

Solutions for AIOps

Harness the power of AIOps to become more agile, proactive, and predictive in your IT operations.

The Business Challenge

Complexity in every shape and form defines modern IT operations. From the complexity of the mix of applications to the complexity of building and deploying those apps to the complexity of the delivery infrastructure, IT is faced with more apps, systems and platforms than ever to keep up and running in peak condition. Any compromised link in the chain can have a domino effect costing the business millions of dollars in lost revenue or employee productivity.

While this complexity is driven by the growing pressures of agility and cost efficiency, it also increases business risk. To manage this complexity and meet their business goals, organizations need to harness the power of big data, machine learning, and automation to become more agile, proactive, and even predictive in their IT operations.

Go beyond the hype with Riverbed's integrated cross-domain data and insights

Slick dashboards and the occasional snapshot detail are no longer enough to address the often subtle and interdependent causes of digital performance issues. Today's IT operations needs to be equipped with better and more complete diagnostic data, machine learning and automation capabilities, and a variety of analytics tools to pivot and visualize the data from a number of different perspectives.

Artificial Intelligence for IT operations (AIOps) takes the big data generated by IT tools and platforms and applies algorithms and automation to unlock business agility and insights. With Riverbed, IT teams can merge AIOps approaches into their infrastructure and monitoring strategy to proactively surface and remediate performance issues before they impact end users and the business. And synergistically, Riverbed's solutions can deliver high quality metadata for AIOps tools to extract into meaningful business intelligence reports and dashboards.

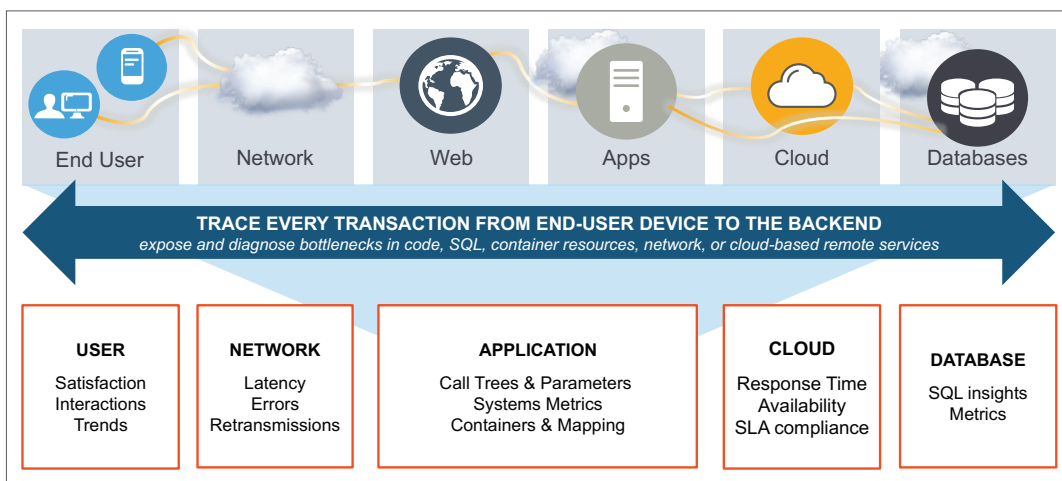


Figure 1
Riverbed delivers cross-domain visibility for digital performance.

Get Actionable Insight with Business and User Context

For information to be truly useful, it must be presented in context. Topology models and visualizations are frequently applied to IT data to surface and illustrate dependencies and enable the troubleshooter to follow the chain of events to the root cause. With Riverbed's transaction-based topology model, granular troubleshooting data is presented in the context of the user-submitted transaction which is stitched end-to-end as it traverses the infrastructure. Armed with this context, you're only two clicks from an answer to virtually any performance question.

- Store complete transaction records, with full user and business payload detail, indexed across billions of transactions. Use simple queries to quickly generate business-relevant reports, track user journeys, compare historical performance, or drill down for further analysis.
- Enhance troubleshooting with fully integrated application, network, log, and systems data presented in the context of the end user transaction so you can clearly see who was affected, how, and what they were trying to do. For example, easily search across log messages to immediately see which methods generated the errors or exceptions, and quickly identify every business transaction and user that was impacted.
- Prioritize the development efforts that will have the most overall business impact by identifying the backend components implicated in the most important transactions, by processing time, volume or financial value.

