

Agilent RouterTester
Powered by QA Robot Technology

IS-IS Conformance Test Suite

E7866A
Technical Datasheet



Agilent Technologies automated IS-IS conformance test suite provides realistic internet-scale routing simulation for fast and comprehensive verification of routing conformance to the industry's evolving IS-IS standards.



Agilent Technologies

Key Features

- **Comprehensive conformance testing to the IETFs evolving IS-IS standards**
- **Fully automated stimulus-and-response test suite**
- **Controllable debug level for detailed diagnostics**
- **Clear verdict assignment for each test case**
- **Customizable test scripts**

Product Overview

The Agilent Technologies' IS-IS Conformance Test Suite has been designed to verify, quickly and comprehensively, the conformance of network devices to the industry's evolving IS-IS standards.

It provides more than 190 automated test cases, covering all key aspects of IS-IS routing conformance. All test cases provide clear 'Pass' and 'Fail' verdicts. Flexible reporting and debugging features allows test engineers to identify the detailed course of errors.

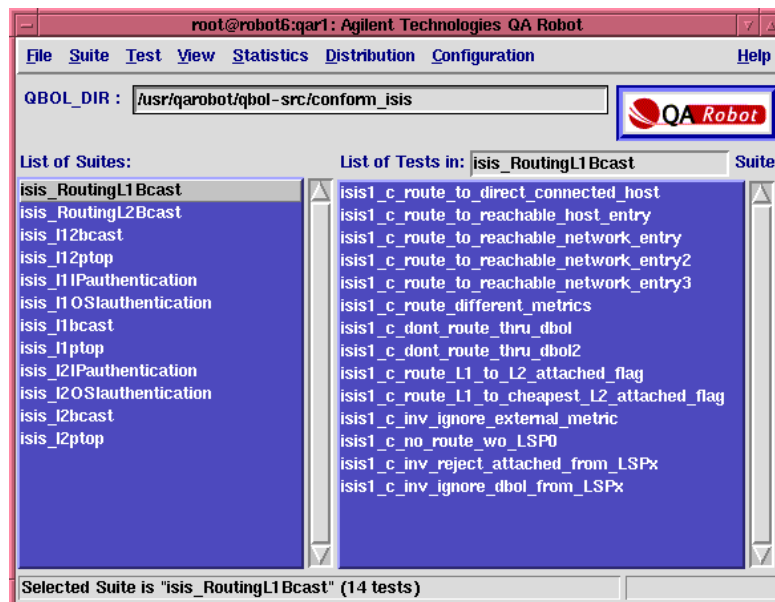
The conformance software provides test engineers with access to test script source code. This allows the suite to be rapidly customized for individual requirements.

Router manufacturers and service providers can expect to achieve a higher confidence with regard to their routing implementation with Agilent's automated IS-IS conformance test software.

The IS-IS Conformance Test suite is a complementary product to Agilent's IS-IS Protocol Software, which can simulate IS-IS routes at Internet-scale for comprehensive stress testing.

Applicable Standards

- The IS-IS Conformance Test Suite will provide verification of conformance to all key aspects of:
- SO/IEC 10589, June 16, 1998 Draft and Comment (Verified to ISO/IEC 10589, 1992)
- RFC 1195, Use of OSI IS-IS for Routing in TCP/IP and Dual Environments



Product Features

IS-IS Conformance Tests

The suite provides automatic conformance verification to evolving IS-IS routing protocol standards through more than 190 test cases. All key routing protocol behaviors can be verified including:

- Level 1 and Level 2 Broadcast Subnetworks
- Level 1-2 Broadcast Subnetworks
- Level 1 and Level 2 Point-to-Point Subnetworks
- Authentication
- Level 1 Routing
- Level 2 Routing

Test Methodology

Agilent's conformance suite directly reflects the IS-IS protocol specifications as detailed in:

- ISO/IEC 10589, June 16, 1998 Draft and Comment (Verified to ISO/IEC 10589, 1992)
- RFC 1195, Use of OSI IS-IS for Routing in TCP/IP and Dual Environments

Close alignment with these recommendations will ensure your routing implementations are in line with the evolving industry standards and maximize interoperability.

Diagnostics

Clear verdict assignments for each test case run (such as 'Pass'/'Fail') can help quickly identify implementation errors. More detailed diagnostics can be used to pinpoint the course of any 'Fail' indicators.

