Riverbed AppResponse

Packet-Level Observability for Deep Network Insight

Modern IT environments are more distributed, dynamic, and complex than ever before. Applications span on-premise, SaaS, and cloud environments, while users expect a flawless experience from any location. These evolving IT architectures introduce new layers of complexity that can mask the root causes of performance issues. To meet user expectations and maintain operational agility, IT teams rely on granular visibility at the packet level.

Uncovering the Truth Behind Performance

Packets are the definitive source of truth when diagnosing network and application performance issues. They offer a detailed, unfiltered view of interactions between users, applications, and infrastructure, revealing exactly what happened, when, and why. This clarity helps teams move beyond assumptions and instead rely on evidence-based troubleshooting.

The Riverbed Solution: AppResponse

Riverbed AppResponse enables faster network and application troubleshooting by combining high-speed packet capture and storage, deep packet inspection, application-aware analytics, and intuitive workflows. It supports flexible deployments across on-premises hardware, virtualized environments, and public cloud platforms, making it ideal for today's hybrid IT architectures.

By delivering continuous packet capture with real-time and historical application monitoring, AppResponse allows you to observe network and application interactions as they cross the wire. Continuous packet capture ensures rich, forensic-level detail that is always available, minimizing the impact of downtime on productivity and operations.
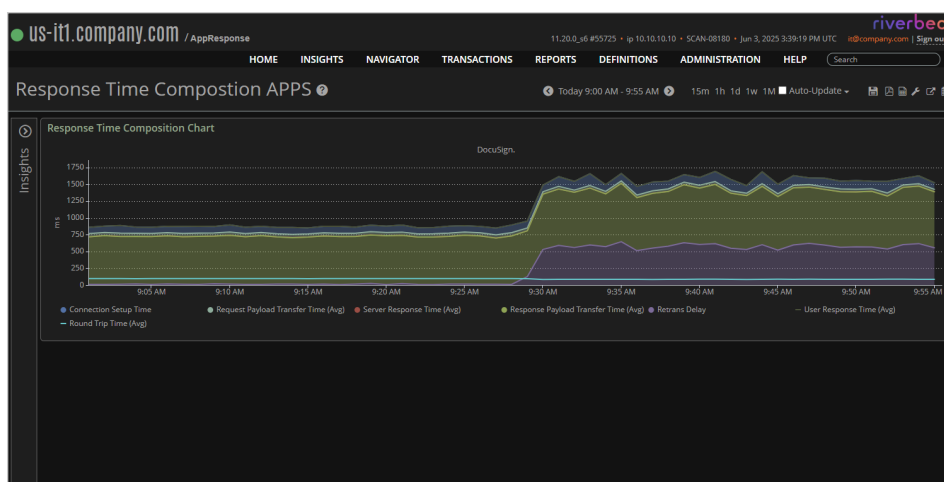

Figure 1: This AppResponse Response Time Composition Chart pinpoints delay sources across client, server, and network layers to accelerate root-cause analysis.

From Capture to Clarity

By uniting continuous packet capture with deep analytics, automation, and forensic capabilities, AppResponse delivers the intelligence needed to maintain resilient, high-performing digital services. Whether resolving an active issue, investigating a past security incident, or planning for future growth, IT teams gain the clarity and confidence to act quickly and effectively across any environment.

Deep Visibility

AppResponse supports comprehensive observability across on-premise, SaaS, and cloud environments and scales to monitor high-traffic volumes in modern networks. Packet-based analytics are supported by intuitive dashboards that visualize performance across users, applications, and locations using heat maps, time-series charts, and TruePlot® for high-volume traffic analysis.

Actionable Insights and Fast Answers

By capturing and storing every packet, AppResponse enables real-time and back-in-time analysis to quickly identify root causes. Pre-configured dashboards, response time composition charts, and flexible data filtering ensure rapid problem isolation. AppResponse automatically surfaces common causes of application latency – whether due to server processing, client-side delays, or network bottlenecks, requiring minimal effort from IT.
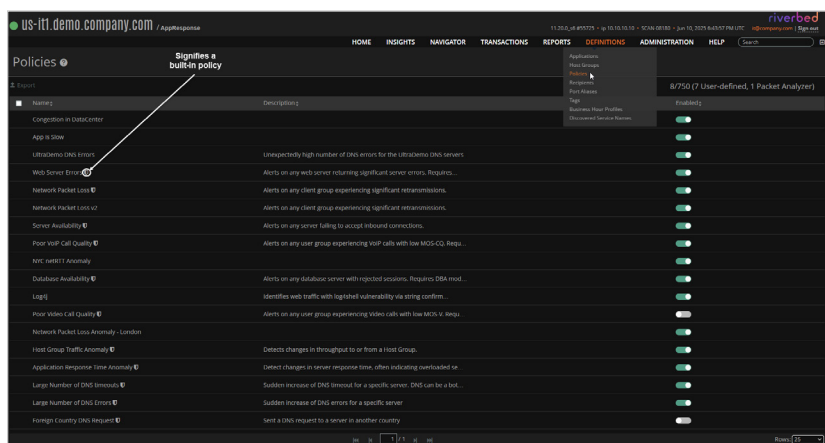

Figure 2: The AppResponse static and adaptive policy summary dashboard.