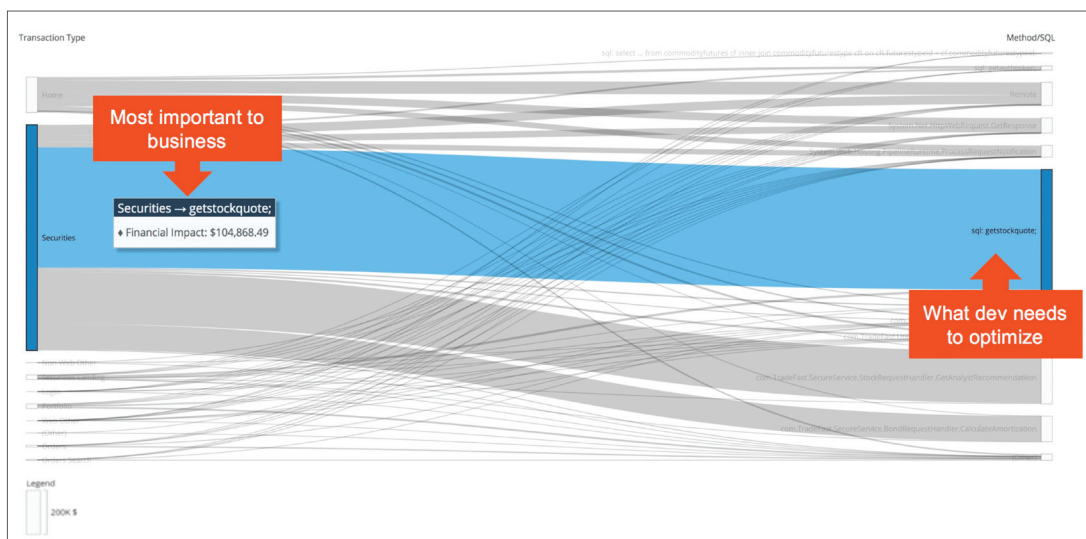


Figure 2
Riverbed's Performance Graph maps crucial dependencies and helps you prioritize troubleshooting and optimization efforts based on business impact.

Quickly Surface Insights with Machine Learning

With Riverbed's scalable big data technology and advanced analytics, you can automatically detect anomalies, surface insights and proactively resolve issues before business is impacted.

- Ensure accurate analysis and eliminate blind spots with high definition metrics and complete diagnostics data.
- Identify common attributes across overall application performance issues or issues with particular user activities to narrow down the list of possible culprits.
- Be proactive with automated anomaly detection that alerts you to unusual performance behavior before end user SLAs are breached. Understand user satisfaction and set thresholds based on performance baselines or aggregate scoring systems (e.g., Apdex or MOS scores).
- Surface unsuspected issues with pattern recognition based on performance "clusters" and "correlations" to identify groups of related transactions and metrics, and quickly find the needle in the haystack.

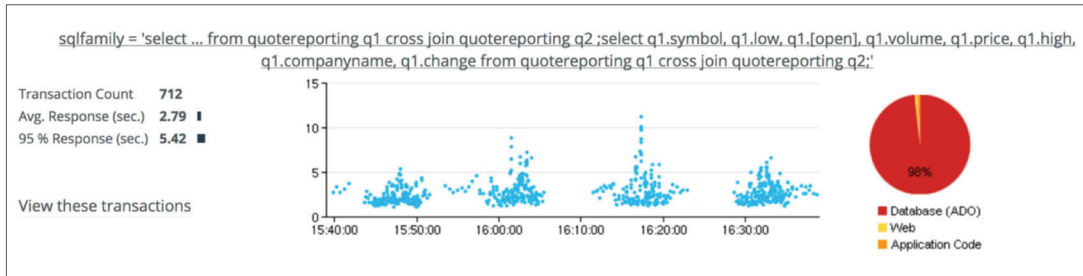


Figure 3
Riverbed AppInternals features a cluster operator that uses pattern recognition to automatically find sets of related transactions and their common attributes.

Automatically Identify and Remediate Issues

Most organizations have runbook processes that specify the actions for IT to take in response to commonly expected problems. These processes clarify how to analyze the problem conditions, diagnose the issue, and then fix it, based on a set of recovery actions that are often encapsulated in scripts that clear the condition and verify proper operation. With Riverbed, IT can save time by automating repetitive tasks, and empower lower level teams to resolves issues without escalating to more expensive resources.

- Build a library of remediation actions for end user device-based problems that can be executed either automatically or manually by the IT Service Desk in response to recurring problems like hard drive failures, app or system crashes, low disk space, etc.
- Improve user satisfaction, reduce trouble ticket volume and duration, and improve first level resolution rates by automating the recovery actions necessary to get the user back into action.
- Take automated action based on rules that assess the severity of the problem (e.g., when the problem occurs several times on the same device within a certain time) and whether human intervention is required (e.g., prompt the user for confirmation to execute the recommended remedial action or create a trouble ticket).
- Maintain a complete log of the remediation actions taken, their success or failure, and who implemented them.

