



Triple Play
IPTV



Security



VoIP



IMS



P2P
Traffic Shaping



Application
Server



diversifEyeTM
Converged IP Network Test Systems



Shenick is an award winning provider of converged IP communications test systems. Shenick diversifEye™ offers network equipment manufacturers, service providers, large enterprises and governments a highly flexible and scalable emulation platform to assess performance, quality of service (QoS) and quality of experience (QoE), all within a single test platform.



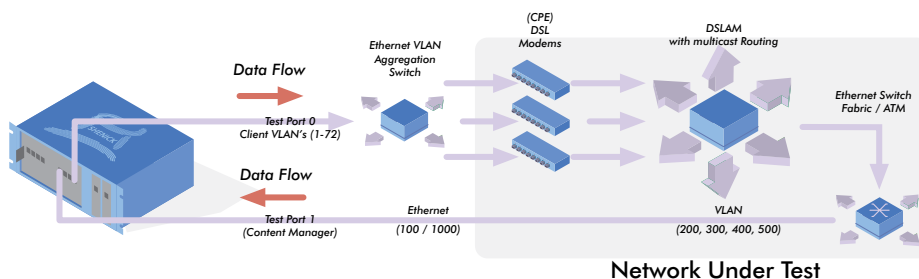
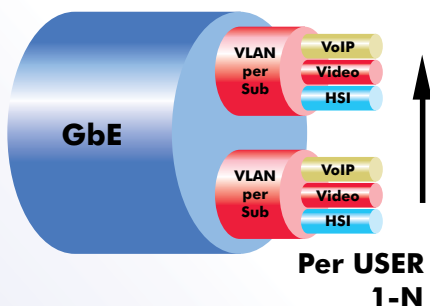
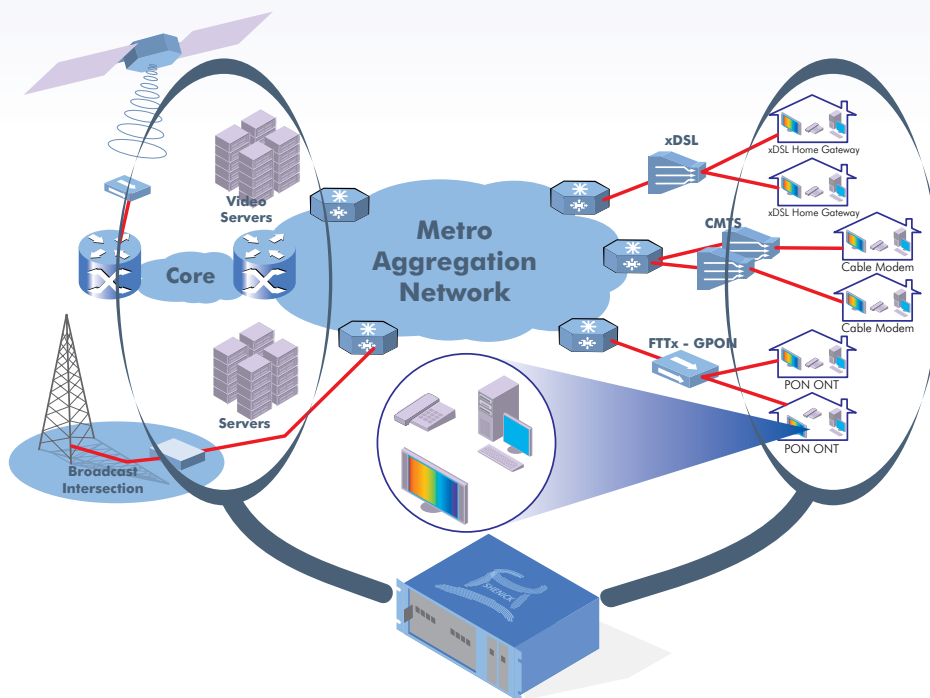
REALITY CHECKED

Due to the deployment of applications such as IPTV and VoIP, end user quality concerns have become a major issue. Today's IP based services customer has zero tolerance to quality issues. Therefore, quality and performance are key attributes to ensuring successful deployment. Shenick diversifEye™ offers the first truly integrated converged IP network test system to determine performance and quality limitations under the most realistic operational conditions.

