riverbed®

Riverbed NetPlanner

Network planning and traffic analysis

The Business Challenge

With the influx of new devices, multiple application delivery methods, and higher bandwidth communication methods, networks are handling increasing large volumes of traffic and becoming increasingly complex. Yet they are vital, carrying information that, literally, is the business.

Unfortunately, these networks often underperform. The gap between business needs and performance realities is a regular occurrence for most executives with 36% of C-level respondents saying they struggle daily with this challenge and 58% who struggle weekly.[1]

Companies need to ensure that the network is robust and stable, that it is capable of surviving node failures, and that technology rollouts (e.g., cloud migrations) improve performance rather than cause problems. They need to meet end-user expectations for availability and high quality of service (QoS) but they need to plan effectively to balance these performance expectations against cost realities.

[1] Riverbed Global Application Performance Survey 2015, riverbed.com/globalapplication-performance-survey.html, p4

The Riverbed Solution

Riverbed® NetPlanner is a comprehensive solution that helps companies plan, design and analyze multi-technology, multi-vendor networks. The solution provides complete lifecycle support including network data import, baseline analysis, network change planning, survivability analysis, and configlet generation to apply changes to devices.

NetPlanner's unique ability to model the behavior of the entire network and supported applications:

- Automates capacity planning, survivability analysis, and traffic engineering workflows combined with comprehensive, business-relevant reporting

- Delivers data-driven predictions for validating network changes due to growth, technology migration, and pre-deployment analysis before deploying to the production network

- Supports planning for traffic trends, technology rollouts and key initiatives such as data center migration, deployment of Unified Communications, VPN, and IPv6 migration

- Improve network survivability by predicting the impact of node, link, or shared risk group failures and network planning protection strategies

Key Benefits

NetPlanner help carriers, ISPs, government agencies, and enterprises facilitate service and technology deployments, meet service level agreements, maximize existing network investments, plan for significant application migrations, and obtain significant return on investment (ROI).

Understand the impact of planned changes

- In-depth analysis of "what-if" scenarios compares infrastructure change (pre- and post-change) impact on network performance

- Evaluate different network architectures and technology migration plans

Right-size network to meet performance needs

- Cost-effectively plan network requirements to support the deployment of new applications and technologies such as VoIP and IPv6

- Right-size network capacity to support projected traffic growth

Minimize risk

- Simulate application migrations prior to going live

- Achieve service level compliance through QoS and traffic engineering

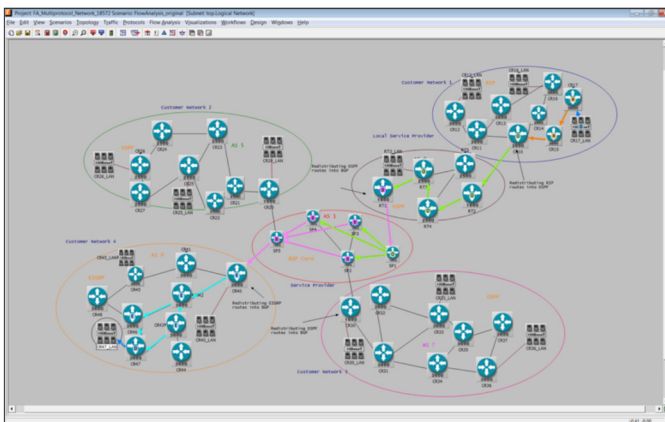- Improve network survivability and security

Figure 1
NetPlanner allows you to analyze and edit traffic and run what-if analyses, with flexible visualizations.
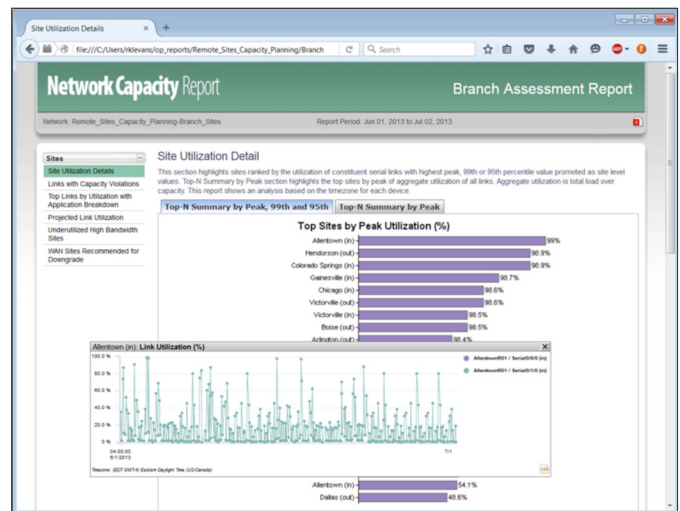

Figure 2
Network Capacity report enables company to analyze and network right-size infrastructure.

