

LDP-MPLS Conformance Test Suite

The Net-O₂ ATTEST-CTS™ Label Distribution Protocol (LDP) for Multi-protocol label switching (MPLS) automated test suite provides Equipment Manufacturers and Service Providers an easy and efficient solution for verification of LDP-MPLS implementation on Provider Edge and Provider devices. ATTEST enables significant speeding up of testing cycles and reduces the “time-to-market”.

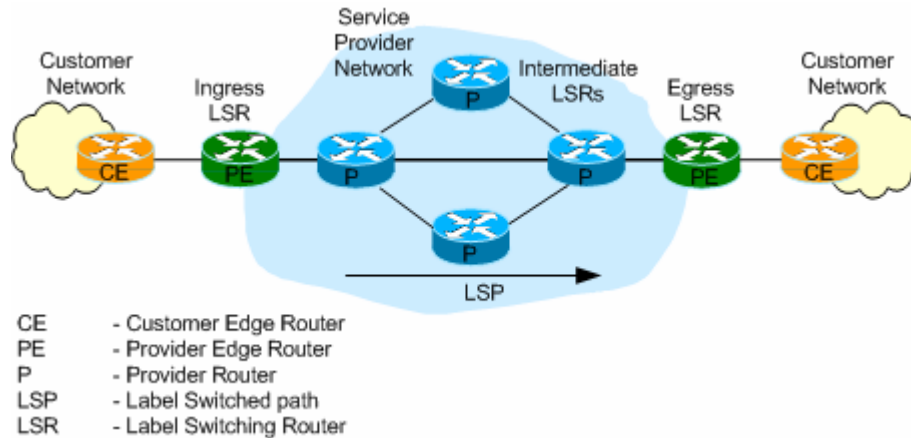


Figure 1. Example Network supporting LDP

Product Overview

Net-O₂ ATTEST-CTS™ LDP-MPLS Conformance Test Suite is designed for conformance testing of Label Distribution 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 436 test cases that comprehensively test for LDP conformance. These test cases have been grouped into 10 convenient test groups based on the IETF specifications for each category of functions.

LDP tests

- ❖ Discovery mechanism
- ❖ Session Establishment
- ❖ Session State Machine
- ❖ Label Distribution and Management
- ❖ Frame Format
- ❖ Event Generation
- ❖ Loop Detection
- ❖ Message Authentication
- ❖ Graceful Restart
- ❖ Inter-Area LSP

Specifications

- ❖ RFC 5036 – LDP Specification
- ❖ RFC3478 - Graceful Restart Mechanism for Label Distribution Protocol
- ❖ RFC5283 - LDP Extension for Inter-Area Label Switched Paths
- ❖ RFC 3815 – LDP MIB

LDP-MPLS test cases perform conformance testing for discovery, connection establishment, session management, maintenance of adjacency and label distribution for active and passive modes.

LDP-MPLS tests verify for the reception and transmission of LDP messages, authentication support, LDP timer negotiation loop detection and event generation.

LDP-MPLS tests also verify for LDP State Machine changes and handling of invalid LDP messages. Frame format checks are also handled by the test cases.

LDP-MPLS 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 suites for Carrier Ethernet OAM and bridging, Net-O₂ provides a wide range of solutions for conformance testing. Comprehensive test suites for Layer-2 bridging and IPv4/IPv6 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 for applications in Carrier Ethernet, Multi-service, Data Center, Enterprise, Industrial Networking and Network Security.

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