INDIVIDUAL EXPERIENCE

Key to the power of diversifEye™ is its per flow architecture that permits active traffic emulation and QoS/QoE analysis on a per subscriber basis. Applications include IPTV, Video On Demand (VoD), VoIP and high speed internet applications such as web and P2P. diversifEye™ provides visibility on quality issues right down to the individual user's application flow. In addition, diversifEye™ can act as server side emulator too, offering complete virtualization of multiple head-end multi-channel, multicasted video, VoIP and typical application servers such as web and email.

Sample Converged Triple Play Network Infrastructure



Sample diversifEye™ Configuration



TRIPLE PLAY TYPICAL TEST SCENARIO

A typical access network scenario can consist of multiple nodes such as DSLAM, GPON, CMTS and/or aggregation devices such as edge routers and accompanying remote access servers. Behind each residential gateway connected to these access nodes, there exists multiple individual applications such as IPTV set top boxes, VoIP phones and PCs. diversifEye™ offers the ability to emulate each individual application to create the most realistic test environment for determination of performance limitations and quality of individual experience.

Additional Application Highlights



Triple Play IPTV

Determine multicast IPTV channel change rates, real time streaming performance for Video On Demand, both stand alone and in the presence of VoIP and Data Applications. Conduct video quality analysis both in real time passive mode Video Quality Score (VQS) and full reference active Perceptual Evaluation of Video Quality (PEVQ).



Security

Determine limitations under normal operation and/or attack conditions. Generate regular (typical IP application mix of HTTP, FTP, VoIP, email, streaming, multicast video, P2P) and attack traffic (DDoS, Virus, Worms, Spam) concurrently to determine QoE performance effecting overhead and attack throughput.



VoIP

Emulate real SIP/RTP calls with both client side (UAC) and server support (UAS). Determine loss, delay and jitter along with mean opinion score MOS (active PESQ and passive R Factor).



IMS

Emulate SIP based access scenarios and data over mobile applications. Emulate multiple IP services and application across a variety of network access points (xDSL, CMTS, FTTx, etc.)



P2P Traffic Shaping

Test traffic shaping, policing and management devices with high performance per application flow emulation. Determine cause and effect of P2P traffic on sensitive IPTV and VoIP applications.

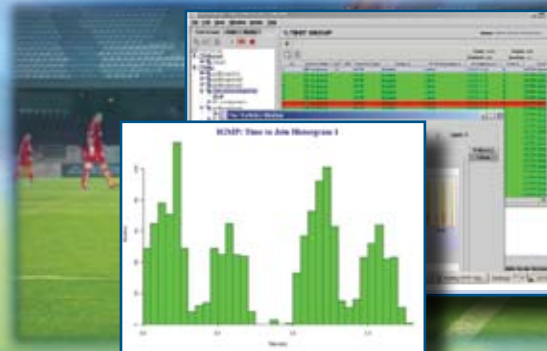


Application Server

Emulate and conduct analysis of QoS and QoE for millions of 'internet users in a box'. Determine performance bottlenecks and quality of experience. Concurrently generate mixed application flows such as HTTP, FTP, SMTP, Streaming, Multicast etc. Performance test individual application servers.

diversifEye™ System Overview

diversifEye™ consists of a fully integrated, highly scalable hardware and software platform. Client installation takes just minutes and a typical user can begin configuring and running tests in less than an hour. diversifEye™ is shipped with a complete range of software modules and sample test cases covering all application scenarios. The diversifEye™ GUI client is noteworthy for its ease of use while offering full automation and batch testing functions through the diversifEye™ Job function or scripting interface. diversifEye™ allows users to easily generate fully automated reports and statistics, offering both real time and offline processing of results both during testing and post analysis. Users have the ability to generate reports in a number of formats in both graphical and tabular formats.



