

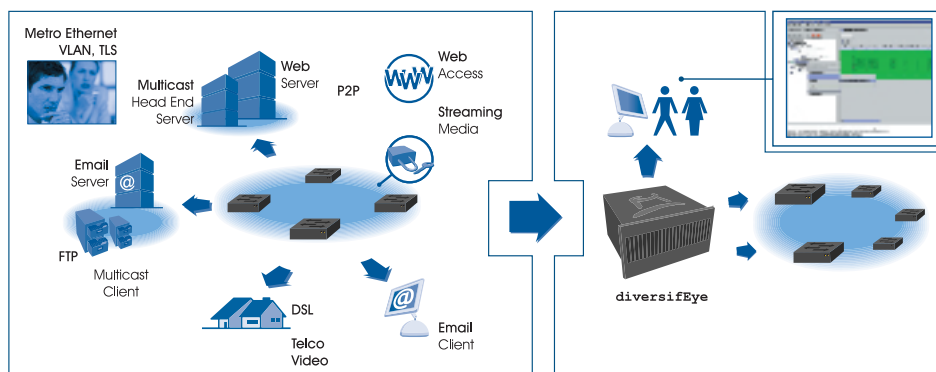


diversifEye™ 4200

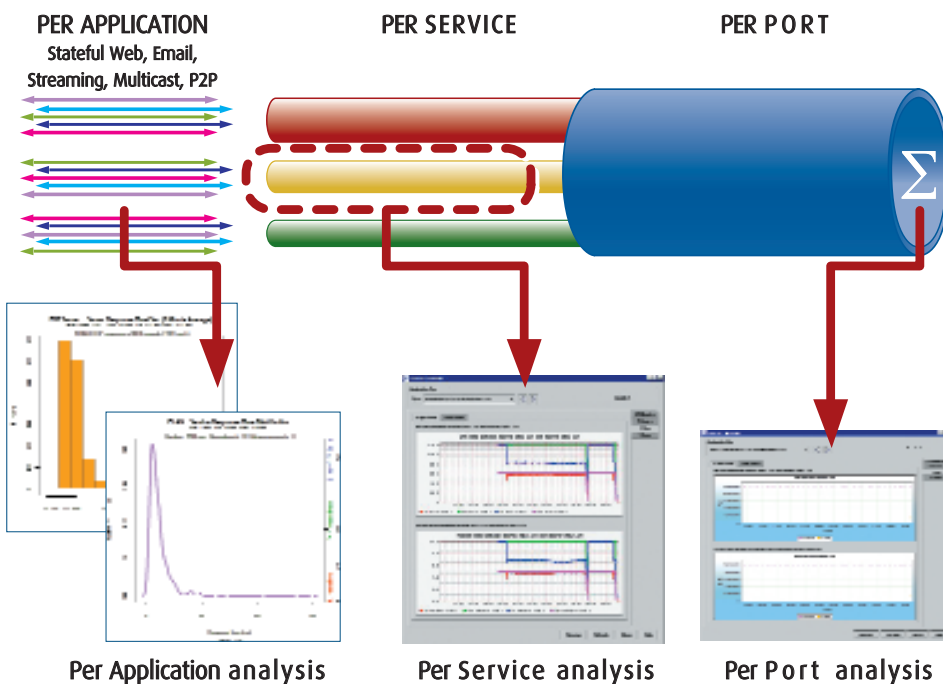
With the increasing rollout of "business class broadband" network services and the introduction of delay sensitive IP based applications, a key challenge is how to adopt a rigorous test approach that involves everything from layer-2 network service integrity to the performance assurance of individual customer applications that are using the network service.

The Shenick diversifEye™ 4200 is a unique test platform offering full Layer 2-7 integrated network & application emulation for true **customer QoS experience testing**. Per network service and per application flow emulation and quality analysis can now be easily determined using one integrated and portable test system.

Emulate multiple mixed applications over individual network services



From each application flow to per-service and port performance, test it all with diversifEye™.



Sample Applications

- Metro Ethernet pre turn-up and daily operational QoS assurance
- End to end IP services/flows QoS test for equipment vendors and operators
 - Ethernet over SDH/SONET/MSPP
 - RPR, EoMPLS, DSL
- Delay sensitive/quality of flow dependent application testing
- Email/Web/Multicast/Streaming/P2P server and client emulation, performance analysis and collapsed topology testing

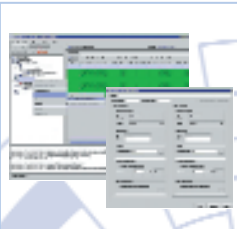
Key Benefits

- Increase confidence in offering differentiated network services and applications with end-to-end bi-directional, per-service, per-flow carrier grade QoS test
- Full test automation with real-time and long run performance analysis of each service/flow
- Application client and/or server emulation for Multicast, Web, Email
- Reduced OPEX and increased test productivity with remote control of network equipment under test
- Seamless integration with existing test environments and third party test equipment
- Low cost of ownership and ease of use by avoiding multiple test systems and non integrated software applications



Avoid multiple test systems and software tools with one integrated test platform.

