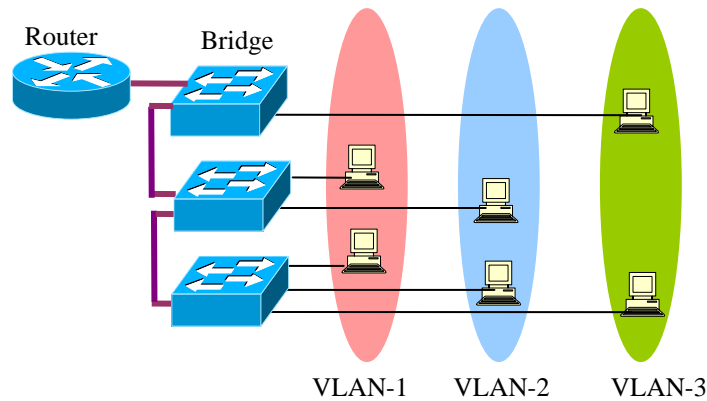


## VLAN Conformance Test Suite

The Net-O<sub>2</sub> ATTEST™ Virtual LAN (VLAN) automated test suite provides Equipment Manufacturers and Service Providers an easy and efficient solution for verification of VLAN implementation in Ethernet Switches being deployed for applications in networks such as Metro Ethernets and Enterprises. ATTEST enables significant speeding-up of testing cycles and enhanced “time-to-market”.



**Figure 1. Example of Network showing VLAN functionality**

### Product Overview

ATTEST VLAN *Conformance Test Suite* is designed for conformance testing of VLAN with ATTEST -- a powerful test framework that requires minimal time for set-up and enables efficient use of time and resources.

Net-O<sub>2</sub> has devised around 115 test cases that comprehensively test for VLAN conformance to IEEE 802.1Q™-2003. These test cases have been grouped into 8 convenient test groups based on the IEEE specification for each category of functions.

#### VLAN tests

- ❖ Frame Formats
- ❖ Basic Spanning Tree
- ❖ Ingress Egress Rules
- ❖ Filtering database
- ❖ GVRP
- ❖ VLAN Bridge Management
- ❖ Port and Protocol based VLAN Ingress Egress
- ❖ Port and Protocol based VLAN Bridge Management

#### Specifications

- ❖ IEEE Std 802.1D 1998
- ❖ IEEE Std 802.1D™ 2004
- ❖ IEEE Std 802.1Q™ 2003

ATTEST VLAN test cases perform verification of VLAN related aspects such as Filtering Database, Ingress Egress Rules, Static VLANs and Dynamic VLANs using GVRP (as defined by IEEE Standards 802.1D-1998 and 802.1D™-2004).

ATTEST VLAN test cases also perform conformance verification of Port and Protocol based VLANs for various Protocols and Frame types. All spanning tree modes, STP, RSTP and MSTP, are supported as the underlying active topology.

ATTEST VLAN 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.

Together with MSTP, RSTP, LLDP, VLAN and 802.1X Net-O<sub>2</sub> provides one of the most comprehensive solutions for Layer-2 conformance testing. Layer-3 IPv4, BGP4+, ISISv6, RIPng, OSPFv3, IGMPv1v2/v3, PIM-DM/SMv6, Carrier Ethernet and Layer-2 Switch Test suites such as VLAN, RSTP, STP, 802.1X and LACP are also available.

### Minimum Platform

- ❖ ATTEST 4.x or 6.x Framework
- ❖ 4 Ethernet ports
- ❖ Serial or additional Ethernet port for DUT management

## ABOUT Net-O<sub>2</sub> TECHNOLOGIES

Net-O<sub>2</sub> is an innovative communications products company that provides solutions in the Testing and Test Automation domains. The unique offerings from Net-O<sub>2</sub> enable customers to drastically reduce the “time-required-to-test” and enhance their “time-to-market”. Net-O<sub>2</sub> offers a wide range of automated test suites to address IP Protocols, Layer 2 Protocols and related standards.

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