

DATA SHEET: Riverbed Steelhead® Appliances

Companies of all sizes depend on Riverbed Steelhead appliances to accelerate the performance of applications over wide area networks.

Steelhead appliances deliver the highest performance, most scalable wide-area data services solution available, overcoming both bandwidth and latency problems simultaneously.

With Steelhead appliances, data moves faster, applications perform seamlessly, and IT managers can deploy a simpler, more effective, more secure network infrastructure. The possibilities are endless.

Leading-Edge Performance for Wide Area Data Services

Steelhead appliances have dramatically changed expectations when it comes to application performance over the WAN.

With Steelhead appliances, IT departments can meet the expectations of the most demanding users while still achieving their own strategic objectives. Enterprises can now provide LAN-like performance to users anywhere in the world – while consolidating previously distributed servers and storage, reducing remote backup infrastructure, and even cutting bandwidth expenses.



Key Benefits

Acceleration of all applications. Riverbed® Steelhead appliances deliver dramatic performance increases across the Wide Area Network (WAN) for all TCP applications, by 5 to 50 times, or as much as 100 times. Distributed teams can collaborate more effectively by getting updated files and emails in seconds instead of minutes or hours. SSL support accelerates all secure business applications without breaking the preferred trust model. QoS functionality enables additional optimizations for UDP applications such as VoIP and video, and all TCP-based applications as well.

Consolidation of IT infrastructure. Steelhead appliances enable the consolidation of file servers, Exchange servers, storage, application servers, and tape backup systems from remote branches into data centers, without giving up the performance users need.

Reduced bandwidth utilization. Steelhead appliances enable massive reductions in bandwidth utilization. Customers typically eliminate 60% to 95% of their current utilization after deploying Steelhead appliances.

Accelerated, simplified backup and replication. With Steelhead appliances, secure backups over the WAN can take minutes instead of hours, enabling shorter backup windows and the ability to eliminate remote backup infrastructure such as tape backup equipment and dedicated backup servers.

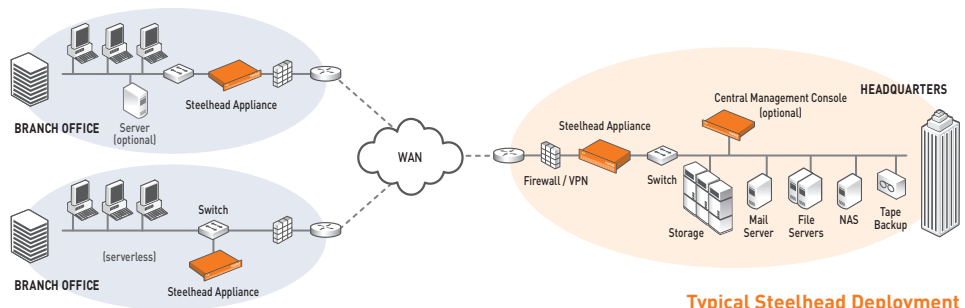
The Riverbed Optimization System (RiOS™)

RiOS software powers Steelhead appliances. RiOS combines patent-pending data reduction, TCP optimization, application-level latency optimizations, and remote office file and management functionality. Together, these technologies provide a comprehensive solution for enterprise wide-area data services. RiOS consists of four key components:

- **Data Streamlining** – RiOS Data Streamlining works across all TCP applications to reduce bandwidth consumption, typically by 60% to 95%. Data Streamlining works across file sharing (including Windows and NFS), email (including MS Exchange and Lotus Notes), CAD, ERP, Web-based HTTP and HTTPS applications, databases, and all other applications that use TCP. Data Streamlining also provides QoS for bandwidth prioritization, enabling additional performance benefits for all TCP and UDP applications.
- **Transport Streamlining** – RiOS Transport Streamlining reduces the number of TCP packets required to transfer data by 65% to 98%. Transport Streamlining enables the end-to-end acceleration of SSL-encrypted traffic throughout the enterprise. RiOS Transport Streamlining also enables greater utilization of high bandwidth, high latency connections – even in the face of packet loss – with HS-TCP and MX-TCP capabilities.
- **Application Streamlining** – RiOS Application Streamlining provides additional order-of-magnitude application performance improvements by reducing application protocol chattiness up to 98% and minimizing application overhead. By doing so, RiOS can provide massive throughput increases to applications including file sharing (CIFS and NFS), Exchange (MAPI), Web (HTTP and HTTPS), and database (MS-SQL). RiOS also includes additional features for disconnected operations and data pre-population.



WAN Optimization – Riverbed RiOS 3.0



Typical Steelhead Deployment