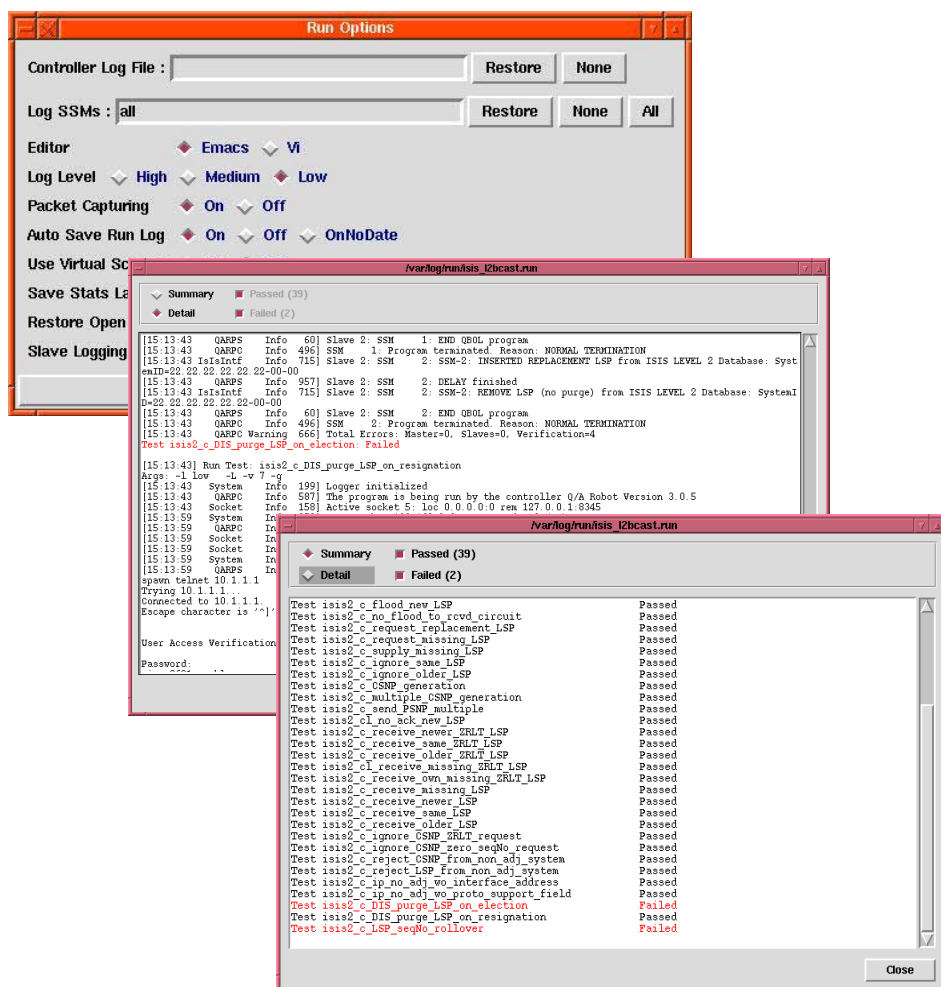
Agilent's flexible debug allows the level of diagnostics to be scaled up or down for more (or less) detailed analysis of test results.

It is possible to view the 'Pass'/'Fail' results from an entire test suite at a glance. Details of each test case can then be further analyzed to identify faults. Still, further detail can be analyzed at the routing protocol PDU level for both 'incoming' and 'outgoing' packets.

Test repeatability is achieved by saving test session setups and results. This allows quick regression testing of product enhancements and bug fixes.

Test Customization

All of Agilent's Conformance Test Suites provide users with open access to test scripts from all of the over 175 test cases. Test engineers can easily edit the scripts using the QBOL scripting language to create their own customized test cases.



Technical Specifications

Routing Protocol Behavior Tested	Applicable Standard
Broadcast Functionality	
Adjacency Establishment	ISO/IEC 10589
Adjacency Maintenance	ISO/IEC 10589
Adjacency Deletion	ISO/IEC 10589
IP Extensions for Adjacency Establishment	RFC 1195
Designated IS Election	ISO/IEC 10589
Designated IS Resignation	ISO/IEC 10589
IS-IS Update Process Integrity	ISO/IEC 10589
Level 1/2 Adjacency Independence	ISO/IEC 10589
IP Extensions Summary Address	RFC 1195
IP Extensions Summary Address Advertising	RFC 1195
IP Extensions Summary Address Suppression	RFC 1195
Attached Flag Management	ISO/IEC 10589
Point-to-Point Functionality	
Adjacency Stable Table Implementation	ISO/IEC 10589
Maintenance	
Establishment	
Deletion	
IS-IS Update Process Integrity	ISO/IEC 10589
Level 1/2 State Machine Independence	ISO/IEC 10589
Authentication - OSI,IP	
Link Authentication (IIH PDUs)	ISO/IEC 10589 : RFC 1195
Area Authentication (LSP, CSNP PDUs)	ISO/IEC 10589 : RFC 1195
Domain Authentication LSP, CSNP PDUs)	ISO/IEC 10589 : RFC 1195
Routing	
Level 1 and Level 2 Routing	ISO/IEC 10589 : RFC 1195
Inter and Intra Area	
Route Selection	ISO/IEC 10589 : RFC 1195
Matrix	
Database Overload	

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Agilent's RouterTester system

Agilent's RouterTester system offers a powerful and versatile test platform to address the evolving test needs of metro/edge platforms, core routers and optical switches. RouterTester provides Network Equipment Manufacturers and Service Providers with the industry's leading tools for wire speed, multiport traffic generation and performance analysis of today's networking devices.

Warranty and Support

Hardware Warranty

All RouterTester and QA Robot hardware is warranted against defects in materials and workmanship for a period of 3 years from the date of shipment.

Software Warranty

All RouterTester and QA Robot software is warranted for a period of 90 days. The applications are warranted to execute and install properly from the media provided. This warranty only covers physical defects in the media, whereby the media is replaced at no charge during the warranty period.

Software Updates

With the purchase of any new system controller Agilent will provide 1 year of complimentary software updates. At the end of the first year you can enroll into the Software Enhancement Service (SES) for continuing software product enhancements.

Support

Technical support is available throughout the support life of the product. Support is available to verify that the equipment works properly, to help with product operation, and to provide basic measurement assistance for the use of the specified capabilities, at no extra cost, upon request.

Ordering Information

To order and configure the test system consult your local Agilent field engineer.

United States:

Agilent Technologies
Test and Measurement Call Center
P.O. Box 4026
Englewood, CO 80155-4026
1-800-452-4844

Canada:

Agilent Technologies Canada Inc.
5150 Spectrum Way
Mississauga, Ontario
L4W 5G1
1-877-894-4414

Europe:

Agilent Technologies
European Marketing Organisation
P.O. Box 999
1180 AZ Amstelveen
The Netherlands
(31 20) 547-2323

United Kingdom
07004 666666

Japan:

Agilent Technologies Japan Ltd.
Measurement Assistance Center
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www.agilent.com/comms/RouterTester

