

IN BRIEF

Industry

- » Professional Services
(Environmental Consulting)

Challenges

- » Enable employees with different specialties to collaborate from different offices
- » Allow IT to keep pace with strategic acquisitions and staff growth
- » Provide faster file replication capabilities
- » Control bandwidth costs

Solution

- » A Steelhead appliance was deployed in each of 15 offices

Benefits

- » Real-time collaboration on files becomes a reality
- » Significant reduction in data replication times — in some instances it was cut from 2 hours down to 10 minutes
- » Simplified, accelerated WAN and Storage infrastructure
- » Seeing virtually 155 Mbps throughput on a 3 Mbps link



GeoEngineers

Riverbed® Steelhead® Appliances and Equallogic Enable Accelerated, Simplified Replication

GeoEngineers, Inc., (www.GeoEngineers.com) offers an integrated suite of services for companies looking to build communities, harness and manage the earth's resources, and move both products and people. The company operates at the intersection of earth science and technology, and calls on expertise in both disciplines to deliver results for clients. Since its founding in 1980, GeoEngineers has successfully completed more than 25,000 projects worldwide for clients in the Energy, Transportation, Water & Natural Resources, Development, and Federal markets. Today GeoEngineers, Inc. has hundreds of experts working locally and across the globe from 15 offices.

Challenge: Enabling Collaboration for Specialists in Different Offices

GeoEngineers, Inc., faced the challenge of enabling their workforce to effectively collaborate over the WAN. "Our employees are very specialized," noted Courtenay Bernier, Information Technology Manager. "As a result, we have to enable employees to be able to work in real time over the WAN. Our workforce uses a range of applications from CAD, GIS, and Microsoft Office applications, to Exchange Email, SharePoint, and Microsoft CRM".

"But IT faced the challenge to make sure that employees were getting the performance that they need across this broad range of applications. Our staff often has to work on very large files — hundreds of megabytes — and it is not easy to share those across the WAN. It might take us 2 hours to transfer a typical 720 MB file from one office to another. This amount of time would make it challenging to our employees

to stay productive. In fact, we had even instituted guidelines on file transfers for employees to ease some of the performance issues."

"We did extensive testing — the Steelhead appliance proved itself in our live environment."

Bernier continued, "We were also replicating our files from our branch offices to HQ using Microsoft DFS, and we were replicating back to

our EqualLogic iSCSI SAN. The SAN provided us with cost effective, easy to manage centralized storage, and DFS was a simple way to perform replication. The challenge, however, was optimizing DFS over the WAN."

Solution: Steelhead Appliances Overcome Network Limitations

Bernier looked into WAN optimization to solve the challenge of slow replication over the WAN. "We considered the F5 product and the Riverbed Steelhead appliance as well as a few others; however the Steelhead appliance really worked for us. We did extensive testing and the Steelhead appliance really proved itself in our live environment. Working with our reseller, we were able to provision three evaluation devices and integrate them quickly in our network ourselves".

"Our replication times have been cut from hours to just minutes or seconds."

"The results were pretty impressive. That 720 MB transfer was cut from 2 hours to 10 minutes on the first transfer. Subsequent edits to the file and retransfers were reduced to just 5 seconds. With that type of speed, I knew that our staff would be able to collaborate in real time."

"At the same time, the Steelhead appliance was optimizing our bandwidth. In fact, although we only had a 3 Mbps connection in our data center, the Steelhead appliance was enabling us to get up to a virtual 155 Mbps," continued Bernier, "On average we see a 3.4x to 4x increase in our WAN capacity with no additional investment in actual physical capacity."

Bernier also discussed the actual deployment of the Steelhead appliances. "Similar to the use of our EqualLogic SAN, we found the Steelhead appliance really easy to deploy. Unlike other technologies that require significant changes to existing network infrastructures, the Steelhead appliance fits in transparently. We didn't have to make any changes to our routers, switches, servers, or clients. The technology just works."

Benefits: Better Collaboration, Simplified Replication

Bernier discussed the new solution GeoEngineers had put in place. "The combination of Riverbed and EqualLogic has provided the perfect solution for us. We get accelerated replication over the WAN — to the point where our employees can share files and collaborate in real time. That means employees can work across offices — across the globe — on projects together. They can leverage the right skills for the right job, no matter where someone is located. We reduced the need to send personnel to other offices to complete projects, which incurs significant travel costs and can be disruptive to productivity. Now we can simply move the work instead of moving the people."

"The ROI was obvious to executive management, and payback was just a matter of months."

"In addition to the collaboration aspect of using Steelhead appliances, we have seen incredible benefits for our replication processes of remote servers back to our EqualLogic SAN. Hours of

transfer times have been cut to just minutes or seconds. We eliminated the need to add additional servers as the company grows; our SAN grows with us and Riverbed continues to optimize and accelerate network traffic. The complete solution scales very well."

Return on Investment

Bernier knew that, while the collaboration benefits of this WAN optimization solution were obvious, it would be easier to justify the purchase based on hard ROI. "We looked at the throughput that Steelhead appliance was giving us above the max bandwidth we were purchasing. We estimated to buy that much bandwidth; we would have to spend over \$400,000 annually. Instead, we had a one-time spend of about 25% of that on Steelhead appliances plus ongoing maintenance. The ROI was obvious to executive management and payback was just a matter of months."

Future Plans

Looking into the future Courtenay knew that there would be changes to their application infrastructure. "For example, we know that we're going to be transitioning to Microsoft SharePoint as a collaboration management tool." Courtenay was excited to be able to utilize his Steelhead with these new projects. "Because Steelhead appliances accelerate a broad range of applications, we know that we will see dramatically accelerated SharePoint performance. With Steelhead appliances, we won't have to have multiple SharePoint servers either."

About Riverbed

Riverbed Technology is the IT infrastructure 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



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SUMMARY

GeoEngineers needed to enable their employees to collaborate in real-time across the WAN. At the same time, the company wanted to accelerate its file replication back to headquarters.

After reviewing competitive products and doing extensive testing, GeoEngineers developed a solution combining the Riverbed Steelhead appliance and the EqualLogic iSCSI SAN.

With Steelhead appliances, GeoEngineers can guarantee accelerated access to files at any office location. At the same time, replication is accelerated back to an easy to manage, scalable SAN.