OVERVIEW

Network engineers manage complex and constantly changing networks. These networks carry business-critical services and applications, and are required to deliver high-performance while maintaining no downtime. Riverbed provides a complementary set of solutions to meet network management challenges faced by IT organizations. Riverbed OPNET NetOne comprehensive solution suite:

» Supports full life-cycle coverage, including real-time monitoring and visualization, network configuration assurance, predictive planning, network design and optimization.

» Leverages Riverbed best-in-class analytics applied to an accurate, up-to-date view of the network.

» Unifies network management to eliminate the challenge of correlating across point tools.

» Seamlessly integrates with Riverbed Performance Management solutions to bring application and service awareness into network management.

Benefits

• Rapidly troubleshoot critical application and network issues using real-time infrastructure visualization and monitoring.

• Maintain up-to-date network inventory and diagrams.

• Increase security and operational integrity with scheduled audits to pinpoint problems.

• Ensure compliance with security and regulatory standards, organizational policies, and best practices.

• Reduce the risk of downtime due to network failures and mis-configurations by performing survivability analysis and proactive change impact analysis.

• Accelerate new service and technology deployments using predictive planning.

• Optimize network performance by performing capacity planning, network dimensioning, traffic engineering, and what-if analyses.
**Capabilities**

**Automated Network Discovery**
- Discover devices and their configuration throughout the IT infrastructure.
- Continuous discovery captures all network changes.
- Capture comprehensive network data including configuration, topology, performance metrics, traffic flows, and events, via CLI and SNMP.
- Create high definition network model by correlating configuration and operational data to highlight multi-device relationships (e.g., HSRP, OSPF areas).

**Real-Time Visualization and Monitoring**
- Visualize real-time network topology, traffic, status, and events in a unified view.
- Consolidate data from multiple sources, including SNMP, syslog, and third-party management systems.
- Monitor key performance indicators within configurable dashboards.
- Alert on critical network events through e-mails, pager notification, and trouble ticket integration.

**TESTIMONIALS**

“OPNET nCompass uniquely overlays network utilization, events, and alarm status on real-time operational dashboards. It provides us with an invaluable tool for quickly assessing the impact of performance problems, and for speeding their resolution.”

Network Engineer, US Network Service Provider

“OPNET was selected to add value by allowing us to optimize network performance, including right-sizing links, minimizing mistakes in router configurations and even pointing out inefficient configurations. We have already experienced the benefit of using OPNET software through the reduced number of customer trouble tickets.”

Senior Consultant, Global IT Services Management Organization
Auditing, Compliance, and Security

• Comply with security and regulatory standards (including PCI-DSS, SOX, HIPAA, and FISMA), organizational policies, and best practices.

• Detect changes in network topology, configuration, and performance and assess the resulting impact.

• Audit the production network configuration on a regular basis to detect configuration errors, non-compliance, and security gaps.

Periodically audit against security standards like PCI-DSS Standard.

Network Documentation

• Diagram the physical and logical network based on a detailed, comprehensive, and up-to-date network model.

• Document network inventory and configuration (e.g., device, OS, key protocols).

• Troubleshoot using detailed physical and logical diagrams. Diagrams leverage operational data (e.g., Spanning Tree) to highlight protocol configuration errors.


OSPF Inter-Area and Intra-Area diagram, with drill-down to process and interface configuration.
Network Planning and Design

- Plan capacity expansion based on growth trends and deployment of new services and technologies.
- Verify proposed designs by predicting impact on performance, utilization, and survivability.
- Optimize performance and the use of existing network resources through traffic engineering and QoS policies.
- Improve reliability and minimize the impact of failures.
- Analyze and troubleshoot complex routing behavior using the high definition Flow Analysis™ simulation engine to model a broad set of layer-2/3 protocols.

For Service Providers

OPNET NetOne software provides the following additional capabilities for service providers and large enterprises.

