Challenges in Observability

Connecting Fragmented Tools into an AIOps Strategy

riverbed®

Data Silos Undermine AI Strategy

In every modern IT organization regardless of size, industry, or maturity, there's one commonality: complexity.

Complexity drives an ever-increasing demand for comprehensive observability data to ensure IT teams can monitor critical environments and deliver services with the required levels of performance.

Every digital touchpoint, every component in cloud or on-prem infrastructure, generates signals requiring interpretation, correlation, and action. This task is even more complicated in newer, difficult-to-monitor situations such as remote work, Secure Access Service Edge (SASE) or Zero Trust environments.

Data is at the heart of effective decision-making and operational efficiency, and the strategic use of data—collected, processed, and leveraged through Artificial Intelligence (AI)—can offer substantial competitive advantages. However, this data typically lives in silos—network logs here, application metrics there, user experience data somewhere else. **When observability tools operate in isolation, they produce isolated signals and inaccurate AI Insights.** That means more alerts, more false positives, more wasted time, and less clarity.

81% of senior business leaders acknowledge that their data was scattered across different silos within the organization.[1]

1 Source: Riverbed AI Study 2024

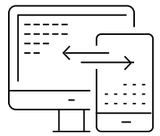
Tools Proliferation Impedes IT Ops Success

While the value of a unified and comprehensive view of monitoring data is clear, most IT organizations struggle to get a system and process in place to achieve this. The journey is often blocked by a mix of organizational, technical, and cultural challenges that make data integration difficult to execute and sustain.

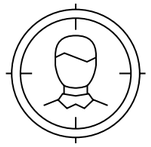
Some of the most common challenges include:

Organizational Alignment:
Infrastructure, application, network, and security teams each operate their own toolsets with little coordination. This fragmentation creates competing priorities and misaligned data, making it hard to build consensus around a comprehensive approach.

Tool Redundancy:
Over time, teams accumulate overlapping technologies through acquisitions, shadow IT, or one-off initiatives. Each new tool adds complexity, licensing costs, and data discrepancies, while decreasing the overall effectiveness of observability.



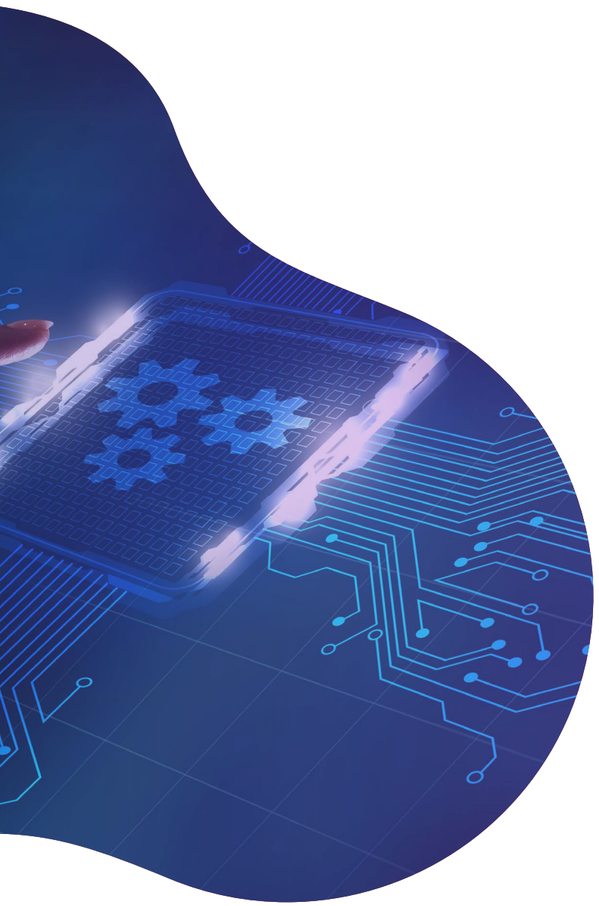
Integration Fatigue:
Many IT leaders experience failed or half-baked integration attempts that drain resources without delivering meaningful outcomes. The result? Growing skepticism about “yet another platform” that promises to pull it all together.



