

Riverbed NetIM

Infrastructure management, monitoring and troubleshooting

The Business Challenge

Maintaining a high-performing and secure network across today's complex hybrid infrastructure requires holistic visibility. Over 58% of enterprises report blind spots in their digital delivery chain is a significant challenge¹. Infrastructure teams often have difficulty managing proactively while performance blind spots make troubleshooting problems difficult and time consuming across their multi-cloud hybrid infrastructure.

Unfortunately, disruptive technology is only increasing this pressure. DevOps causes servers to quickly be added and retired, cloud adoption causes new network challenges, and IoT places increased burden on network bandwidth and performance. Without a new, holistic approach to ITIM, companies will fall behind, failing to deliver the initiatives and services that drive the business.

The Riverbed Solution

Riverbed® NetIM is a holistic solution for discovering, modeling, monitoring and troubleshooting your infrastructure. It enables companies to capture infrastructure topology, detect performance and configuration issues, map application network paths, diagram your network, and troubleshoot infrastructure problems. NetIM is built on a modern containerized architecture to provide expansive horizontal scalability, ultra high performance and cloud deployment for operational agility. As an integrated component of the Riverbed NPM platform, customers are able to manage infrastructure issues in the context of overall, blended performance management.

- **Comprehensive Visibility:** As a part of the Riverbed Unified NPM, NetIM adds critical infrastructure data and analysis. This complements other performance domains (application performance, network performance, UC, and end-user experience management), and provides context to infrastructure management. It enables companies to holistically manage performance and rapidly troubleshoot problems.
- **Real-Time Monitoring:** Riverbed NetIM leverages multiple approaches (e.g., synthetic testing, SNMP, CLI, and IP SLA Metrics, Syslog, Traps) to continually discover and identify new and changed infrastructure components.
- **Automated Analytics:** Powerful analysis enables you to establish performance baselines, measure current performance, and identify anomalies and violations. Configuration information is also captured and similar analytics are applied to detect and identify configuration changes, which may impact the infrastructure.
- **Rich Visualization:** Riverbed NetIM provides a rich set of tailored information from real-time topology with information overlays and dashboards for level 1 operations, to advanced reporting for heads of IT operations.
- **Troubleshoot Performance:** Search-based workflows, event management, and on-demand network paths enable companies to quickly identify and troubleshoot infrastructure performance issues. In addition, Portal-based blended views enable organizations to analyze infrastructure issues in the context of applications, network, and end-user performance.

¹Digital Enterprise Journal - April 2020

Modern Application Architecture

NetIM is designed to meet the scale and performance demands of the largest of the large enterprises. Designed from ground up with webscale technologies such as containerized micro services, Kafka messaging framework, Cassandra big-data database and multi-tenancy, IT teams can expect:

- High degree of horizontal scale
- Microservices for superior fault tolerance
- Ultimate operational agility with cloud deployment
- Highest data security with multi-tenancy

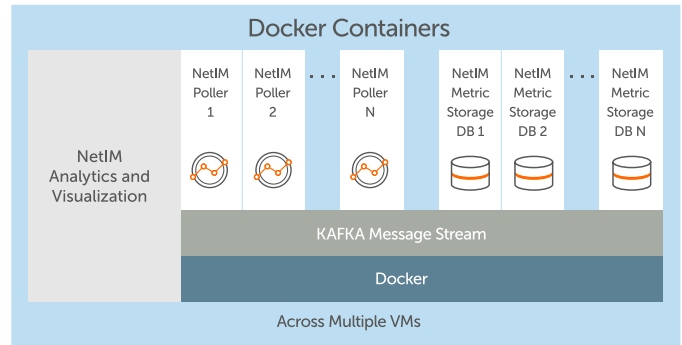


Figure 1: Riverbed NetIM containerized architecture.

