Agilent RouterTester

Powered by QA Robot Technology

OSPF Conformance Test Suite

E7863A

Technical Datasheet

Agilent Technologies automated OSPF conformance test suite provides realistic internet-scale routing simulation for comprehensive verification of routing conformance to the industries evolving OSPF standards.

Agilent Technologies

Key Features

- **Comprehensive conformance testing to the IETF's evolving OSPF 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' OSPF Conformance Test Suite has been designed to verify, quickly and comprehensively, the conformance of network devices to RFC 2328 and RFC 2370.

It provides more than 70 automated test cases, covering all key aspects of OSPF 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.

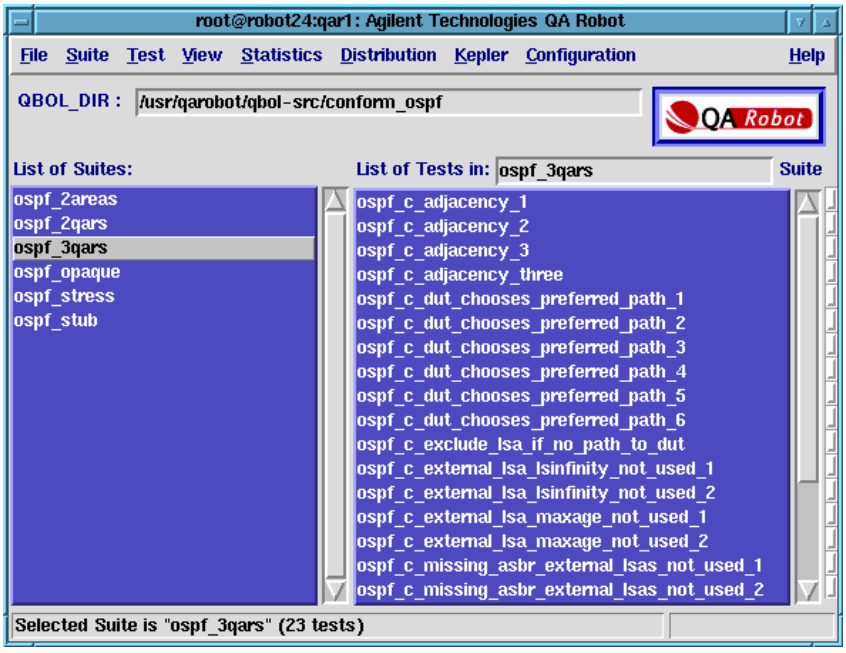
The conformance software provides test engineers with access to test script source code, for easy test customization.

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

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

Applicable Standards

The OSPF Conformance Test Suite will provide verification of conformance to all key aspects of RFC 2328 and RFC 2370.



Product Features

OSPF Conformance Tests

The suite provides automatic conformance verification to evolving OSPF routing protocol standards through more than 70 test cases. All common routing protocol behaviors can be verified in including:

- Adjacency Establishment
- Adjacency Maintenance
- Adjacency Deletion
- Designated Router Election
- Database Synchronization
- Preferred Path (or route) Hierarchical Routing
- Master/Slave during Database Exchange