Lack of Skilled Resources:
Implementing and managing integrations often requires specialized skills and expertise in areas such as API development, data integration, and middleware technologies. Finding and retaining these resources can be a challenge for many organizations.

The problem isn’t a lack of tools—it’s a lack of alignment, integration, and context across the tools deployed within IT.

Ineffective Automation Compounds the Problem



Automation eliminates human error in repetitive manual tasks. It can similarly enhance AI for IT Ops (AIOps) by turning AI-driven insights into fast, consistent, and scalable actions.

Caveat: Blindly automating inefficient or outdated processes only compounds dysfunction. Poorly designed automation can result in faster failure rather than faster resolution.

To avoid this trap, automation must be informed by:

- **High-quality, correlated data** that reflects the true root cause.
- **Contextual awareness**, so the response matches the severity and scope.
- **Intelligent decision making**, using causal, predictive, and generative AI.

AIOps automation should:

- **Reduce noise,** not amplify it.
- **Accelerate root cause analysis,** not mask symptoms.
- **Empower lower-tier staff** to solve issues that typically require subject matter expert knowledge.
- **Adapt to your environment**, learn continuously and avoid massive retraining or retooling.

Real value comes not from just automating actions, but from automating the right actions, based on an accurate, real-time, full- fidelity understanding of what is happening in your environment. Automation isn't just about speeding up actions and reactions—it's about creating a system where integration and intelligence reinforce one another continually.

To be effective, automation should be built on a foundation of full-fidelity telemetry, intelligent analysis and correlation, expert systems, and reusable, customizable workflows. Only then can it offer the speed, quality, and repeatability needed for modern IT operations.

Effective Integrations Solve AIOps Automation Challenges

The ability to seamlessly connect disparate monitoring tools and observability products is essential for IT teams to unify monitoring data, optimize processes, enhance overall efficiency, and ultimately, deliver consistent user experience.

A well-integrated ecosystem unifies visibility across organizational domains—network, infrastructure, applications, and end users—creating an operating picture that's both comprehensive and coherent. This is crucial to precise AI analysis and outcomes, and particularly for the ever-increasing use of GenAI. Unifying observability data helps train AI models more effectively, reduces hallucinations, and produces more trustworthy analytics and recommendations.

When observability tools are integrated by design—not cobbled together after deployment—the impact is immediate:

- **Richer Context:** Events are enriched with full-fidelity cross-domain telemetry, revealing the who, what, where, and why of every incident.
- **Seamless Workflows:** Incident triage, escalation, and resolution flow smoothly when tools "speak the same language."
- **Faster Correlation:** With a unified data model and richer context, AIOps can spot patterns across layers, reducing noise and surfacing accurate root causes.
- **Higher Confidence:** Integrated insights eliminate guesswork, empowering automation to act decisively and correctly.

Integrating disparate tools and data sources used to mean lengthy projects and brittle connectors. But modern automation systems have changed this with low-code/no-code development tools, pre-built connectors, and capabilities such as auto-discovery of data sources, plug-and-play connectors, dynamic topology and data mapping, and reusable workflows simplify integration.