Key Benefits

Riverbed NetIM dramatically reduces the workload associated with managing and monitoring your infrastructure. It maximizes network availability by reducing performance blind spots, empowering proactive infrastructure management, and improving troubleshooting.

Increasing IT infrastructure visibility and understanding

- Discover and map infrastructure devices
- Identify changed devices
- Leverage real time network topology views to monitor infrastructure performance

Alerting and anomaly detection

- Alert filtering and site suppression
- Automatically set performance baselines
- Identify performance deviations
- Streamline hand-off between infrastructure and network teams

Troubleshoot infrastructure issues with actionable intelligence

- Drill-down from high-level blended performance views to application specific topology maps
- Quickly identify infrastructure elements that are underperforming or misconfigured
- Understand application path as it travels throughout the network

Get started rapidly and easily

- Horizontal Scale: Highly distributed with horizontal scale architecture to meet enterprise needs for large and complex infrastructures
- Cloud Deployment: Available as virtual or cloud deployments
 - ESXi 6.5 and 6.7 OVA
 - AWS, AWS GovCloud, and AWS C2S
 - Azure and Azure Government



Figure 2: Home page enables you to visualize infrastructure performance by site, device, and by type.

Key Features In Depth

Real-time network topology

- Riverbed NetIM leverages multiple approaches (e.g., synthetic testing, SNMP, IP SLA, Metrics) to identify new and changed components within the infrastructure topology
- A new topology view is updated in real-time providing instant insight into the health and performance of the managed infrastructure

Reporting

- Reports including Performance, Inventory, Availability, Configuration and more
- Capacity Performance reports help customers identify short-term and long-term capacity needs on links and other objects across global infrastructure

Proactive performance management

- Curated views provide drilldown details into site, group, device, interface and IP SLA metrics
- Out-of-the-box reports provide insight into your managed infrastructure and operational issues
- Automated health index scores help identify poor performers
- Synthetic testing allows you to proactively monitor application availability and performance remotely from various locations in your network

Efficient troubleshooting

- Troubleshooting Toolbox empowers IT operations managers with the ability to triage and troubleshoot issues that relate to network availability, performance and configuration information
- Metrics navigator provides in-depth visibility and troubleshooting into the performance issues by letting users mix and match multiple metrics from different devices in a single view and compare them
- AppNetwork path shows how application data transverses the network making performance troubleshooting easier
- One-click drill down between NetProfiler and NetIM combines network traffic information with infrastructure (availability, performance and configuration)

Integrations

- **NetProfiler:** One-click drill down between NetProfiler and NetIM combines network traffic information (Flow visibility) with infrastructure health (SNMP) in a single pane of glass, to enable application-aware infrastructure visibility
- **Portal:** Through REST API, NetIM integrates with Riverbed Portal which collects and analyzes data from multiple sources, including network flows, packets, device metrics, application transactions, user experience, and synthetic tests. It presents all analysis in one console to find the source of trouble and correct it quickly.
- **Splunk:** Easily integrate with Splunk data platform to consolidate infrastructure alerts. NetIM simplifies integration with out-of-the-box Splunk notification template or customize the template to meet your specific needs.

Wireless LAN Monitoring

- Provides visibility into which controllers are being accessed, and which clients are connected to which access points
- WLAN Monitoring delivers the following performance data:
 - Access Point status and statistics (e.g. quantity by model, OS version, type)
 - WLAN Controller statistics (e.g. aggregated WAP health, total active client count, AP status percentage)