Powerful, yet easy to use software for configuration, emulation, batch automation, statistical analysis, reporting and third party interface support. Client installation takes just minutes.



Per Layer 2 VLAN (E-LINE, E-LAN), TLS Service, Per IP Application Flow configuration, emulation and QoS Performance analysis

- Emulate hundreds of thousands of individual or bulk virtual customer IP flows
- Model diverse application flows within any number of IP subsystems and assign to a layer-2 service
- Create statistically distributed layer 2 packet Services and IP application flow profiles
- Emulate and analyze true end to end bi-directional layer 2 services and stateful application flows.



Eliminate the need for hundreds of test client PC's and Servers. Emulate real Applications in client and/or server modes.

- Use **HTTP** client mode to test real WEB, Proxy, Cache Servers, Load Balancers, Denial of Service Defence mechanisms OR use in both client AND emulated WEB Server mode for underlying network performance test.
- **SMTP/POP3** emulation with complete control over mail content. Support for file attachments and email traffic profiles. Use for testing email server, firewall, email virus filter test or as part of a mixed application flows scenario.
- **IGMP** Multicast emulation for per client QoS test with applications such as IP TV, VoDSL. Configurable join, leave and duration to emulate TV channel changing.
- **STREAMING** server and client model emulation. Detect out of spec conditions on a per client basis.
- **Peer to Peer (P2P) application** emulation. Determine the effects of peer to peer application traffic on network quality of service and also the effect on Delay sensitive applications by effectively modeling peering sessions.

Reduce OPEX and increase test productivity with remote control of network under test.

diversifEye offers a unique 'push-pull', interface that provides remote provisioning control of equipment under test using CLI/NMS interface capabilities. Also, disruptive network behavior can be introduced in a controlled fashion.

Full automation and batch testing functions

Multiple users can easily establish their own batch testing profiles to run any number of configured test tasks using the diversifEye JOB function. All results are easily exported and summary reports can be automatically generated.

Choice of user interfaces

diversifEye offers a choice of Java(tm) GUI, TCL scripting, XML, Jython interfaces. A complete set of example scripts are included to cover all functions available on the graphical interface.

Software Specification

NETWORK SERVICE LAYER 2

- Per layer 2 service configuration, emulation and QoS analysis
- Create traffic profiles with fixed, random, programmable statistical packet distributions
- E-Line, E-LAN, TLS with IEEE 802.1 P, Q, Q-in-Q Tunnel VLAN,
- Ethernet auto negotiation. VLAN-Ethernet interworking.
- MAC address auto generate, spanning tree exercise

TCP/IP/UDP & APPLICATION LAYERS 3-7

- Per application flow configuration, emulation and analysis
- IP-Subsystem emulation with RIP advertise and IP diffServ (ToS) support. Assign application flows per subsystem
- Configurable TCP stack parameters
- **IGMP** Multicast Head End Server and Client QoS assurance with per client join, leave, duration and performance analysis
- Full **SMTP** Server and/or Client, **POP3** server/client emulation, manual, auto generate messages and support for attachments
- **HTTP V 0.9/1.0/1.1** Server and/or Client emulation, WEB Proxy server
- **Peer to Peer (P2P) Application** Emulation
- **Streaming Server and Client** emulation and performance analysis
- **IPv6 support coming soon!**

USER INTERFACE, SCRIPTING, AUTOMATION AND REPORTING

- Java™, Script (TCL), Jython User Interface with sample scripts and UI configurations supplied. XML test group, test tasks import/export function
- JOB function for automated batch testing allowing any number of pre-configured scheduled test tasks
- 'Push-Pull' interface for remote control provisioning of devices under test using script, CLI, EMS/NMS, XML, CORBA, SNMP
- Graphical and tabular performance statistics in real time or long run mode over hours, days, weeks
- Statistics data collection on a per port, per service, per flow basis. CSV file generation and full statistics package for processing into summary reports

Hardware Specification

- IEEE 802.3 10/100, Gigabit Ethernet (1000 Base-T, SX, LX) test port module options.
- Integrated server controller for configuration, monitoring and data collection with integrated high capacity hard disk drive.
- Standard 19" rack mountable 2U height chassis.
- Ethernet network connection for local or remote client interface and multiple chassis interconnect. Remote access IP address.
- On board LCD status panel
- Field replaceable test port modules
- FCC/CE standards compliant

METRO Ethernet Forum **MEMBER**

For further information regarding diversifEye™ please visit our website at: www.shenick.com email: info@shenick.com or contact us directly at one of the following locations:

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