Key Features In-Depth

- Automatically create a high-fidelity network model encompassing topology, devices, configurations, and traffic using configuration and operational data from the production environment and other network management systems

- Automatically design and optimize network topologies based on user-configurable priorities for cost, resiliency, and performance related criteria such as link utilization and reduced delay

- Leverage best-in-class analytics to evaluate a wide range of "what-if" scenarios in a virtual environment without making changes to the production network routing such as VPN or QoS configuration

- Model application behavior within cloud and data center environments enabling you to mitigate enterprise risk of application migrations between data centers, to the cloud, and between cloud providers

- Visualize all VPN deployments, their underlying topology, traffic flows, and relevant KPIs from a single browser dedicated to VPN analysis

- Analyze network capacity usage to identify trends, threshold violations, inefficiencies, atypical behavior, and the timing of future upgrades to links and tunnels to meet service level objectives

- Import flow information from Riverbed® NetProfiler for realistic traffic flow information when performing capacity analysis and planning

Add-On Modules

CarrierPlanner

The CarrierPlanner module enables network planners to understand and analyze network technologies used in service provider-grade networks.

- Planning and design for networks with MPLS, Intermediate System to Intermediate System (IS-IS) and Metro Ethernet configurations

- Planning and design using network information stored in the Alcatel-Lucent 5650 Control Plane manager (CPAM) server

- Enables the BGP Peering Center

NetMapper

The NetMapper module is used to generate physical and logical diagrams for the planning workflows.

- Generate physical Layer 2 and Layer 3 network diagrams

- Generate logical diagrams such as OSPF, BGP, VLAN, etc.

- Generate MPLS and IS-IS diagrams [requires CarrierPlanner module]

- Create diagrams in HTML and Visio formats

- Highlight network differences in diagrams

OpticalPlanner

The OpticalPlanner module allows the design and analysis of DWDM, OTN, and SONET/SDH optical networks.

- Integrates seamlessly with NetPlanner enabling multi-layer planning and analysis capabilities

- Integrates packet and transport network planning
  - Reduce cost by cross-layer capacity optimization
  - Design an optimal transport network to support IP/MPLS services
  - Perform multi-layer survivability planning
  - Generate SRGs based on knowledge of the underlying transport connections
  - More accurately predict delay in the L2/3 network

Related Products

Riverbed® NetIM

NetIM helps companies discover, collect and monitor infrastructure, analyze performance, and proactively manage and report. The solution acts as the central topology, traffic, configuration and events data repository and event integration engine for Riverbed NetAuditor and Riverbed NetPlanner.

Riverbed® NetAuditor

Automates network mapping, documentation, auditing, security, and policy compliance. Riverbed NetAuditor is a comprehensive solution that helps companies diagram, manage and report enterprise configuration. The solution's context-specific network maps and diagrams enables users to troubleshoot network and configuration issues, automate audit.

Learn More

For IT, application performance is the most visible indicator of job performance, and that's why organizations around the world rely on the Riverbed® NPM products for the insight they need to deliver a consistently top-notch user experience. With our performance management solutions, you can monitor every critical part of your application delivery chain and troubleshoot any issues that arise—before they become problems. Whether you are rolling out new applications, consolidating or virtualizing data centers, migrating to the cloud, or simply in need of a troubleshooting and visibility solution, Riverbed NPM provides you with a holistic view of your environment.

To learn more about Riverbed NPM solutions, including the Riverbed NetPlanner, please visit: riverbed.com/npm.

About Riverbed
Riverbed enables organizations to maximize performance and visibility for networks and applications, so they can overcome complexity and fully capitalize on their digital and cloud investments. The Riverbed Network and Application Performance Platform enables organizations to visualize, optimize, remediate and accelerate the performance of any network for any application. The platform addresses performance and visibility holistically with best-in-class WAN optimization, network performance management (NPM), application acceleration (including Office 365, SaaS, client and cloud acceleration), and enterprise-grade SD-WAN. Riverbed's 30,000+ customers include 99% of the *Fortune* 100. Learn more at riverbed.com.

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