# riverbed

# RiOS 10: The New Standard for High-Performance Data Acceleration

**Resilient Networking for the Modern Enterprise in the AI Era**

## New Network Imperatives

Resilient networking in this new era of AI means delivering:

**Peak Performance:** Peak data-movement performance matters because every digital service—from analytics to cloud workloads—now depends on rapid, reliable data flow. Slow movement creates system bottlenecks, drives up infrastructure costs and limits scalability.

**Secure Delivery:** Secure delivery is critical because threats move fast and data is constantly in motion. Ensuring every transfer is protected prevents breaches, maintains trust and keeps operations resilient and compliant.

**Agility:** Agility is vital because business needs shift constantly. Your network tomorrow will look very different than today. The ability to adapt quickly, deliver changes sooner and stay ahead in a rapidly evolving environment is critical to stay competitive.

**Insights:** When networking systems surface patterns quickly and accurately, turning data into clear, actionable understanding, leaders can make smarter decisions that drive efficiency, innovation and competitive advantage.

With RiOS 10-based network acceleration solutions for cloud, SaaS, edge and premise-based applications and services, you improve application performance and securely move the massive amount of data required in this new era of cloud computing and artificial intelligence. This ensures peak performance for every digital experience and AI application with a flexible licensing model you can self-manage, providing architectural freedom, license portability and improved TCO.

## Business Challenge

In response to the surging demand for rapid application performance and the proliferation of AI technologies, networks are once again emerging as a critical bottleneck in driving businesses forward.

To meet these demands, you will need a new way of working and thinking about data in order to extract greater value from your networks. You need resilient networking that can provide, performance, security, agility and insights.

Addressing these network constraints requires a revolutionary approach—an innovative mindset and a transformative method of connecting all your data with a network capable of overcoming this challenge.

Rising to this challenge, Riverbed introduces RiOS 10, a monumental advancement in resilient networking technologies to accelerate data.

Engineered to meet the rigorous networking demands of the AI era, RiOS 10 serves as the cornerstone software that powers all of Riverbed's cutting-edge SteelHead acceleration solutions.

Riverbed SteelHead ensures peak performance for every digital experience and AI application by securely delivering data at scale over every network, however challenging it may be.

# Key Benefits of RiOS 10

## Performance

Riverbed's latest SteelHead solutions, powered by RiOS 10, deliver major gains across data center, cloud and edge environments. RiOS 10 ensures fast, responsive applications and precise data delivery, boosting overall performance by up to 3× compared to earlier versions.

This translates up to 60 Gbps of data movement (6 Gbps optimized) on our flagship appliance, similar performance with SteelHead Virtual on comparable hardware and 20 Gbps of data movement (2 Gbps optimized) per instance on SteelHead Cloud.

With Keystone server, Riverbed becomes an integral part of your security infrastructure, with specific controls for security personnel. Using the same accepted security methods as firewalls and load balancers, this enables you to accelerate practically all encrypted traffic, which could substantially increase your acceleration footprint.

## Security

RiOS 10 provides leading security capabilities across the SteelHead portfolio, depending on the solution, which include:

- **Post-quantum Cryptography** to protect data transfers against future quantum-enabled threats.

- **Confidential Computing** ensures data remains encrypted not only in transit and at rest, but also during processing, protecting workloads running in multi-tenant cloud environments.

- **Total Memory Encryption** encrypts all data passing to and from the CPU, protecting sensitive information from physical attacks.

- **Secure Boot** verifies the integrity of firmware and software during boot, preventing unauthorized or malicious code from running.

- **Tamper Proof Modules** (TPMs) enhance security by securely managing cryptographic keys, verifying boot integrity and providing hardware-based security.

- **Enterprise-Grade Encrypted Delivery** provides end-to-end encryption for all data traversing hybrid and public cloud networks, designed to mitigate threats across distributed environments.

- **Secure High-Throughput Data** Transfer delivers secure high-bandwidth data transport (up to 60 Gbps) with built-in cryptographic enhancements.

- SteelHead Central Controller enables **secure policy management**, configuration and monitoring across all SteelHead Cloud instances, with recommended best-practice security hardening.

## Agility

Riverbed Flex, a subscription-based model decouples acceleration software licenses from hardware, delivering three critical business values:

- **Architectural Freedom:** Get dynamic license portability across your SteelHead Virtual, SteelHead Cloud and SteelHead Appliances.

- **Optimized ROI:** Right-size your acceleration needs with an OPEX approach, protecting investments and improving total cost of ownership.

- **Future-Proofing:** Access the latest acceleration capabilities, allowing your organization to scale and evolve with technological advancements.

## Actionable Insights

The SteelHead Data Insights Dashboard allows customers to gain valuable insights across their entire Riverbed SteelHead fleet, such as quantified performance gains and time saved, surfaces granular analytics and trends and identifies inefficiencies and optimizes workflows.

This enables you to make informed infrastructure decisions using actionable insights while maximizing the value of Riverbed's acceleration solutions.

## Move Fast: Secure, Accelerate and Future-Proof Your Riverbed Acceleration

With data volumes, security demands and AI-driven workloads all accelerating faster than legacy networks can keep up, updating to RiOS 10 ensures your enterprise can securely move and optimize data at the pace your business requires. Learn more at ( riverbed.com ) or ( contact us ).