

SteelHead SD

Visibility, Performance and Agility for the Cloud Era

SteelHead SD combines the power of industry-leading WAN optimization with innovative SD-WAN and Cloud Networking capabilities within a streamlined single-appliance. The solution delivers IT speed, scalability, simplicity and cost savings

It allows organizations to take a radically new approach to networking and build performance-centric operations that efficiently deliver the network agility and performance required to support today's businesses. SteelHead SD unifies industry leading optimization, network connectivity and orchestration of application delivery across hybrid WANs, remote LANs and cloud networks with comprehensive end-to-end application, network and end-user visibility.

SteelHead SD provides the ability to quickly and easily provision new branch sites, deploy applications remotely and automatically optimize applications to ensure optimal performance. It provides the greatest bandwidth savings and latency acceleration for cloud, SaaS and the latest generations of secure application protocols.

SD-WAN capabilities include several differentiators—ubiquitous and unified connectivity across LAN, WAN and the Cloud; business aligned orchestration for fast, agile,

and secure application delivery; and unique cloud-centric workflow, easy menu-driven network design of sites, zones, uplinks, and rules and centralized, business intent-based policy management—all within a simple graphical user interface—for ease of use and greater business agility.

The solution provides comprehensive visibility, performance and agility that organizations need to cost effectively manage today's complex enterprise for optimal business productivity.

The Business Challenge

Businesses are increasingly reliant upon applications so business performance now equals IT performance. Meanwhile, IT is under continued pressure to deliver the highest level of performance, within a budget, in a complex and evolving hybrid network. The sheer volume of applications in use has grown along with other complexities; modern applications are encrypted, making it difficult to identify, classify, and treat them with appropriate priority.

Applications continue to transition to the cloud—public, private, SaaS—making the hybrid cloud a permanent part of the enterprise. Organizations also leverage combinations of hybrid networks (MPLS, Internet VPN, and public Internet) and must balance bandwidth for application performance while also ensuring secure access. These complexities challenge IT and put application performance at risk, resulting in a loss of business productivity.

IT must be able to meet new and ongoing business needs quickly, cost-effectively, and without any compromise to security and performance.

Multi-vendor approaches to combining WAN optimization and SD-WAN network services naturally compromise end-to-end application-centricity as packets flow between WAN optimization and SD-WAN functions. Riverbed SD-WAN and WAN Optimization services seamlessly

integrate to maintain the identification and classification of applications end-to-end, enabling application-centric visibility and control across your hybrid WANs, Cloud (SaaS, IaaS) Networks, and Branch LAN/WLANs.

Key Benefits

Converged Solution

- Single appliance unifying WAN optimization and SD-WAN functionality
- Independent virtual services, with upgrade independence
- Flexibility to enable or disable SD WAN capabilities with a simple software toggle

Agility

- Quickly respond to the needs of your business with application-defined, business intent-based policies that are centrally managed and applied network-wide across all remote locations
- Zero touch provisioning and rapid change management

Network Efficiency

- Reduced bandwidth utilization by up to 95%
- Optimization and application acceleration in every type of cloud environment
- Automatic identification and classification of over 1,300 applications

Operational Efficiency

- Centralized, business-intent-based global policy management
- More resilient, highly available WAN with full, dynamic use of multiple links at branches
- Secure application delivery across the hybrid enterprise through secure network services and integrated firewall capabilities
- Automated cloud networking and performance with single-click cloud deployment

Business Productivity

- Improved application performance and data transfer up to 100X
- Ensured end-user experience with comprehensive application, network and end user device monitoring
- Unique application-centric policies for agile enforcement of security and performance

Key Features

Industry Leading Optimization

- Reduced data redundancy and latency through data, application and transport streamlining, and SaaS and cloud intelligence
- Reduced internet traffic with a fully embedded, transparent HTTP(S) proxy for local connection termination and Web object caching, including video

Dynamic Path Selection

- Path Quality Monitoring - provides visibility into the quality of each path in the overlay network including virtual paths, like QoS traffic classes, and reports on exceptions
- Quality-based Path Selection—defines the application's path and can make path decisions to maximize application service needs, including link status, packet loss, latency and jitter
- Simple to deploy—without complex and tightly coupled router configurations—a single global policy maps applications to the appropriate paths across SD-WAN and hybrid networks
- Dynamically reroutes applications to ensure no impact to users in the event of a performance issue

Dynamic Native Routing

- Coexist with branch (customer edge) routers or replace the router with SteelHead native routing, thus eliminating time spent manually coding CLI for the legacy router configuration
- WAN—side routing—eBGP (path vector) protocol, followed by OSPF—to deal with MPLS complexity and LAN side routing OSPF, followed by iBGP for reducing branch routing complexity
- Eliminate network complexity with its design-first approach and centralized, policy-based management

Comprehensive Visibility

- Deep Packet Inspection (DPI) provides unique visibility into more than 1,300 applications, more than any other vendor, allowing visibility beyond SSL, and into differentiated individual applications within Microsoft Office 365 or Lync, for example
- Applications with similar business intent are organized into logical groups for easier reporting, troubleshooting and configuration of network policies to streamline management
- Complete end to end network performance (NPM), application performance monitoring (APM) and end-user device monitoring facilitates problem resolution for optimal application performance

SteelHead SD Product Components

With SteelHead SD, Riverbed introduces a converged solution, to design and operate the network for maximum performance.

