

# IP Test Solution for Network/Service Providers Agilent's RouterTester System

Agilent RouterTester helps Service Providers bring new network services to market more quickly. RouterTester covers the spectrum of Service Provider test needs with ease.

## RouterTester Applications

- ✓ Technology/Product Evaluation
- ✓ Baseline and Benchmarking
- ✓ Interoperability and Conformance
- ✓ Network/Service Trials
- ✓ Network Upgrade Regression Test
- ✓ Problem Resolution and Performance/QoS Tuning

RouterTester comprehensively tests IP networks and network devices, including core and edge routers, IP/ATM multi-service switches/routers, optical routers, remote access servers, DSLAMs, and enterprise LAN/WAN equipment.

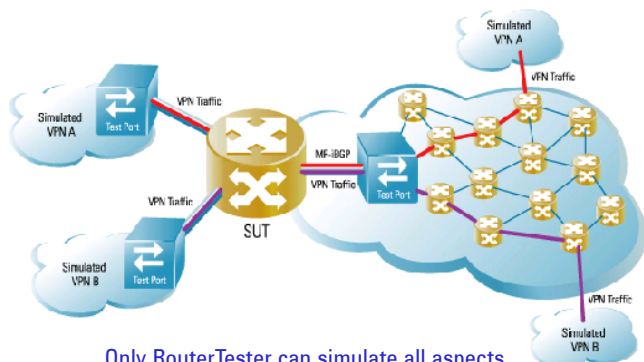
## How Do Service Providers Test New Services Before Deployment?

*With RouterTester's Integrated Traffic and Routing.*

Virtual Private Network (VPN) and VLAN services offer Service Providers new revenue opportunities. However, VPN services require a complex mix of signaling, routing, tunneling, and security protocols.

RouterTester emulates the spectrum of protocols required for testing MPLS layer 2 and 3 VPNs and IP VPNs, such as MP-iBGP, RSVP-TE, CR-LDP, OSPF, IS-IS, L2TP, and IPSec (IKE), and offers a comprehensive range of ATM, POS, and Ethernet interfaces.

Only RouterTester offers tight integration of traffic, routing, and MPLS. This enables injection of large and complex VPN network topologies, set-up of thousands of MPLS tunnels, and generation of wire-speed VPN traffic at the same time with ease.



Only RouterTester can simulate all aspects of large and complex VPN networks

## How Do Leading Manufacturers Test Their Routers?

*Using RouterTester Applications and Test Scripts.*

Multi-vendor networks help ensure a flexible upgrade path through selection of standards-compliant equipment. While manufacturers test their own routers, Service Providers need to configure and test their own unique networks and services.

RouterTester has the widest range of protocol software and conformance test suites available, allowing you to easily:

- Verify interoperability between vendors and legacy  equipment at every network software upgrade
- Tune performance to meet customer service requirements

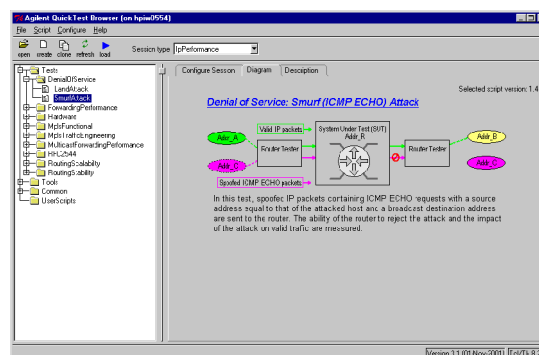
## Which Tools Help Prevent Costly Network Outages?

*Stability and Denial of Service QuickTests.*

Fiber cuts can stall a network for hours with routing update messages. To test vulnerability, RouterTester's Stability QuickTests inject large network topologies with thousands of dynamically changing routes and label-switched paths. Route convergence time and packet loss are measured easily.

Malicious attacks are the fear of Internet Service Providers. Denial of Service attacks exploit known weaknesses to target an IP network or host. RouterTester can easily simulate complex attacks such as Smurf (ICMP Echo), allowing network elements to be reconfigured to mitigate such attacks.

RouterTester can be used as a regression test tool during every network upgrade to help prevent customer service downtime.



QuickTests help find and correct network vulnerabilities, preventing service downtime



**Agilent Technologies**

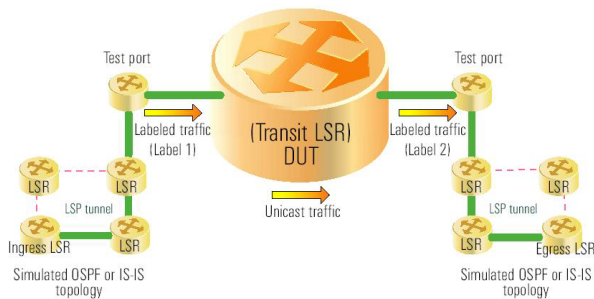
# Agilent RouterTester

## Our Test Expertise Brings You a Complete Solution to Make Your Job Easier

With RouterTester, it's easy to evaluate different routers and test new services and network upgrades before deployment.

### Step 1. Design Your Test Plan Using Our Journal

The Agilent Journal of Internet Test Methodologies is the most comprehensive compilation of test cases for IP routers, networks, and services. Save many man-months of effort by using our Journal as the basis for Test Plan development.

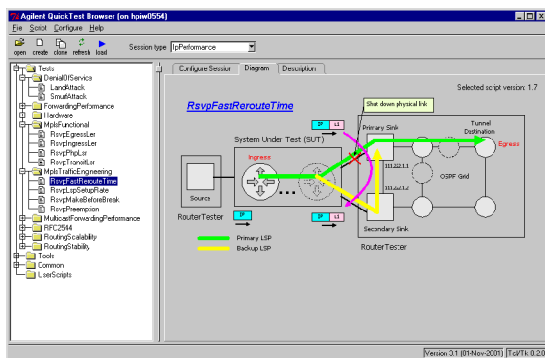


Test Case 7-6: MPLS Transit LSR Functionality

### Step 2. Select and Configure the Free QuickTests

The QuickTest library is a powerful toolkit of over 80 applications that automate common complex test scenarios, including most test cases in the Journal.

Expedite test cycles by configuring and tailoring the free QuickTests to your unique test environment and needs, or add your own QuickTests.



RSVP Fast Reroute Time QuickTest

### Step 3. Use RouterTester Applications for Your Unique Test Needs

- Intuitive user interface for testing performance and  functionality
- Powerful scripting interface for automation
- The widest range of conformance test suites and   protocol software available

#### Protocol Emulations:

- BGP-4, OSPF, IS-IS, RIP, MPLS RSVP-TE, CR-LDP, GMPLS,
- Optical UNI, L2TP, IPSec, MP-iBGP, PPPoA, PPPoE,
- IGMPv3, PIM-SM

#### Services:

- VLAN, VPN, Multicast

#### Traffic:

- IPv4, IPv6, MPLS

#### Decodes:

- Over 300 protocols

### Agilent RouterTester 900



For more information, please visit:

[www.agilent.com/comms/RouterTester](http://www.agilent.com/comms/RouterTester)

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