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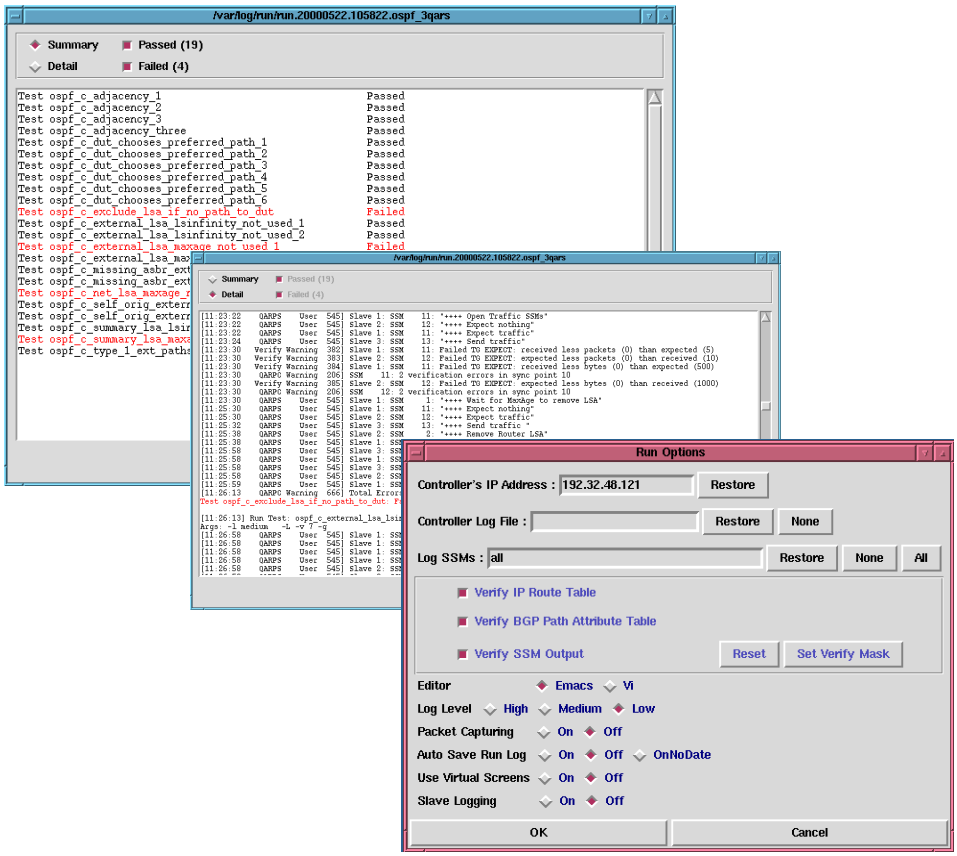

The level of diagnostics can be scaled up or down using the QA Robot's Run Options to provide more (or less) detailed analysis of test results.

Test Methodology

Agilent's conformance suite directly reflects the OSPF protocol specifications as detailed in RFC 2328 and RFC 2370

Close alignment with these recommendations will ensure your routing implementations conform to the evolving OSPF 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. Detail of each test case can then be further analyzed to identify faults. Still, further detail can be analyzed at the route 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 70 test cases. Test engineers can easily edit the scripts using the QBOL scripting language to create their own customized test cases.

Complete OSPF Solution

Agilent's OSPF Conformance Test Suite when combined with the Agilent's OSPF Protocol Software provides a fastest and most comprehensive verification of your OSPF implementation available.

Technical Specifications

Routing Protocol Behavior Tested	Evolving Standard
Adjacency Establishment	RFC 2328
Adjacency Maintenance	RFC 2328
Adjacency Deletion	RFC 2328
Designated Router Election	RFC 2328
Database Synchronization	RFC 2328
Preferred Path (or route) Hierarchical Routing	RFC 2328
Master/Slave during Database Exchange	RFC 2328
Interface and Neighbor states Verification	RFC 2328
Virtual links	RFC 2328
LSAs	
Type 1-5	
Router	RFC 2328
Network	RFC 2328
Summary3	RFC 2328
Summary4	RFC 2328
External	RFC 2328
Type 9-11	RFC 2328
Opaque	
	RFC 2370
Verification of LSA fields	
LS Options	RFC 2328
Link type	RFC 2328
Basic Metrics	RFC 2328
LS Type	RFC 2328
Link State ID	RFC 2328
Advertising Router	RFC 2328
Types of Routers	
Internal Routers	RFC 2328
Area Border Routers	RFC 2328
Backbone Routers	RFC 2328
AS Boundary Routers	RFC 2328
Network Types	
Point-to-point	RFC 2328
Broadcast	RFC 2328

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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
9-1, Takakura-Cho, Hachioji-Shi,
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www.agilent.com/comms/RouterTester

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