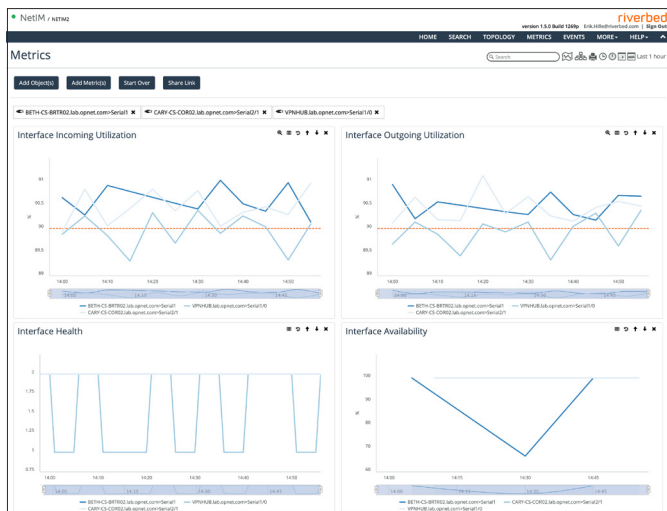


Figure 3: Metrics navigator lets you analyze metrics from multiple devices in a single view.

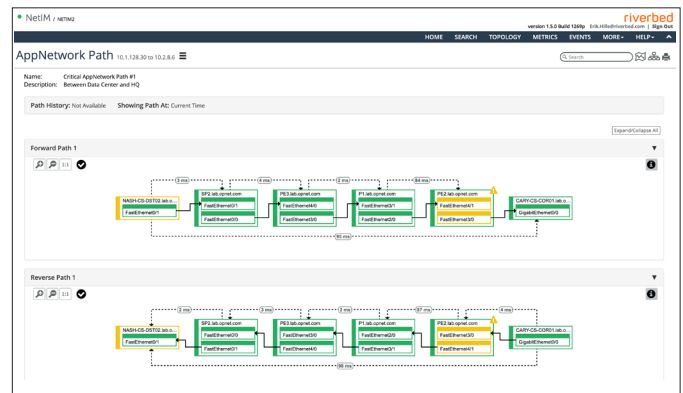


Figure 4: AppNetwork path lets you view application data as it transverses the network.

Riverbed Unified Network Performance Management

Riverbed NPM solution makes it easy to monitor, troubleshoot, and analyze what's happening across your hybrid network from users to the data center to the cloud. With end-to-end visibility and actionable insights, you can quickly and proactively resolve performance issues, fortify security, and ensure your cloud workloads and SaaS applications meet your SLAs.

Riverbed's unified network performance management solution gathers all packets, all flows, all device metrics—all the time. It does this across all environments—on-premises, virtual, and cloud—to enable business-centric views across all your domains. Whether you are rolling out new applications, consolidating or virtualizing data centers or migrating to the cloud, Riverbed unified NPM provides service centric insights into existing infrastructure and applications to enhance work from anywhere users' experience.

Related Products

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 reporting, and better execute network changes.

Riverbed NetPlanner

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. Riverbed® NetPlanner'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 network and application performance.

Riverbed NetProfiler

Provides troubleshooting and root cause of network and application issues with end-to-end network performance monitoring. The solution combines data from Riverbed® Flow Gateway, SteelHead, and AppResponse appliances, as well as virtual solutions into a single, integrated view.

Learn More

To learn more about Riverbed NetIM and unified NPM, please visit riverbed.com/NPM.

About Riverbed

Riverbed enables organizations to maximize visibility and performance across networks, applications and end-user devices, so they can fully capitalize on their IT, hybrid workplace and digital investments. Riverbed solutions enable organizations to visualize, optimize, remediate and accelerate the performance of any network for any application, while supporting business objectives to mitigate cybersecurity risk and enhance the digital experience for all end users. Riverbed offers two best-in-class product lines: end-to-end visibility solutions – including Network Performance Management and Digital Experience Management (APM and EUEM) – that delivers actionable insights; and network and acceleration solutions, including application acceleration (SaaS, client and cloud acceleration), WAN optimization, and enterprise-grade SD-WAN. Riverbed's 30,000+ customers include 95% of the *Fortune* 100. Learn more at riverbed.com.

The Riverbed logo consists of the word "riverbed" in a lowercase, sans-serif font. The letters "river" are in a dark blue color, and the letters "bed" are in a bright orange color.