Key Benefits

- Truly integrated converged IP network and application test system.
- Both QoS and quality of experience (QoE) test with per-flow emulation and analysis.
- Full RFC compliant TCP stack offering real, stateful IP Application traffic emulation.
- Highly flexible port assignment in both client only, client and server or server only modes of operation.
- Reduced number of ports required for testing, a single port can emulate thousands of end-user clients and applications each with their own IP and MAC addresses.
- Scalability through daisy chained chassis controlled via a single GUI interface.
- Low Cost of Ownership and ease of use by eliminating multiple test systems and non integrated software platforms for results correlation.

diversifEye™ offers both a portable and scalable platform through its 4200 and 8400 chassis options. diversifEye™ offers a highly flexible and scalable test system by daisy chaining multiple 8400 chassis which are all controlled through one GUI interface from a single Master Controller. Control can also be split into individually controlled units on separate master controllers.

diversifEye™

Available in two chassis types, both chassis are 19" rack mountable



8400

- 1 x Master Controller Card
- 1 x Ethernet Client Interface
- 1 x LCD Status Display
- 1 x Dual Power Supply & Fan
- Up to 6 x Test Port Modules



4200

- 1 x Master Controller Card
- 1 x Ethernet Client Interface
- 1 x LCD Status Display
- 1 x Single Power Supply
- 1 x Test Port Module

Test Port Modules

diversifEye™ interface cards



Interface Cards

- 4 port 10/100 Copper
- 2 port GbE (SX, LX Fibre, Copper SFP's)
- 2 port GbE (10/100/1000 Fixed Copper)
- 2 port Copper/Optical GbE wire speed

Software Overview

The diversifEye™ standard software package provides users with a set of libraries and sample test cases that are interoperable on both the 8400 and 4200 chassis. The diversifEye™ software suite offers full layer 2-7 testing application layer test options. Applications are both IPv4 and IPv6 enabled.

- Multicast IPTV test supporting IGMP & MLDv1,2
- Video On Demand (RTSP)
- Voice over IP (SIP/RTP)
- Optional Voice and Video Media Analysis (both passive R Factor & VQS and active PEVQ/PESQ)
- HTTP (Client and/or Server Emulation)
- SMTP & POP3 (Server & Client Emulation)
- P2P (peer to peer)
- DHCP
- Service Layer PPPoE and VLAN (incl. double tagged)
- Security Attacks with DDoS (SYN/RST/UDP/ARP floods) and Virus/Worm Attacks
- FTP (passive and active)

The above is a sample of the hardware and software available, for further information on the latest software and hardware options, please contact Shenick directly or through one of our authorised resellers. Shenick offers a complete range of services to its customers including support and on/offsite training courses.

About Shenick

Shenick is an award winning provider of IP communications test and measurement systems. Established in 2000 with offices in San Francisco, Atlanta, New Jersey, Ireland, UK, Germany and Singapore, Shenick has deployed its diversifEye™ integrated network, application and security attack emulation and performance assurance test systems throughout North America, Europe and Asia. Major IP-oriented network service providers, communications equipment manufacturers, large enterprise and governments rely on Shenick's diversifEye™ to assess their network, application and security infrastructure performance limitations. Shenick was the proud recipient of the 2006 Frost and Sullivan Emerging Company of the Year Award in the Communications Test and Measurement industry sector along with the 2005 European Product Line Strategy Award.



North America | 533 Airport Boulevard, Burlingame, CA 94010, USA

Tel: +1-650-288-0511

Fax: +1-650-745-2641

Europe | Brook House, Corrig Avenue, Dun Laoghaire, Dublin, Ireland.

Tel: +353-1-236-7002

Fax: +353-1-236-7020

web: www.shenick.com

email: info@shenick.com

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