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Veryx ATTEST™ PIM-SMv6 Conformance Test Suite DATASHEET

Veryx ATTEST™-CTS Protocol Independent Multicast – Sparse Mode for IPv6 networks (PIM-SMv6) automated test suite provides Equipment Manufacturers and Service Providers an easy and efficient solution for verification of PIM Sparse mode implementation in Ethernet Switches and Routers deployable in IPv6 networks. ATTEST enables significant speeding-up of testing cycles and enhanced "time-to-market".

Veryx ATTEST PIM-SMv6 Conformance Test Suite is designed using ATTEST -- a powerful test framework that requires minimal time for set-up and enables efficient use of time and resources.

Veryx has devised over 269 test cases that comprehensively test for PIM-SMv6 conformance. These test cases have been grouped into 11 convenient test groups based on the IETF specification for each category of functions.

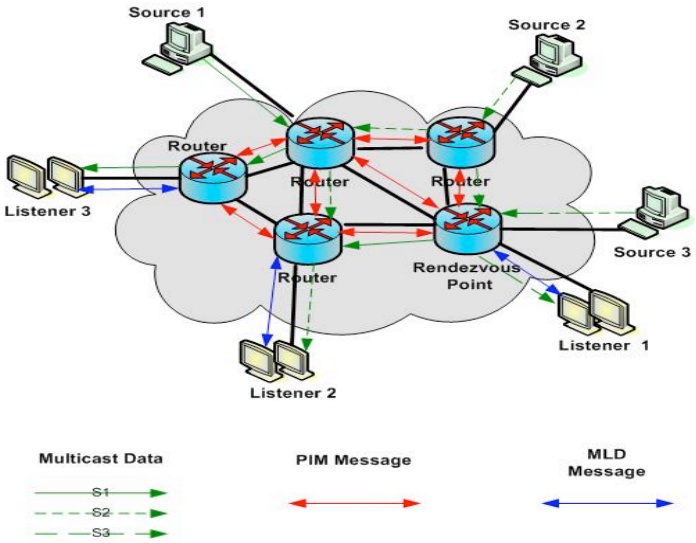

Figure 1. An example of a network supporting PIM-SMv6

SPECIFICATIONS

IETF RFC 4601
IETF RFC 5059

PIM-SMv6 TESTS

* Packet Format
* Finite State Machine
* Data Forwarding
* Join/Prune, Assert, Register
* Designated Router
* Neighbor Discovery
* Rendezvous Point
* Local Membership
* Boot Strap Router
* Source Specific Shortest Path Tree
* Source Specific Multicast

PLATFORM REQUIREMENTS

* ATTEST 6.x Framework
* 3 Ethernet ports
* Serial or additional Ethernet port for DUT management

ATTEST PIM-SMv6 test cases verify the PIM-SMv6 support for both Leaf/Edge router (device connected with MLD hosts and connected with other PIM routers) and Core router (device connected with other PIM routers) implementations.PIM-SMv6 test cases verify the generation and handling of valid and invalid Hello, Assert, Join, Prune PIM messages from neighboring PIMv6 Routers. It also verifies the handling of Bootstrap, Candidate-RP Advertisement, Register and Register stop messages. Test cases verify (S, G), (*,G) and (S,G,Rpt) upstream and downstream Finite state machine implementations. Tests also verify the functionality of ASSERT Winner/Loser, DR, RP and Boot strap router. Multicast data forwarding over shared trees and shortest path trees are verified. Multicast Listener interoperability is also verified for both MLDv1/v2 listeners.

ATTEST PIM-SMv6 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 ATTEST-CTS Multicast Test suites for IPv6 deployed networks such as PIM-DMv6, MLD-R, MLD-H, and IPv6, Veryx provides one of the most comprehensive solutions for Layer 3 conformance testing. Carrier Ethernet, Layer 3 IPv4 and Layer 2 test suites like STP, MSTP, RSTP and VLAN are also available.

About Veryx Technologies

Veryx Technologies (formerly Net-O_2 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".