The SteelHead SD solution consists of the following:

- **SteelHead SD Appliance.** Optimized network performance with patented data, transport, and application streamlining. Acceleration for a wide variety of critical enterprise apps ranging from email, file sharing, collaborative applications, Intranet portals, Web apps, Line-of-business apps, as well as ERP, CRM and database software as well as streaming video and VOD.

Secure WAN gateway that provides unified connectivity (point-to-point and full-mesh) and enforcement of global policy across on-premises and cloud-network environments, zero-touch provisioning, automated VPN management and next generation firewall and threat protection capabilities.

- **SteelConnect Manager.** A centralized and multi-tenant management portal that provides intuitive and simplified workflow for designing, deploying and managing distributed hybrid networks.

Optional Additions

- **SteelConnect Gateway.** Physical and virtual secure WAN gateway for unified connectivity, without optimization.
- **SteelConnect Switches and Access Points.** A line of remote LAN switches and Wi-Fi access points that support zero-touch provisioning, automate global enforcement of access control policies and provide complete visibility into connected users and devices.
- **SteelHead Interceptor.** Amplifies the solution with enterprise scalability, load-balancing intelligence, and high availability to manage and scale network-wide throughput.

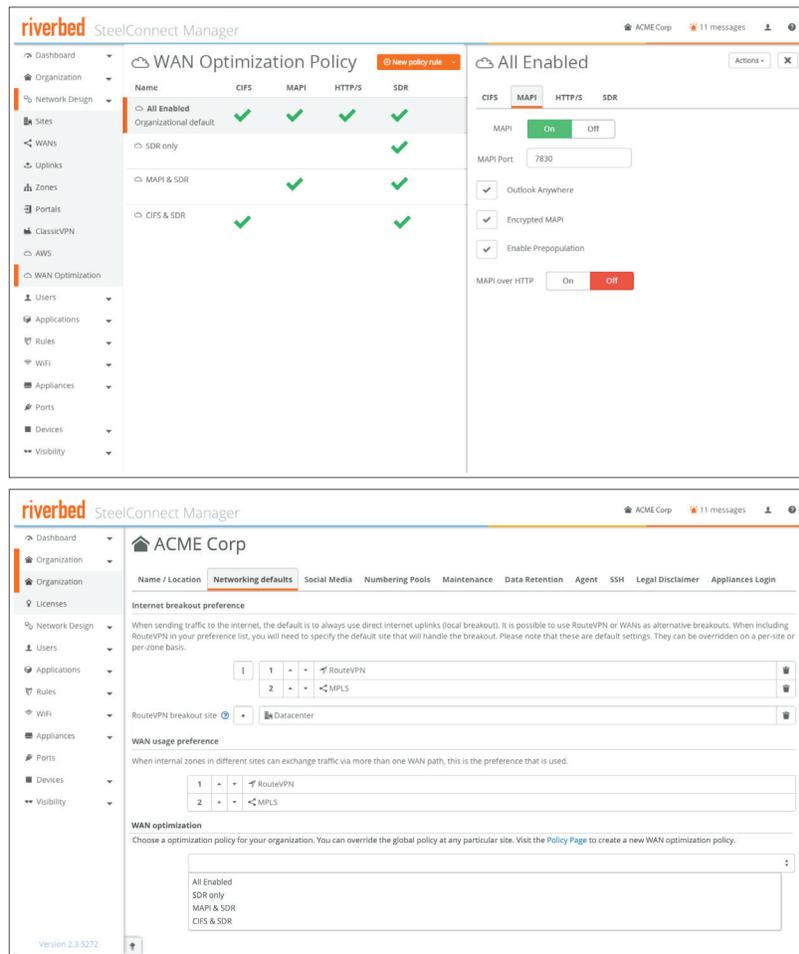


Figure 1 Unified network connectivity, orchestration and WAN optimization and intuitive, cloud-centric workflow.

About Riverbed

Riverbed Technology, the leader in application performance infrastructure, provides the most complete platform for the hybrid enterprise to ensure applications perform as expected, data is always available when needed, and performance issues can be proactively detected and resolved before impacting business performance. Learn more at riverbed.com/steelhead.