Network and Security Forensics

AppResponse offers precise, high-speed packet capture and microsecond-level resolution to investigate operational or security incidents, regardless of when they occurred. Real-time and historical tools help pinpoint application transactions and uncover root causes quickly. Deep integration with Packet Analyzer Plus further enhances forensic workflows, streamlining detailed packet inspection and accelerating complex issue resolution.

Stay Ahead of Performance Issues

With AppResponse, IT teams stay ahead of performance issues by replacing static thresholds with intelligent, behavior-based alerting. AppResponse continuously learns normal patterns for every monitored metric, then triggers customizable minor, major, or critical alerts based on how current data differs from the learned baseline. This dynamic approach allows AppResponse to highlight anomalies as they emerge, helping teams intervene before issues impact end user experience or business performance.

Network Automation and AIOps

Together with Riverbed IQ, AppResponse enables robust 'Day 2' network automation. This includes intelligent incident response, contextual diagnostics, and automatic ticket generation with smart prioritization and routing. Capabilities include:

- Multi-dimensional monitoring and correlation by time, location, user, device, and application

- Built-in alerting for availability, degradation, and packet loss based on adaptive thresholds

- Low-code automation to replicate expert troubleshooting workflows

- ServiceNow integration with context-aware incident creation and routing

- Support for SNMP and Syslog for broader ecosystem integration

- Automated packet forensics to augment security operations platforms

The result is a dramatically reduced mean time to resolution (MTTR), improved cross-team collaboration, and the ability to deliver consistent, high-performing digital experiences.

What Sets AppResponse Apart

- **End-to-end visibility:** Full-fidelity packet capture offers unified insights across physical, virtual, and cloud networks to help IT pinpoint problems faster, improve SLAs, and boost cross-team collaboration.

- **Rich forensic workflows:** Built-in dashboards and adaptive thresholds make it easy for Level 1 teams to identify and resolve network and security issues without escalation. Multi-terabyte trace files are analyzed directly on the appliance.

- **Encrypted traffic intelligence:** AppResponse preserves visibility across TLS/SSL traffic, including certificate usage, handshake timings, cipher details, and error tracking.

- **Specialized app-layer analytics:** Real-time visibility into UC services (Zoom, Teams), database queries, and web page objects ensures actionable insights for business-critical apps.

Specialized Analytics Modules

AppResponse offers advanced modules that provide deep visibility into critical application domains. These modules enable targeted monitoring and accelerated troubleshooting across web infrastructure, databases, unified communications, and transactional traffic without requiring agents or intrusive instrumentation.

- **ASA (Application Stream Analysis):** Delivers high-definition metrics for over 200 auto-recognized TCP and UDP applications, including response time, delay, retransmissions, throughput, out-of-order packets, and zero-window conditions. Enables root cause isolation by pinpointing whether latency originates from the network, application, or server.

- **WTA (Web Transaction Analysis):** Provides object-level visibility into web application traffic, allowing teams to assess how individual page elements contribute to user experience. Metrics include page load time, object retrieval delays, HTTP errors, and browser response breakdowns.

- **DBA (Database Analysis):** Offers agentless insight into SQL transaction performance by capturing and analyzing wire data. Surfaces query execution times, server processing delays, and transaction-level timing to quickly identify and resolve slow or failing database interactions.

