

Security Solution Brief

Branch Office Security on Riverbed Services Platform

Server consolidation, one of the top IT initiatives, is driven by the need to save money on hardware and software licensing, thereby minimizing IT overhead at the branch office. However, the move to server consolidation, is not without concerns. The branch office relies on the wide area network (WAN) for its day-to-day operations and needs protection from various threats such as unwanted traffic, malware, and worms. These kinds of security breaches and network performance issues can interrupt day-to-day operations at the branch, reducing employee productivity and compromising data integrity.

To solve these challenges, Riverbed® has partnered with the industry leaders in security to deliver a solution for branch office security and deliver security features like enterprise firewall, Web security, VPN and IDS/IPS. These partners can co-exist on a Riverbed Services Platform (RSP) and deliver a truly integrated “best-of-breed” solution. Enterprises can now choose the security vendor and application that best fulfills their security needs.

Key features offered on the Riverbed Services Platform include:

- **Web Security**

- Web security provides real-time Web 2.0 content control and security scanning using analytics, including antivirus, Web antivirus, Web reputation, and behavioral analysis, to detect and block dynamic threats, and to prevent infection and data loss. This solution provides the accuracy and granularity required to manage and secure organizations for Web 2.0, and extending Web usage policies to unknown and dynamic sites in real-time.

- **Enterprise Firewall**

- The firewall solution offers unprecedented levels of threat protection with advanced capabilities, such as reputation-based global intelligence, configurable application-level protection, encrypted traffic inspection, intrusion prevention, anti-virus, and content filtering that block attacks before they occur. This solution offering will help companies protect and safeguard networks at remote and branch offices through a unique virtualized environment.

- **IDS/IPS**

- The intrusion detection and prevention system (IDS/IPS) helps organizations secure their enterprise network, and protect servers and critical data against worms, automated malware, zero-day, denial-of-service (DoS), and distributed denial-of-service (DDoS).

riverbed Think fast.®
RSP

BENEFITS

- Industry leading WAN optimization and best of breed branch office security in one appliance.
- Cost savings by consolidating servers and IT management footprint, and conserving power, at the branch
- Easy to use integrated solution that protects the branch office from various threats while delivering enterprise class security.

- **VPN**

- The VPN offering provides secure connectivity to corporate networks, remote and mobile users, branch offices and business partners. This integrates access control, authentication and encryption to guarantee the security of network connections over the public Internet.

In addition, Riverbed Steelhead® appliances have out-of-the-box security features like accelerating encrypted traffic, appliance-to-appliance encryption, MAPI and datastore encryption.

- **Accelerating Encrypted Traffic**

Riverbed Steelhead appliances can accelerate SSL WAN traffic to deliver LAN-like performance. Riverbed is the first WAN optimization vendor to introduce true SSL acceleration. The seamless integration, allows customers to securely accelerate SSL encrypted traffic without scattering digital certifications and private keys around the enterprise. In addition, The Riverbed Optimization System's (RiOS®) SSL capability works alongside existing SSL offload or load-balancing devices. These optimizations are bi-directional ensuring that all traffic is encrypted end-to-end from client to server, to or from branch offices.

- **Appliance-to-Appliance Encryption**

Riverbed Steelhead appliances have an optional SSL capability to encrypt the inner-channel communications between them to secure other data traversing the WAN that is not otherwise protected. Turning this feature on ensures that the references and underlying data shared between two sites are encrypted before they leave the Steelhead appliances. Steelhead appliances support encryption of the data store via AES to protect the data at-rest. Steelhead appliances have a unified trust model offering strong authentication to determine which should be allowed peer connectivity. This can be based on both self-signed certificates and well known certificate authorities.

- **Encrypted MAPI**

The RiOS platform has the ability to deliver acceleration for Exchange 2010, 2007 and 2003 even when encryption on the Exchange server is enabled. This feature allows Steelhead appliances to operate in secure customer environments where email encryption is used (often by default) between the client and host servers. With this feature the server-side Steelhead can intercept encrypted Outlook sessions and securely perform optimization on the underlying Exchange data, before re-encrypting the traffic using IPSec as it is transmitted over the WAN.

- **Data Store Encryption**

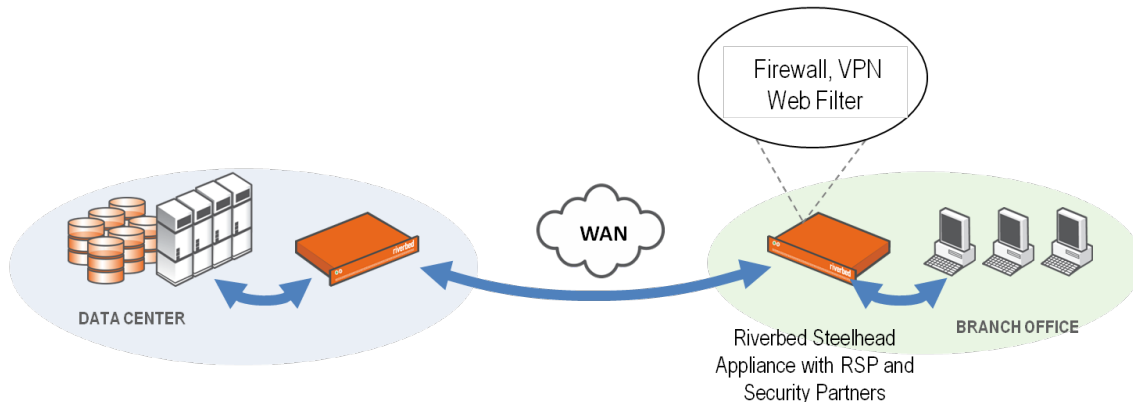
The Riverbed Optimization System also provides encryption capability for the data stored on disk in Steelhead appliances for organizations that require high levels of security or face stringent compliance requirements. Encryption standards supported include AES-128, AES-192, and AES-256 and keys are maintained in an encrypted key vault.

The Riverbed Services Platform

The RSP provides a protected partition that lets customers run additional services and applications on Steelhead appliances. The ability to run best-of-breed software on Steelhead appliances enables an additional layer of server consolidation by eliminating the requirement for dedicated servers in remote branch offices. The RSP enables customers to simplify their operations in branch offices by running "local" applications like DNS/DHCP, print, and security directly on the Steelhead appliance. RSP is built on top of VMware which helps us deliver this virtualization, reducing costs and complexity in the branches.

The Riverbed solution, while optimizing the traffic that is going over the WAN, also ensures the integrity of the data. Data integrity across the WAN is ensured by TCP checksums, just as for conventional network traffic when Steelhead appliances are not in place. In addition, Steelhead appliances apply their own internal checksums to the encoded data.

With these partnerships, Riverbed provides the most complete end-to-end solution for secure WAN Optimization for enterprises from the data center to the edge.



Riverbed has also partnered with the following security vendors to offer its best of breed security solution:



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About Riverbed

Riverbed is the IT infrastructure performance company for networks, applications and storage. Our award-winning line of wide area network (WAN) optimization solutions liberate businesses from common IT constraints by increasing application performance, enabling consolidation, and providing enterprise-wide network and application visibility — all while eliminating the need to increase bandwidth, storage or servers. Thousands of companies with distributed operations trust Riverbed to make their IT infrastructure faster, less expensive and more responsive. **For more information, visit <http://www.riverbed.com>**