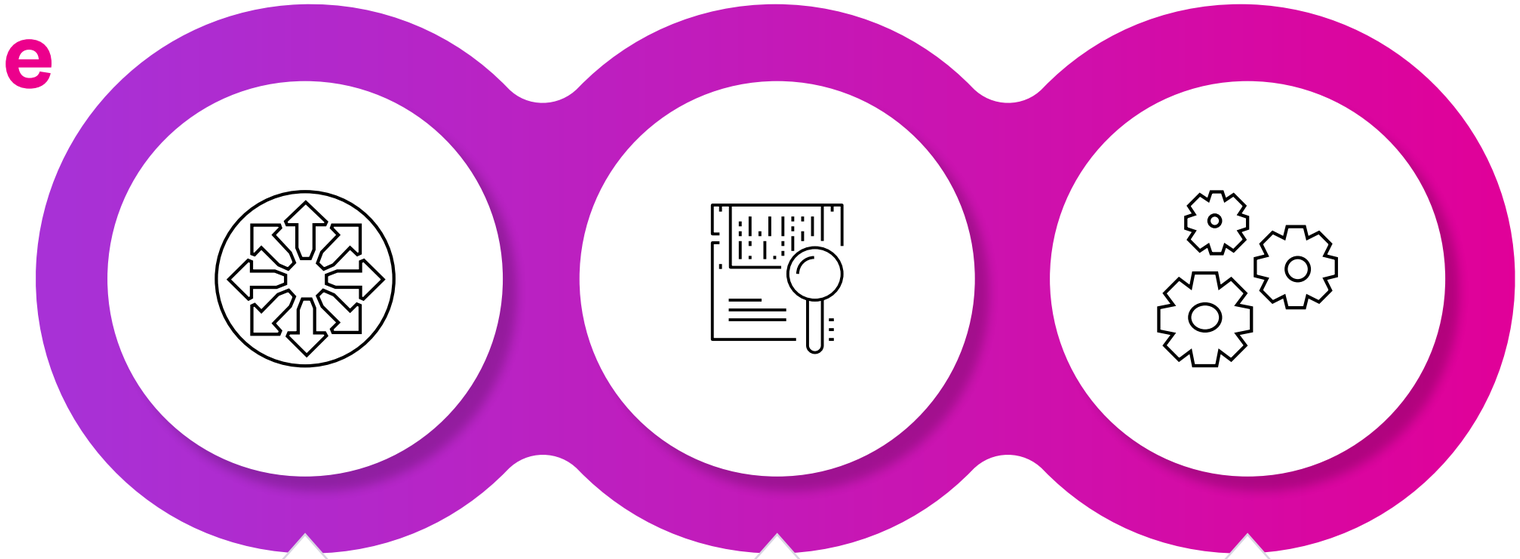
The result? Better decisions, faster responses, and smarter automation—at scale.

Riverbed's Approach:
Fast, Simple, Flexible Integration

The typical IT Ops challenges of alert fatigue, siloed operations, and slow resolution times are all symptoms of fragmented monitoring systems and data.

The Riverbed Platform and Data Store solve these issues and simplify IT Ops. Rather than layering AI and automation on top of a fragmented data environment, Riverbed focuses on unifying the core: data access, data collection, and end-to-end visibility.

Riverbed's integration strategy builds on the platform approach to eliminate friction and accelerate value. It's built on three core principles: **speed, simplicity, and flexibility.**



Faster Deployment With Pre-built Integrations:

Riverbed IQ offers an extensive Integrations Library with over 40 pre-built connectors to leading ITSM, observability, and productivity tools—including ServiceNow, Splunk, Microsoft Azure, AWS, AppDynamics, and Datadog. These ready-to-use integrations can be installed and configured in minutes, enabling IT teams to quickly unify their toolsets and streamline operations.

Simplicity Driven by Low-code/No-code Workflows:

With Riverbed's no-code/low-code automation tools, IT teams can design and deploy workflows that span multiple systems without the need for complex scripting. This empowers organizations to automate common tasks such as incident response, root cause analysis, and ticketing, reducing manual effort and accelerating resolution times.