- **UCA (Unified Communications Analysis):** Analyzes VoIP and video traffic for collaboration platforms such as Zoom, Microsoft Teams, and Cisco WebEx. Visualizes codec behavior, jitter, packet loss, call setup time, and MOS scores. Enables cross-location performance comparisons and root cause analysis of degraded call quality.
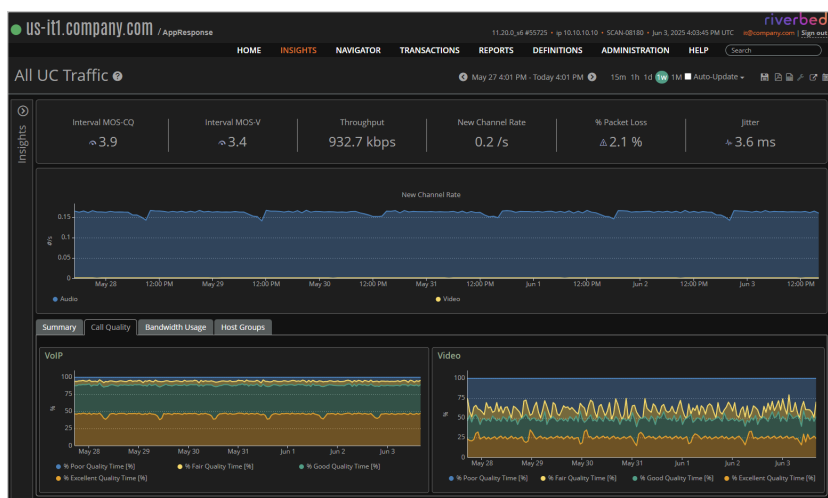
Figure 3: The All UC Traffic dashboard visualizes call quality metrics across VoIP and video services to quickly identify performance issues and user impact.

Integrations and Related Products

- **NetProfiler:** AppResponse exports enriched flow records to NetProfiler, and the combined solution allows users to drill down from flow-based analytics into packet-level insights, speeding root cause identification.

- **NetIM:** Combines infrastructure performance data with packet visibility to offer a broader view of how network devices impact digital experience.

- **NPM+:** Extends packet capture and analysis to endpoints for Zero Trust environments and remote user visibility, delivering telemetry that complements AppResponse data.

- **Riverbed IQ:** Automates investigation of workflows and alert triage using AI, enabling smart incident response across Riverbed's network observability ecosystem.

- **Packet Analyzer Plus:** Enhances forensic workflows with expert-level trace file review, annotation, and data sharing capabilities, tightly integrated with the AppResponse capture engines.

- **Riverbed Portal:** Aggregates data across Riverbed observability tools, allowing shared dashboards that include AppResponse application and network health metrics.

Use Cases

AppResponse is trusted by network and IT operations teams for a wide range of use cases, including:

- **Hybrid Network Troubleshooting:** Accelerate root-cause isolation in multi-vendor, multi-cloud environments by combining packet and flow analysis with application-aware insights, including DHCP and DNS issues.

- **Unified Communications Monitoring:** Proactively monitor VoIP and video call quality across platforms like Zoom and Microsoft Teams, resolving jitter, latency, or codec mismatches before they affect users.

- **Cloud Migration and Transformation Validation:** Measure baseline performance pre-migration, then validate post-deployment success using real transaction and user data.

- **Encrypted Traffic Analysis:** Maintain visibility into TLS/SSL traffic and certificate usage, even in Zero Trust environments.

- **Financial Services Optimization:** Analyze industry-specific protocols including FIX and Market Data Feeds – Aquis, Euronext, OPRA, LSE – with built-in gap detection views. Also supports visibility into virtual desktop environments like VMware PCoIP.

Flexible Deployment Options to Fit Any Environment

AppResponse supports a range of deployment models to align with your architecture and performance requirements:

- **Hardware Appliances:** Available in multiple configurations, these high-performance systems are purpose-built for core data centers and high-throughput environments—delivering industry-leading packet capture and analysis at scale.

- **Virtual Appliances:** Designed for deployment on VMware ESXi, Microsoft Hyper-V, and Nutanix AHV, these options provide scalable observability for fully virtualized networks.

- **Cloud Appliances:** Offered on AWS, Azure, and Google Cloud, these elastic, cloud-native deployments bring full-fidelity packet insight to your public cloud workloads.

Take Control of Performance

Riverbed AppResponse brings clarity to complexity. By delivering rich, actionable insights across the entire digital experience, AppResponse enables IT to solve problems faster, reduce downtime, and drive better outcomes for users and the business.

Visit the AppResponse or contact the Riverbed team to see AppResponse in action.

For full specifications, refer to the NPM Product Family Specifications Sheet.

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About Riverbed

Riverbed, the leader in AIOps for observability, helps organizations optimize their user's experiences by leveraging AI automation for the prevention, identification, and resolution of IT issues. With over 20 years of experience in data collection and AI and machine learning, Riverbed's open and AI-powered observability platform and solutions optimize digital experiences and greatly improves IT efficiency. Riverbed also offers industry-leading Acceleration solutions that provide fast, agile, secure acceleration of any app, over any network, to users anywhere. Together with our thousands of market-leading customers globally – including 95% of the FORTUNE 100 – we are empowering next-generation digital experiences. Learn more at riverbed.com.