

## IN BRIEF

### Industry

- » Information Technology Vendor

### Challenges

- » Enable replication for DR between data centers spanning North America
- » Keep up with extreme volumes of data to be protected
- » Integrate natively with 10 Gb Ethernet network connections

### Solution

- » Deploy Steelhead 7050-L appliances to data centers to improve SnapMirror performance

### Result

- » Average 4:1 data reduction for WAN traffic
- » Peak throughput of 2 Gbps, with an average of 1.4 Gbps
- » Avoided having to upgrade network bandwidth



# Riverbed® Steelhead® 7050 Appliances Solve Replication Challenges for Leading IT Vendor

## Company Profile

This IT vendor has R&D, manufacturing, sales, support, and other operations in more than 100 offices around the world. They develop, build, and sell a wide range of hardware products used by small and medium businesses up through some of the largest global enterprises and a variety of government customers. Generating several billion dollars in annual revenue, they are a major technology player with industry leading solutions for common IT infrastructure requirements.

## Challenge: Increasing Preparedness for Disaster Recovery While Controlling Costs

As their business continues to execute and expand, their own IT infrastructure faces increasing demands to support their growing operations, but due to uncertainty about the economic situation worldwide their IT expenditures are held to close scrutiny as they try to control costs. Due to these conflicting pressures, risk mitigation had begun to be a serious challenge, as data protection for ever increasing volumes of data became correspondingly more expensive for both the required hardware and network. Worse, adding more storage space and WAN bandwidth still wasn't going to meet the needed sustained throughput to replicate all their data between data centers frequently enough to meet their service level agreements (SLAs.)

## IT Environment: NetApp Storage Arrays with SnapMirror Replication

They rely on a range of NetApp arrays and filers for storage of all their data, from mission critical operational information to test and development systems to users' email and file shares. For disaster recovery purposes, they wanted to replicate everything between primary and secondary data centers, located on opposite coasts of the US. NetApp SnapMirror replication utility was the obvious choice for their environment, reliably managing the data transfer between storage arrays across the WAN. As they tried to keep up with growth while keeping costs down, they considered using NetApp's compression and deduplication capabilities to reduce the WAN traffic and quantity of data on disk. However, they rejected this as they didn't want to put additional processing load on the storage arrays. A possible upgrade of the WAN bandwidth was also considered, but they wanted to avoid the ongoing operational expense associated with this, and even increasing the bandwidth of their two current 600 Mbps circuits wouldn't address the high network latency that was slowing down replication jobs.

## Solution: Steelhead 7050 Appliances Proven as the Fastest and Most Cost Effective Answer

They decided to evaluate a variety of WAN optimization products including Steelhead appliances from Riverbed, along side Silver Peak's best offerings. Simple performance testing was a major component of the evaluation, as they needed to replicate at speeds of up to 1.5 Gbps today and expected this number to increase to 3 Gbps within the next year. Beyond that, they evaluated each companies' broader product offerings, manageability of the solutions, international support quality, and of course, pricing.

In their initial evaluation testing they tried Silver Peak's NX-8000 series WAN optimization appliances, but they found these weren't able to scale to meet the workload. In their second round of testing, they tried Silver Peak's NX-9000 series and found that these might be a possibility but were still too expensive for their budget. Then Riverbed introduced their newest model, the Steelhead 7050. Built on solid state drives (SSDs), having up to four 10 Gb network interfaces (NICs), and with a number of technology advantages in the DR feature set of the Riverbed Optimization System (RiOS) software and appliance hardware, the Steelhead 7050-L finally hit the mark, cost effectively delivering an average of 1.4 Gbps throughput and up to 2 Gbps during peak replication activity, and showing an average data reduction ratio of 4:1 at the same time. Even better, the high availability capabilities of the Steelheads would help them reliably deliver this performance for uninterrupted data protection operations. Despite Silver Peak's niche focus on data center DR, Riverbed simply outperformed their biggest products, and at a better price.

### Benefits: Increased DR Capabilities and Future Proofing Scalability

In looking at the other decision factors, Riverbed was the clear choice with the stability of being the market share leader, while at the time Silver Peak was a distant number 8 according to a well recognized industry analyst. They also knew they were joining many other customers in using Riverbed for optimizing NetApp SnapMirror replication, so it was a tried and true approach. Riverbed also has award winning technical support and parts depots worldwide, along with a much broader and deeper product range, all of which could be very important as the customer considers future WAN optimization projects for all their branch offices.

As result, the customer now has a scalable WAN optimization solution with Riverbed, meeting their current and projected data replication requirements, a huge value as they are now able to efficiently mitigate their risk in the case of a site disaster. The IT staff can easily manage the solution, and focus their efforts on strategically addressing other issues now that the DR problem was solved.

### About Riverbed

Riverbed Technology is the IT performance company. The Riverbed family of wide area network (WAN) optimization solutions liberates 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 use Riverbed to make their IT infrastructure faster, less expensive and more responsive. Additional information about Riverbed (NASDAQ: RVBD) is available at [www.riverbed.com](http://www.riverbed.com).



2005, 2006, 2007, 2008, 2009



### SUMMARY

An industry leading information technology vendor was experiencing difficulty scaling up their replication capabilities for disaster recovery between data centers on opposite coasts of the United States. Their NetApp storage arrays had built in compression and deduplication, but these features alone weren't enough to meet the extreme requirements of the SnapMirror workload on the wide area network (WAN.) Limited bandwidth and high latency were constraining their ability to protect data in the volumes and frequency required to meet their recovery point objective (RPO) targets, causing possible exposure to critical data loss in the event of a disaster. After they deployed Riverbed Steelhead 7050-L appliances to optimize the replication, they were able to successfully mitigate this risk and meet their throughput requirements, without upgrading the WAN, and still have extra capacity for planned future growth.

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