riverbed

Revolutionizing Data Movement in the Era of AI

Discover the Unmatched Performance and Security of SteelHead Virtual

Riverbed SteelHead Virtual

SteelHead Virtual with the new RiOS 10 delivers enhanced performance, advanced security, scalability, improved data movement efficiency, resilient networking, and proven customer success.

The benefits of SteelHead Virtual make it a strategic investment for enterprises with a hypervisor or private cloud strategy. It optimizes network infrastructure and helps maintain a competitive edge in the AI-driven landscape.

Enhanced Performance

SteelHead Virtual with RiOS 10 delivers our fastest data movement yet on private clouds or virtualized hardware.

- Steelhead Virtual will accelerate up to 2 Gbps on the WAN. That is up to 20 Gbps of optimized data movement.
- SteelHead Virtual with RiOS 10 delivers 2x the performance on the comparable CPU vs. RiOS 9.

This leap in performance ensures faster data transfer and optimized WAN performance, which are crucial for handling the increasing data demands driven by AI and other modern applications.

Business Challenge

As an IT executive, you understand that moving data across networks presents several critical challenges:

- **Latency:** Slow data transfer rates severely impact application performance and, consequently, business outcomes. This leads to delays in accessing vital insights, reducing productivity and efficiency.

- **Security:** As data moves across the network, cyber risks increase, making sensitive information vulnerable to interception. This compromises the integrity and confidentiality of critical data.

- **Flexibility:** The rapid evolution of business needs and the advent of technologies such as AI and cloud computing have exposed the limitations of traditional networking infrastructures. This necessitates more flexible and scalable solutions.

Riverbed's innovative acceleration solutions, now enhanced with the new RiOS 10 software, address these challenges head-on, with high-performance, resilient networking that securely moves vast quantities of data with the agility required by modern enterprises.

Advanced Security

The movement of data, especially for AI applications, often involves the exposure of enterprise, government, or confidential information, sometimes for the first time.

SteelHead Virtual ensures secure data delivery with RiOS 10.1 support of post-quantum cryptography, securing data movement against quantum computing risks.

Upcoming RiOS 10 releases with have:

- Secure Boot to detect hardware tampering
- Trusted Platform Modules to secure master keys
- Confidential computing to safeguard data and code from unauthorized access

By helping ensure secure data delivery, SteelHead Virtual is a vital upgrade for existing customers in maintaining data integrity and compliance on virtualized infrastructure in a world of ever-increasing cyber threats.

Scalability and Flexibility

SteelHead Virtual is designed to be highly scalable and flexible, accommodating the dynamic needs of modern enterprises. With capabilities like Quality-of-Service and application classification at high rates, SteelHead Virtual can support evolving network architectures and increased data throughput requirements.

SteelHead Virtual supports support VMware ESXi 8 on RiOS 10.1 with planned support for addition hypervisors on RiOS 10.2.

Additionally, Riverbed Flex subscriptions enable customers to seamlessly move licenses from virtualized deployments to appliances and cloud environments. Existing SteelHead Virtual customers upgrading to Flex, as well as new customer deployments on Flex, get unprecedented flexibility and future-proofing capacity.

Improved Efficiency

SteelHead Virtual supports next-generation CPUs, utilizing new instruction sets and compression assistance capabilities. This enables efficient data movement at massive scale.

Riverbed Flex for Acceleration

Riverbed Flex innovative subscription-based Acceleration solutions provide a future-ready approach by decoupling Acceleration software licenses from hardware, offering seamless transitions between physical, virtual, and cloud-based deployments, and ensuring continuous software and hardware refreshes as part of the subscription.

