Veryx

Veryx ATTEST™ MVRP
Conformance Test Suite DATASHEET

Veryx ATTEST™-CTS Multiple VLAN Registration Protocol (MVRP) automated test suite provides Equipment Manufacturers and Service Providers an easy and efficient solution for verification of MVRP implementation on Provider and Customer edge devices. **ATTEST** enables significant speeding up of testing cycles and reduces the "time-to-market".

Veryx ATTEST MVRP Conformance Test Suite is designed for conformance testing of Multiple VLAN Registration Protocol using ATTEST-- a powerful test framework that requires minimal time for set-up and enables efficient use of time and resources.

Veryx has devised around 90 test cases that comprehensively test for MVRP conformance. These test cases have been grouped into 9 convenient test groups based on the IEEE specifications for each category of functions.

MVRP test cases perform conformance testing for Dynamic VLAN registration and de-registration conditions, Re-declaration during topology change (only for the affected VLAN(s)) and Flushing of learnt attributes during topology change. Test cases verify Participant types - Full participant, Applicant only participant, Registrar administrative control for Normal, Fixed and Forbidden modes and Applicant administrative control for Normal participant and non-participant roles. The packet format of MVR protocol data units transmitted by the MVRP switch are also checked by the test cases. In addition, the management interface for MVRP is also verified.
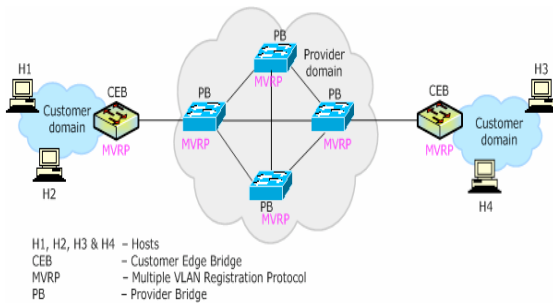
SPECIFICATIONS

IEEE 802.1ak™-2007

IEEE 802.1ak™-2007/Cor 1/D3-0

MVRP TESTS

* Applicant state machine

* Registrar state machine

* LeaveAll state machine

* Periodic Transmission state machine

* VLAN registration & de-registration

* Administrative controls for both Registrar and

* Applicant

* Re-declaration during topology changes

* Flushing of registered attributes during topology changes

* Management support for MVRP

* MVRP message formats

* Invalid MVRPDU handling

PLATFORM REQUIREMENTS

* ATTEST 6.x Framework

* 3 Ethernet ports

* Serial or additional Ethernet port for DUT management

H1, H2, H3 & H4 – Hosts
CEB – Customer Edge Bridge
MVRP – Multiple VLAN Registration Protocol
PB – Provider Bridge

Figure 1: Example of a provider network supporting MVRP

MVRP Conformance Test Suite is 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.

Together with test suite for MVRP, Veryx provides a wide range of solutions for conformance testing of layer-2 bridging, Carrier Ethernet and layer-3 IPv4/IPv6 protocols. Comprehensive test suites for the same are also available.

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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