

LLDP Conformance Test Suite

The Net-O₂ ATTEST™ Link Layer Discovery Protocol (LLDP) automated test suite provides Equipment Manufacturers and Service Providers an easy and efficient solution for verification of LLDP implementation. ATTEST enables significant speeding up of testing cycles and reduces the “time-to-market”.

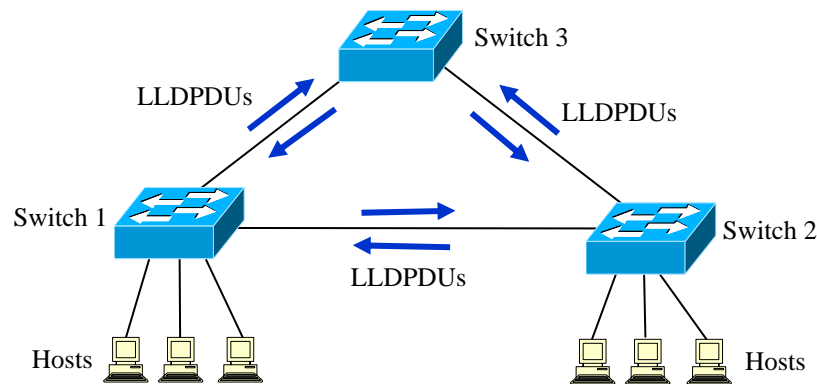


Figure 1. Example Network supporting LLDP

Product Overview

ATTEST LLDP *Conformance Test Suite* is designed for conformance testing of Link Layer Discovery Protocol using ATTEST-- a powerful test framework that requires minimal time for set-up and enables efficient use of time and resources.

Net-O₂ has devised approximately 149 test cases that comprehensively test for LLDP conformance. These test cases have been grouped into 7 convenient test groups based on the IEEE specifications for each category of functions.

LLDP tests

- ❖ LLDPDU Frame Format
- ❖ LLDPDU Transmit
- ❖ LLDPDU Receive
- ❖ LLDPDU Basic Management TLV Handling
- ❖ LLDPDU Organizationally Specific TLV Handling
- ❖ LLDPDU Local Management
- ❖ LLDPDU Remote Management

Specifications

- ❖ IEEE 802.1AB – 2005

ATTEST 802.1AB LLDP test cases perform conformance testing for verifying:

- ❖ Format Check of LLD Protocol Data Units (LLDPDUs).
- ❖ Behaviour of the LLDP agent for transmission of mandatory and optional TLVs in transmit-only and transmit-and-receive-only mode.
- ❖ Updation of reception counter and neighbour information in receive-only and transmit-and-receive-only mode.
- ❖ Criteria for discarding various mandatory basic management TLVs and organizationally specific TLVs in LLDPDU.
- ❖ Management configuration in local LLDP agent.
- ❖ Updation of neighbour information on reception of different MSAP Identifier in LLDPDU from remote LLDP agent.

ATTEST LLDP 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 other Layer-2 Switch Test Suites such as RSTP, STP, MSTP, IGS and Ethernet OAM, Net-O₂ provides one of the most comprehensive solutions for conformance testing of Ethernet Switches. Carrier Ethernet and Layer-3 Test suites like IPv6, IPv4, OSPF, IGMP, BFD and PIM 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-O₂ TECHNOLOGIES

Net-O₂ is an innovative communications products company that provides solutions in the Testing and Test Automation domains. The unique offerings from Net-O₂ enable customers to drastically reduce the “time-required-to-test” and enhance their “time-to-market”. Net-O₂ offers a wide range of automated test suites to address IP Protocols, Layer 2 Protocols and related standards.

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