPECIFICATIONS

- ★ IEEE 802.1ag (2007)
- ★ ITU-T G.8013/Y.1731 (07/2011)
- ★ ITU-T G.8013/Y.1731 (02/2008)
- ★ IEEE 802.3-2005 Clause 57

KEY TESTS

- ★ MEP (Up/Down)
- ★ MIP
- ★ CCM – 3.3ms support
- ★ Multiple peers MEPs
- ★ Multiple MEGs
- ★ Synthetic Loss Measurement
- ★ Frame format
- ★ Link OAM Discovery state machine
- ★ Link OAM Event notifications
- ★ Link OAM Remote loopback

PLATFORM REQUIREMENTS

- ★ ST-1000/ ST-2000 or XC-1000/ XB-2000
- ★ ATTEST 6.x Framework

CFM (Total test cases – 231)

- Maintenance Association End Point (MEP) functions
- Maintenance Association Intermediate Point (MIP) functions
- Verification of Continuity Check Protocol
- Verification of Loopback Protocol
- Verification of Linktrace Protocol
- Support to verify transmission and handling of various TLVs
- Verification of alarms on fault conditions
- Verification of MEPs on multiple ports, several MDs and MAs
- Emulation of MIPs to verify cataloging of LTRs (up to **254** MIPs), and Robustness tests

Link OAM (Total test cases – 125)

- Discovery process
- Remote loopback Initiation and handling
- Verification of critical events
- Event notifications for various link events
- Handling and generation of Variable Request and Response messages
- Verification of state machine
- Simultaneous operation on multiple ports
- Support to verify multiple variables descriptors/containers during variable retrieval



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SOAM (Total test cases – 201)

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| <ul style="list-style-type: none"> • MEG End Point (MEP) functions • MEG Intermediate Point (MIP) functions • Transmission and handling of CCMs • Cataloging of CCMs from peer MEPs • Detection and recovery from defect conditions • Transmission and handling of Loopback messages • Data TLV support in Loopback messages • Transmission and handling of Linktrace messages • Cataloging of Linktrace replies • Transmission and handling of Alarm Indication Signals • Transmission of Test messages • Transmission and handling of Synthetic Loss Measurement (ETH-SLM) messages • Simultaneous ETH-SLM with multiple peer MEPs • Transmission and handling of Loss Measurement Messages • Transmission and handling of Delay Measurement Messages of different frame size and to multiple peers | <ul style="list-style-type: none"> • Transmission and handling of Client Signal Fail messages • Independent MEG levels • Verification of different CCM intervals - 3.33ms, 100ms, 10ms, 1s, and 10s • Scalability of MEGs – support to verify up to 832 MEGs per port • Scalability of MEPs – support to verify up to 3000 MEPs per port • Support to verify handling of up to 3000 peer MEPs per port • Alarm Indication Signal and Locked Signal for several client level MEGs • Out-of-service tests • Negative test scenarios |
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ATTEST Test Suites are written in industry standard Tcl scripts. Well defined APIs and source files provide the flexibility to add, customize or modify the test cases for specific requirements.

Veryx ATTEST Framework helps customers to easily integrate device under test for automation – using CLI / SNMP (v1 / v2 / v3). It also provides a standard interface to integrate with home-grown automation systems.

For more information, kindly visit our website or contact us.

ORDERING INFORMATION

PRODUCT	PART NUMBER	PLATFORMS SUPPORTED	
		ST	XC / XB
ATTEST-CATS CFM	CATS-CFM-B	✓	✓
ATTEST-CTS CFM	CTS-CFM-B	✓	✓
ATTEST-XP CFM	XP-CFM-B	✓	✓
ATTEST-CATS Y.1731	CATS-Y1731-B	✗	✓
ATTEST-CTS Y.1731	CTS-Y1731-B	✓	✓
ATTEST-XP Y.1731	XP-Y1731-B	✗	✓
ATTEST-CATS EFMOAM	CATS-OAM-B	✓	✓
ATTEST-CTS EFMOAM	CTS-OAM-B	✓	✓
ATTEST-XP EFMOAM	XP-OAM-B	✓	✓

About Veryx Technologies

Veryx Technologies (formerly Net-O2 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”.

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