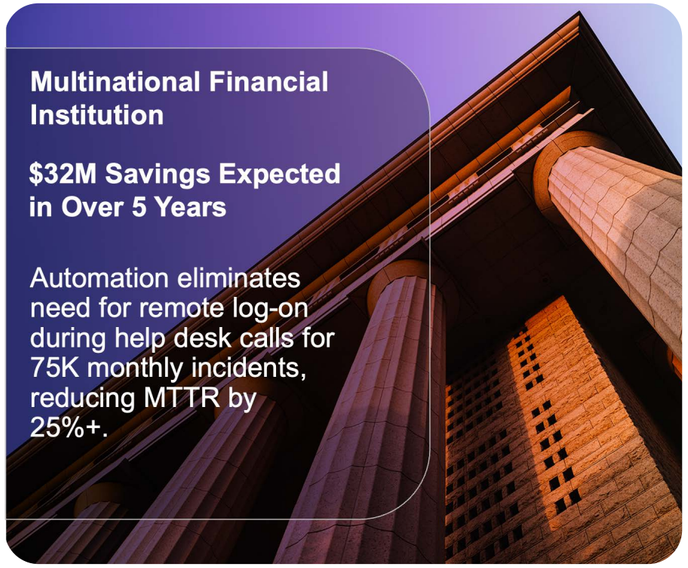
Flexible APIs for custom integrations:

For organizations with unique requirements, Riverbed provides secure, easy-to-use APIs that enable development of custom integrations. This flexibility ensures that Riverbed's platform can adapt to even the most complex and specialized environments.

The Power of Riverbed's Integration and Automation

By strategically connecting systems and consolidating tools through the Riverbed Platform, IT leaders can dramatically improve service delivery, reduce downtime, and enhance operational efficiency. This transformation is not just aspirational—it's achievable and is already delivering results.

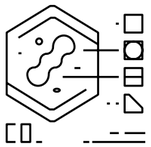
The Riverbed Platform doesn't just automate better—it automates smarter, integrates faster, and enables IT teams to fix more issues earlier, often before users even notice.



Connected Tools Drive Connected Outcomes

With the Riverbed Platform, AIOps moves from being an abstract concept to a tangible foundation for observability, analytics, correlation, and automation that continuously adapts to your unique environment. Riverbed enables IT leaders to consolidate tools, streamline operations, and unlock real-time, actionable insights.

Riverbed has made it easy to integrate disparate IT observability systems and eliminate data silos. The Riverbed platform provides:



Real-time, scalable data collection – from all sources of observability data via ready-to-use connectors or Smart OTel, enabled by our patented Data Store.

