



WAN OPTIMISATION APPLIANCE

Riverbed Steelhead 1010

PRICE £5,950 exc VAT

BASIC WARRANTY 1yr RTB

SUPPLIER Riverbed Technology

INTERNET www.riverbed.com

VERDICT A versatile and effective WAN optimisation appliance that's easy to install and manage, offers good reporting tools and is a lot better value than many point solutions.

The Steelhead's caching and optimisation can have a dramatic effect on the performance of your WAN link.



Throwing more bandwidth at underperforming WAN links is all too often an expensive mistake, as in most cases it's the latency, or round-trip time, that's at the heart of the problem. In an effort to deal with this, many enterprises have implemented distributed data services, which solve some performance issues but can actually create more problems by being extremely difficult to manage.

Optimising a WAN link makes more sense, although there are a lot of point solutions currently on the market. Riverbed's Steelhead appliances stand out by offering a smart solution that covers all areas of WAN optimisation, including wide area file services, compression, traffic shaping, QoS, caching and application acceleration. Called WDS (wide-area data services), the Steelheads function as transparent TCP proxies, which intercept and optimise all TCP traffic and use a couple of key proprietary technologies to achieve this. The first is Riverbed's SDR (scaleable data referencing), which stores all WAN traffic on the appliance's hard disk and uses proprietary algorithms to remove all repetitive transfers. Any traffic that's already passed over the WAN won't be retransmitted and the data stored on the appliance can be used by any application. The second technology is transaction prediction (TP). This is an application protocol-specific solution aimed at reducing round trips over the WAN. Riverbed offers modules for applications such as Windows, MAPI and MS-SQL.

The Steelhead 1010 on review is aimed at optimising E1 WAN connections servicing between 50 and 200 users. The appliances are simply placed at each end of the link, where they'll automatically optimise all traffic by default. Management is well catered for from a simple web browser interface, which provides access to good reporting facilities. If you wish, you can customise optimisation by adding your own traffic rules to determine how specific source and destination subnets and port numbers are handled.

For testing, we used a Network Nightmare WAN simulator (www.networknightmare.com) configured for a 2Mb/sec E1 WAN link with a 40ms latency. We placed a Steelhead on each side and at one end added a Windows Storage Server 2003 system configured with IIS and FTP services plus Ipswitch's iMail Server 8. At the other end, we connected a Windows Storage Server 2003 system to act as a client and used a

4.2MB PowerPoint presentation to test a variety of scenarios. With optimisation turned off, remotely opening the file at the client took 18 seconds and saving a small modification to the server took 43 seconds. With the Steelheads in action and the file cached, these times were reduced to only 3.5 and 4.5 seconds respectively.

Mailing the file as an attachment from the client to the server with no optimisation took 54 seconds, while receiving the same file to the client took 42 seconds. With the file cached, the Steelheads reduced these times to only 17 seconds and three seconds. Simple file copy operations also saw significant improvements, with the presentation copied from client to server and back again in 60 seconds and 28 seconds respectively, but only 2 seconds and 1.5 seconds with optimisation activated and the file cached.

Our test results show clearly what dramatic improvements the Steelheads can make to WAN performance. Not only that, but they compare extremely well on price with most point solutions and are easy to install and configure.

DAVE MITCHELL

PC PRO RATINGS

PERFORMANCE	★★★★★
FEATURES & DESIGN	★★★★★
VALUE FOR MONEY	★★★★★
OVERALL	★★★★★

SPECIFICATIONS 1U rack chassis; 2.2GHz Intel Celeron; 1.5GB PC2100 ECC SDRAM; 200GB Western Digital WD2000JB IDE hard disk; 2 x Intel Gigabit Ethernet (embedded); bypass card with 2 x Intel Gigabit Ethernet; Red Hat Linux kernel; web browser management interface.

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