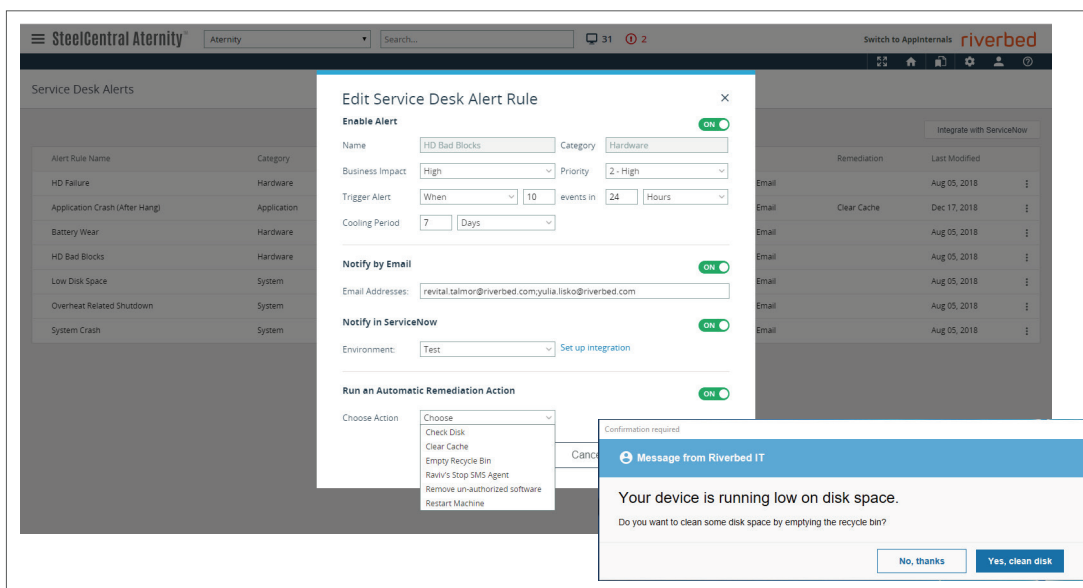


Figure 4
Riverbed Aternity can initiate automated remedial actions, including custom scripts for specific types of Service Desk Alerts.

Automate Network Connectivity and Accelerate Applications

SD-WAN technology offers an intelligent management layer to the network that translates business requirements into operational policies, allowing many tasks to be automated and administration to be far less labor intensive. With Riverbed, organizations can uniquely leverage single-click creation of cloud connectivity and replace the pains of WAN management complexity with cloud-era IT agility.

- Automatically expand the SD-WAN fabric as new cloud instances are spun up and enhance user experience for cloud-hosted apps.
- Monitor the health of WAN links and automatically route traffic onto the best alternate path when the primary path becomes congested.
- Automatically identify traffic by application, assign appropriate priority, and steer it according to policy-based rules. Achieve cost savings by automatically splitting traffic between low-cost and highly-available WAN links based on business criticality.
- Automate secure connectivity, zero-touch provisioning, and VPN management between on-premises and cloud network environments.

Related Products

Riverbed® SteelCentral™ AppInternals

Scalable, high definition application performance monitoring with deep visibility into transactions, containers and services, on or off the cloud.

[Learn more.](#)

Riverbed® SteelCentral™ AppResponse

Network performance monitoring across on-prem, virtual and cloud environments delivering web page analysis and deep packet inspection. [Learn more.](#)

Riverbed® SteelCentral™ Aternity

End user experience monitoring from the point of consumption for any local, cloud, mobile, or SaaS app running on any device. [Learn more.](#)

Riverbed® SteelConnect™

Application-defined SD-WAN solution for designing, deploying and managing distributed networks in today's cloud-centric world. [Learn more.](#)

Architected for Big Data Scale

Riverbed ensures the performance and reliability of any business-critical application, running on mobile, virtual, and physical devices. Its proprietary big data technology captures, processes and stores high quality non-aggregated diagnostics data so you can reconstruct and diagnose any issue, across any domain. Riverbed's cross-domain visibility extends across end user insight, high definition container and systems metrics, end-to-end application traces, transaction payloads, and network packets and flows.

About Riverbed

Riverbed®, The Digital Performance Company™, enables organizations to maximize digital performance across every aspect of their business, allowing customers to rethink possible. At more than \$1 billion in annual revenue, Riverbed's 30,000+ customers include 98% of the *Fortune* 100 and 100% of the *Forbes* Global 100. Learn more at riverbed.com.

The Riverbed logo consists of the word "riverbed" in a lowercase, sans-serif font. The "r" is orange, and the "iverbed" is dark blue. A registered trademark symbol (®) is located at the top right of the "d".