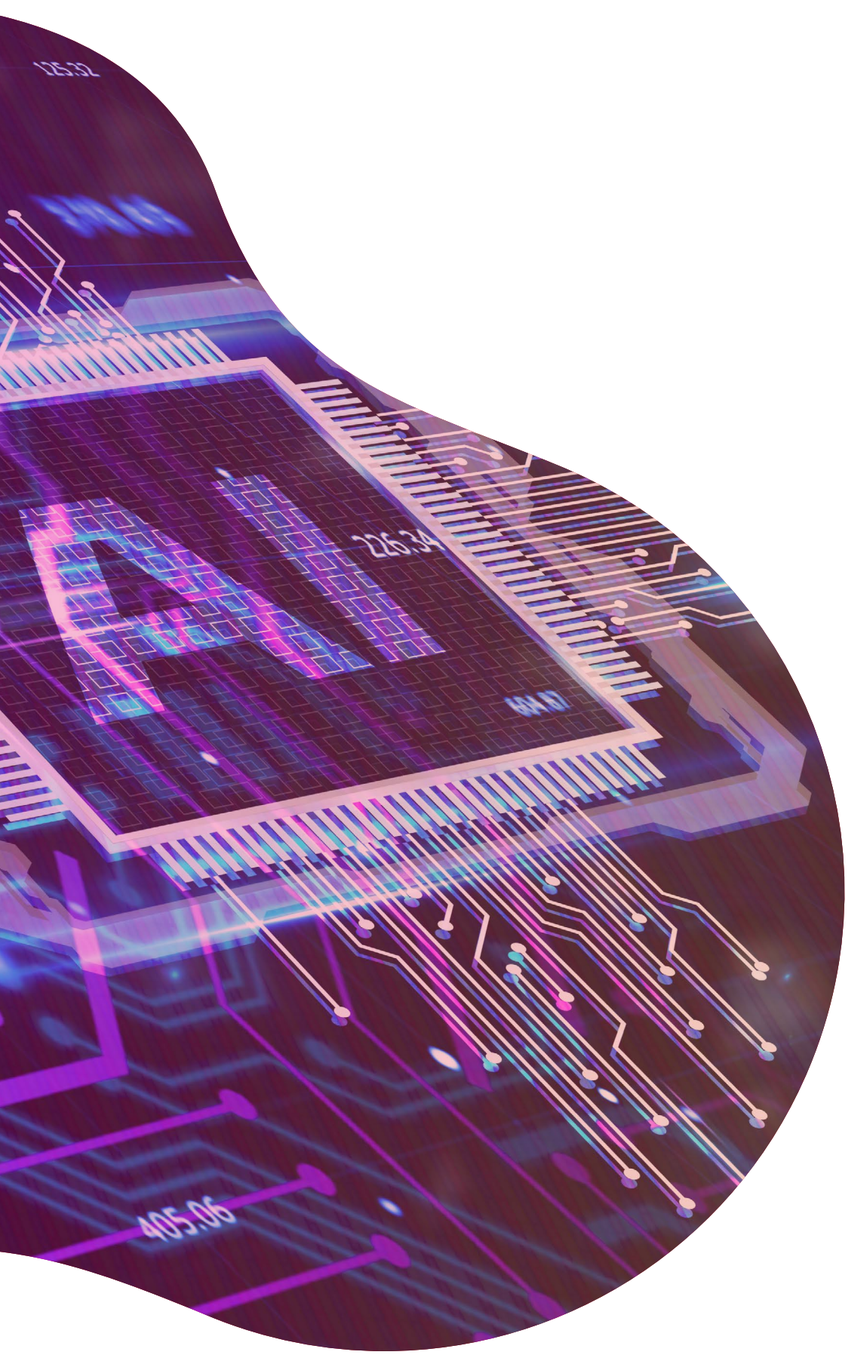
Seamless integrations with ready-to-use connectors in automation workflows for products deployed within your IT ecosystem.

No-code/low-code workflows to replicate investigation and remediation methods of subject matter experts, along with a library of automations for faster MTTR and improved SLAs – customizable by IT as needed.

AI-driven analytics, forecasting, and automation – for anomaly baselining, anomaly detection and prioritization of correlated insights, delivering adaptive causal AI and predictive AI.

Generative AI leverages the platform's adaptive AI for contextual and accurate natural language insights and remediation recommendations, as well as automated actions.

A library of Agentic AI skills and agents to simplify and enhance automated IT Ops outcomes, with full customer control of the degree of autonomy.



Conclusion

Riverbed Brings Your AIOps Strategy Actionable

Don’t let IT complexity define your operations. With Riverbed, AIOps becomes a business enabler, not just a buzzword. Riverbed helps you go beyond tool sprawl by delivering integrations that are seamless, fast, and purpose-built for modern IT operations.

With the Riverbed Platform integrating your ecosystem, you can:

- Move from fragmented visibility to full observability
- Connect data and actions across domains in real time
- Simplify deployment with pre-built integrations
- Customize workflows without writing code

Riverbed is the leader in AIOps for observability.

Are you ready to unify your observability tools and implement a smarter, more connected AIOps strategy?

We are ready to help you deploy AI that works—at scale.

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Riverbed – Empower the Experience

Riverbed is the only company with the collective richness of telemetry from network to app to end user that illuminates and then accelerates every interaction so that users get the flawless digital experience they expect across the entire digital ecosystem. Riverbed provides two industry-leading solutions: the Riverbed Unified Observability portfolio, which integrates data, insights, and actions across IT to enable customers to deliver seamless digital experiences; and Riverbed Acceleration, which offers fast, agile, and secure acceleration of any application over any network to users, whether they are mobile, remote, or on-premises. Together with our thousands of partners, and market-leading customers across the world, we empower every click, every digital experience. Learn more at riverbed.com.

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