The Riverbed Flex Acceleration Advantages

License Portability	Optimized ROI	Future Proof Capacity
• Move licenses anywhere	• Right-size licenses to needs	• Adapt and scale as your needs change
• Move licenses anytime	• Upgrade or replace hardware at lower cost	• Increase capacity on demand—no extra hardware purchases
• Move capacity across fleet	• No stranded assets	• Easily adopt new capabilities
• Add capacity as needed	• OPEX not CAPEX	
• Use burst capcacity		

SteelHead License Comparison

Feature	Flex Licenses RiOS 10	Perpetual License RiOS 9 and Earlier
Software Features		
RiOS upgrade	Yes, Evergreen	Within major release (dot releases only)
Easily adopt future capabilities	Yes	Limited to new dot release features
Performance tier	Flexible	Fixed
License Mobility		
Move licenses	Yes	No
Scale licenses up and down	Yes	No
Move licenses anytime	Yes	No
Move capacity across fleet	Yes	No
Use Burst Capacity	Yes	No
Increase capacity on demand with existing hardware	Yes	No
Financial Considerations		
Payment structure	Subscription	Up front + maintenance
Expense method	OPEX	CAPEX
Lower cost upgrades	Yes	No
No stranded assets	Yes	No

SteelHead Virtual Specifications

Perpetual or Subscription Models RiOS 9.x

Model	VCX-30	VCX-40	VCX-50	VCX-60	VCX-70	VCX-80	VCX-90	VCX-100	VCX-110
Optimized WAN Capacity	10 Mbps	25 Mbps	50 Mbps	100 Mbps	200 Mbps	500 Mbps	1,000 Mbps	2.5 Gbps	5 Gbps
Optimized TCP and UDP Flows	500	1,000	2,000	5,000	12,000	50,000	100,000	150,000	180,000
Network Services	50 Mbps	100 Mbps	250 Mbps	500 Mbps	Unrestricted				
Disk Capacity Advised	120 GB	176 GB	438 GB		870 GB	1,686 GB	2,358 GB	3,760 GB	5,100 GB
Max Data Store Capacity	100 GB	150 GB	400 GB		800 GB	1,600 GB	2,240 GB	3,600 GB	4,800 GB
Management Disk	38 GB	44 GB	56 GB		88 GB	104 GB	136 GB	178 GB	318 GB
Maximum Web Proxy	400 GB		800 GB						
Virtual CPUs Required (min)	2	4			6	12	24	32	44
Reserved Memory Required	4 GB		8 GB		24 GB	38 GB	64 GB	80 GB	128 GB

Model Specifications Release RiOS 10.x

Model	FLEX-50	FLEX-200	FLEX-2000
Optimized WAN Capacity	50 Mbps	200 Mbps	3 Gbps
Optimized TCP Connections	2,000	12,000	150,000
Disk Capacity Advised	438 GB	870 GB	3,760 GB
Max Data Store Capacity	400 GB	800 GB	3,600 GB
Management Disk	80 GB	80 GB	80 GB
Virtual CPUs Required (min)	4	6	32
Reserved Memory Required	8 GB	24 GB	80 GB

Feature-tier licensing is available with RiOS version 9.9.3 and RiOS versions 9.10.1 and later. Virtual SteelHead must run RiOS version 9.9.3 or RiOS version 9.10.1 or later on a supported guest hypervisor. See Riverbed virtual products documentation for compatible hypervisors.

For information on the SteelCentral Controller for SteelHead, see the documentation for that product under the Documentation tab here: SteelHead Central Controller.

For NIC card support, see the documentation for Riverbed hardware platforms under the Documentation tab here: https://support.riverbed.com/content/support/software/steelhead/cx-appliance.html.

NOTE: All WAN capacity / bandwidth, TCP connections and UDP flows, and QoS specifications listed are maximums and may not be achieved in all environments. The WAN capacity limit is enforced on outbound optimized traffic. Inbound optimized WAN traffic is not capped.

Unleash Unmatched Performance, Security and Agility

With SteelHead Virtual

Experience up to two times faster data transfer, robust protection against emerging cyber threats, and flexible deployment options with SteelHead Virtual and RiOS 10. Designed to meet the increasing data demands of AI and modern applications, SteelHead Virtual ensures your network remains agile and efficient. Additionally, you can future-proof your infrastructure with Riverbed Flex subscription options and advanced network security features like post-quantum cryptography support. The need to stay ahead in the AI era and optimize your network has never been greater. Riverbed is here to help.

For more information, contact us or your authorized Riverbed representative, or find us at riverbed.com.

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.