Agilent NetworkTester

The Most Powerful Layer 4-7 Real-World Performance and Stress Test Solution

Industry's Broadest Range of Supported Protocols

Over 20 application protocols for unprecedented test realism:

- **HTTP, HTTPS, FTP, SMTP, POP3, DNS, Telnet, RTSP, RTP, IGMP, Transport Stream, SIP, H.323, MGCP, SNMP, NFS, CIFS, ICMP, Traceroute, NNTP, DHCP, Jabber**

Integrated network access protocols:

- **IPSec VPN, PPPoE, DHCP, 802.1x, VLANs**

DoS attacks, network exploits, virus and worm simulations for validating security and stress resilience

Network Tester is the most powerful and flexible solution for testing the real-world performance of network security, Triple Play and application-aware devices.

Network Equipment Manufacturers, Service Providers and Network Operators can use Network Tester to analyze application-aware devices to obtain real-world performance characteristics under peak levels of load and stress, as expected in real network environments. This allows test engineers to confidently assess equipment's ability to perform without disrupting service or compromising quality of user experience.

Network Tester achieves unparalleled testing realism by using real Internet Data, VoIP, VoD and IPTV traffic in realistic protocol and transaction distributions. Combined with DoS attacks, malicious exploits and traffic impairments this subjects the devices to complex traffic conditions indistinguishable from real-world network environments. In addition, Network Tester is able to simulate proprietary protocols such as Peer-to-Peer, IM and On-line Gaming, making it the most comprehensive Layer 4-7 performance and stress resilience testing system on the market.

Network Tester accelerates the development and deployment of network security, Triple Play and other application-aware devices by:

- Generating real-world mixes of Internet Data, VoIP, Streaming Video, IPTV and P2P traffic on the same test interface
- Simultaneously emulating multiple Denial of Service, worm, virus and spam attacks to measure it's impact on legitimate traffic performance
- Generating real-world stateful traffic over integrated IPSec, IPSecv6, PPPoE, DHCP, 802.1x and VLANs
- Scaling traffic up to emulate tens of thousands of real clients and servers to measure device capacity, scalability and performance under load
- Reporting realtime and granular QoE statistics, including MOS and MDI for Triple Play services and providing accurate, holistic insight into the device application layer performance

The Agilent Network Tester Layer 4-7 Solution

Agilent Technologies

Create Complex Realistic Test Scenarios in Minutes!

Network Tester's powerful GUI allows users to create and execute complex real-world test scenarios literally within minutes. Simply drag and stack configurable Protocol Bricks to create multi-protocol traffic profiles combined with malicious attacks without any need for scripting. Key features like the String Editor and Named Attributes permits randomization of parameters such as URLs, spam subject lines, and e-mail file attachments. Network Tester's Transaction Variability feature enables users to change parameters on the fly, without stopping the test. Combined, these features enable extremely complex real-world scenarios to be setup and executed quickly and easily.

Real-World Application Traffic Mixing

Network Tester provides seamless integration of application data, voice, and video protocols with DoS attacks and other malicious exploits such as worm and virus infected traffic payload. Powerful protocol and transaction mixing capabilities allow for creation of multi-protocol weighted traffic profiles that closely emulate real-world network environments. This provides for a test solution that thoroughly stresses all application-aware device's protocol specific processing features and options.

Network Tester's broad range of industry supported protocol includes Internet data, VoIP, VoD and IPTV protocols and is complemented with sophisticated Capture/Replay feature for simulating proprietary applications such as Peer-to-Peer, File Sharing or On-line Gaming. VLAN support and access protocols such as IPSec, PPPoE, DHCP and 802.1x are also available with full IPv6 capability.

Geographically distributed E2E tests

Network Tester comprehensive end-to-end (E2E) test capability allows to validate real-world performance and scalability of distributed network infrastructures, ensure seamless device interoperability and guarantee network and service resilience to stress and malicious attacks.

Real transactions of any or all of over 20 applications protocols supported by Network Tester can be generated between the remote locations to simulate real-world traffic over complete network infrastructure. Over 150 network performance and QoE stats can be collected and analyzed in real time providing holistic picture of distributed network system performance, robustness and scalability.

Realtime Triple Play QoE analysis

Network Tester for the first time in industry combines real-world application traffic generation with comprehensive passive analysis features. Network Tester uses integrated Agilent Triple Play Analyzer, state of the art protocol and QoE analysis tool to monitor test traffic and provide realtime insight into all aspects of VoIP, VoD, IPTV and data services performance and quality, all from the end user perspective.

Triple Play Analyzer, running on Network Tester controller, calculates and tracks voice and video MOS and MDI scores in realtime on per call and per stream basis as well as performs deep packet and protocol analysis. This also includes unique ability to decode, view and listen to any voice and video stream in test traffic in realtime for instant service quality assessment.

Measure Internet-Scale Performance in the Lab

With Network Tester, users can simulate thousands of clients and servers to easily stress a device to its limits. Generate and measure hundreds of thousands of transactions per second or millions of user sessions – all from a single test application.

Network Tester is ideal for lab environments that need to validate the real-world performance limits of application-aware devices including firewalls, service-aware routers, session controllers, and content servers. With the ability to surround devices with real voice, video and data traffic with IPsec encryption and multiple DoS attacks, Network Tester provides the most realistic test environment to uncover problems before your customers do.

For more information, please visit:
www.agilent.com/find/networktester

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