



diversifEye™ 5500

10GbE Performance Chassis

Shenick's diversifEye 5500 is an integrated emulation, test and performance analysis solution for next generation network architectures and applications. The key benefit of Shenick's diversifEye 5500 solution is the ability to emulate large volumes of fully stateful traffic flows and produce in real time analysis on a per flow basis.

Testing highly scalable and converged networks is a complex challenge. diversifEye's per-flow test architecture simplifies this challenge, enabling Service Providers and Equipment Vendors to concentrate on delivering the most efficient, advanced service or solution offerings. diversifEye not only simplifies the challenge of testing at this scale but provides real time Quality of Experience performance metrics on each and every individual application, on each and every emulated end-point.



A single diversifEye 5500 chassis holds
3 x 10Gig test blades or 6 x 10GbE ports.

Sample diversifEye 5500 user cases

Telepresence -

diversifEye tests the video delivery quality and switching capabilities of a Telepresence architecture by measuring Video and Audio performance for each and every conference participant. The benefit guarantees a reliable video conference experience for a Telepresence deployment by testing the combined operation and performance of the call management systems, network and access QoS by emulating a range of conference scenarios from simple interoperability to large-scale long-duration video conferences.

Secure Media -

diversifEye is used to emulate many application endpoints including real IP Phones running TLS sessions through a Call Manager/firewall and sending RTP using SRTP. diversifEye emulates many individual unique endpoints and measures in real time per MAC, DHCP v4/v6 session establishment, individual TFTP registration with Call Manager, individual parsing of TFTP information per emulated VoIP endpoint model, SIP/TLS session, RTP/SRTP session with Call Manager.



Shenick is the only test vendor today offering stateful traffic emulation with real user activity. The diversifEye 5500 solution can create hundreds of thousands of SIP call requests per second!

The Per flow architecture offers unprecedented granularity in test configurations and provides a microscopic view, offering in-depth performance analysis on each and every emulated individual end point's quality of experience and on a per application basis.

For a successful service or network deployment, it's important that each end-point participates with no problems and furthermore each flow associated with the end-point experiences minimum quality issues.

diversifEye is the only end-point and application emulation and performance measurement tool available with the granularity required to measure the quality on each and every emulated end-point and application flow. diversifEye is a network, application and security attack emulation and performance analysis test system providing real-time measurements, with real world scenarios.

The Shenick diversifEye platform & GUI supports per flow test and measurement of :

Analysis Software Overview

- Telepresence (TIP)
- Multicast Video (IGMPv1,2,3 & MLDv1,2)
- VoIP (SIP & RTP)
- VoD (RTSP, SIP enabled RTSP, HTTP enabled RTSP)
- Voice and Video Quality Metrics
- Web (HTTP ver 0.9, 1.0, 1.1 - GET & POST)
- Email (SMTP/POP3 incl. attachments)
- FTP (Passive & Active)
- Concurrent IPv4 and IPv6 application flows
- IPv6 Transition test (Dual-Stack Lite, 6rd, 6to4)
- Secure flows (SSL- HTTPS, SRTP)
- P2P, P2P replay
- TWAMP
- DHCPv4 & DHCPv6
- PPPoE
- VLAN & Double Tagging (Q-in-Q) with priority
- Attack Traffic - Spam / Viruses / DDOS
- PCAP file replay (>1Gb)

Sample diversifEye Usage Scenarios

- Scalability testing:
Emulate tens of thousands of unique end-points connecting and requesting real IP video, VoIP, data applications along with other stateful traffic activities from a single test system. Evaluate aggregation and transport nodes, test capability of DUT to handle tens of thousands of connection requests.
- High performance device tests - DPI/DLP/firewalls/IPS/IDS security attack mitigation :
Understand the limitations that large traffic volumes of attack and SPAM traffic coupled with regular application flows place on performance of devices. Use diversifEye's granularity to test false positive/negatives by identifying when the system has incorrectly identified a flow. Out of the thousands of emails, upload, download requests can the one illegal file be spotted?
- NGN Core Performance testing:
Assess the capabilities of next generation networks to prioritize QoS and delay sensitive applications such as video and voice.

diversifEye Key Features And Benefits

- Network QoS and per flow QoE granularity for individual emulated end-points and applications. Per-flow analysis on all the signaling and unique media flows.
- Latest protocols supported - Data Applications (HTTP, FTP, POP/SMTP, P2P), IPTV (IGMP/MLD), VoD (RTSP) and VoIP (SIP/RTP), TIP (Telepresence Interoperability Protocol).
- TCP Replay Substitution automatically varies payloads so no two PCAP sessions are the same.
- Support for email attachments and web upload attachments.
- DHCP server emulation, PPPoE and IPoE Service Interoperability Scenarios. Emulate per device MAC and IP address assignments.
- Security Attack Mitigation support for DDos style attacks SYN/RST/UDP/ARP floods, reflective DDos attacks, Ping of death, etc.
- Instant Messaging or Web Mail, Large memory space (>1Gb) for PCAP replay
- Client and server support on a single blade within one chassis with complete flexibility on port allocation. Full support for multiple daisy chained chassis all controlled from a single GUI.
- Ease of use by avoiding multiple test systems and non integrated software applications.

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