- Automatically produce detailed logical and virtualization views for technologies and configurations common in service provider networks, including IS-IS, MPLS, BGP, HSRP/VRRP, and VPNS/VRFs.
- Perform automated off-line MPLS traffic engineering, leveraging exclusive Riverbed algorithms that optimize resource utilization and ensure service survivability.
- Optimize BGP peering relationships and determine the impact of core failures, peering failures, and peering changes on inter-AS traffic.
- Conduct multi-layer survivability analysis by predicting the impact of failing nodes, links, and shared risk groups in the supporting transport network on the higher layer network and services.
- Perform multi-layer planning, analysis, and design for IP/MPLS over transport networks.
- Design resilient, cost-effective SONET/SDH, OTN, and DWDM transport networks.
- Ensure successful migration to IPv6 by performing an automated IPv6 readiness assessment and generating a migration

Carriers, ISPs, cable operators, and wireless service providers achieve significant return on investment by using OPNET NetOne software to:

- Accelerate new strategic offerings.
- Optimize the use of existing network resources.
- Ensure service levels.
- Improve subscriber satisfaction.
- Manage operational risks associated with network convergence and technology migration.

Gain visibility into network resource usage for effective capacity management.
About Riverbed
Riverbed delivers performance for the globally connected enterprise. With Riverbed, enterprises can successfully and intelligently implement strategic initiatives such as virtualization, consolidation, cloud computing, and disaster recovery without fear of compromising performance. By giving enterprises the platform they need to understand, optimize and consolidate their IT, Riverbed helps enterprises to build a fast, fluid and dynamic IT architecture that aligns with the business needs of the organization.
Additional information about Riverbed (NASDAQ: RVBD) is available at www.riverbed.com.

Riverbed®OPNET NetMapper Software
Automated Network Documentation
OPNET NetMapper software accelerates network diagramming, auditing, and troubleshooting by automatically generating up-to-date infrastructure diagrams. Diagrams include detailed logical and physical device configuration information and logical views of the network, including Layer 2/3, OSPF, EIGRP, HSRP/VRRP, BGP, VLANs, Spanning Tree, VPNs, and device virtualization.

Riverbed®OPNET nCompass Software
Real-Time Network Visualization and Monitoring
OPNET nCompass software provides unified, real-time visualization and monitoring of large, heterogeneous networks, including devices, their interconnectivity, traffic, status and events. OPNET nCompass software unifies data from a wide range of network management tools, providing consolidated views for more intuitive and productive navigation and analysis. Third party tools and scripts can be launched from the OPNET nCompass console for deeper drill-down and expedited troubleshooting.

Riverbed®OPNET Sentinel Appliance
Network Audit, Security, and Policy Compliance
OPNET Sentinel appliance ensures network integrity, security, and policy-compliance. It performs automated network-wide configuration audits, analyzing an up-to-date model of your network to diagnose device mis-configurations, policy violations, configuration inefficiencies, and security violations. OPNET Sentinel appliance enables organizations to reduce network outages, ensure network security, verify regulatory and policy compliance, and enhance staff productivity.

Riverbed®OPNET Network Planner Software
Network Planning and Engineering
OPNET Network Planner software automates analysis and planning of multi-technology, multi-vendor networks. It performs “what if” analyses to manage risk and cost associated with network growth and change – accelerating application deployments and migration to new technologies, such as VoIP, VPNs, IPv6, and more. OPNET Network Planner’s predictive design environment trends traffic growth for capacity planning, optimizes network designs to reduce the risk of downtime, and proposes QoS configurations to achieve desired net-work and application performance.

Riverbed® OPNET SP Guru Transport Planner Software
Transport Network Planning and Engineering
OPNET SP Guru Transport Planner designs resilient, cost-effective DWDM and SONET/SDH networks. OPNET SP Guru Transport Planner integrates with OPNET SP Guru Network Planner for IP-over-DWDM network planning, providing unique multi-layer traffic engineering capabilities to optimize network capacity and reliability.