

CASE STUDY

Optimizing WAN Operations to Grow the Business: The ROI for GeoEngineers with Riverbed Technology's Wide-Area Data Services

Sponsored by: Riverbed Technology

Randy Perry

Eric Hatcher

August 2007

Background

GeoEngineers is an architectural and design firm founded in 1980. The company has 16 offices globally with 300 employees. GeoEngineers earned \$36 million in revenue in 2006, achieving more than 10% revenue growth over 2005, while serving clients primarily in the energy, government, transportation, and natural resources industries. It combines environmental and technology consulting with specialties in ecology, applied technologies, environment, geophysics, horizontal drilling, and water resource management.

With operations in 10 U.S. states and 11 international locations, GeoEngineers' business requires the secure and reliable transfer of data at high speeds. With a healthy growth rate, driven both organically and through acquisition, the company faces the challenge of maintaining a network infrastructure that must be flexible while continually providing its users the highest performance levels. GeoEngineers' IT staff acquired and deployed Riverbed Technology's wide-area data services solution because of its ease of manageability during deployment, the increases in IT and user productivity that it offers, the scalability of the solution, and the cost savings associated with all of these attributes.

Business Impact of WDS

Getting started — Speed and Ease of Installation

When deploying a new technology, key value-adds are the ease and speed of installation. Riverbed's WDS solution proved to have both of these advantages. Courtenay Bernier, IT manager at GeoEngineers, explained that "it was so easy to install. We thoroughly reviewed our network infrastructure, tested the units, established a rollout plan, and determined the quickest way to install the units while minimizing downtime. Installing the units was literally a switch of two Ethernet cables and we were live." With respect to the speed of the installation, Bernier understood that installation required about one hour and noted that "we set up a couple of rules on the Riverbeds because we wanted to install the units without optimizing traffic. That way we made sure traffic passed through the units properly. Enabling traffic optimization was extremely easy (literally a click of your mouse) and we saw instantaneous results."

Scalability

GeoEngineers' growth makes a flexible and expansive network a necessity. Sustaining the flow of information and matching demands on usage are critical ingredients for a growing business. GeoEngineers was not only expanding its operations in terms of offices and people but also adding technology such as videoconferencing and content collaboration (SharePoint) to position itself to capitalize on its acquisitions. The load on its corporate WAN was a problem that threatened to slow momentum. Riverbed enabled GeoEngineers to reduce bandwidth by 50% despite its growth. Bernier explained that "we needed to scale our bandwidth-intensive applications and the Riverbeds actually helped. However, the Riverbed appliance does not only optimize bandwidth. Riverbed enables the ability to accelerate certain types of traffic, such as FTP traffic, MAPI traffic, CIFS traffic, HTTP traffic, and so on."

Improved User Productivity

Engineering services require collaboration, which entails the transfer of large data files such as CAD and GIS in addition to standard office productivity applications. Bernier noted that by optimizing the WAN, "we have increased production — our file transfers are much quicker. We also eliminated the need to deploy additional Exchange servers throughout the corporation because Riverbed optimizes MAPI traffic efficiently; SQL replications are much quicker and HTTP traffic is much more efficient as well." GeoEngineers feels its users who transfer files and use collaboration tools are 50% more efficient working over the WAN with Riverbed's WDS solution.

Optimized IT Services

According to Bernier, Riverbed's WDS solution offers a high reward in IT productivity in that it decreases the amount of time required for server management (hardware and software) by increasing the access speed to systems and devices. Bernier said, "We were able to eliminate the network spikes experienced when the service desk performed live help sessions with end users. File replication was also optimized, which greatly reduced the amount of bandwidth utilized, freeing it up for other critical network traffic. We do have class of service [CoS] implemented throughout the network; however, the Riverbeds enhanced CoS by adding the optimization layer."

GeoEngineers' ROI from Riverbed's WDS Solution

The primary reason for altering an enterprisewide network is the bottom line. Riverbed's WDS solution helped to optimize the infrastructure, reducing and positioning the company for growth with enhanced scalability, user performance, and increased collaboration; offering savings in bandwidth and IT FTEs; and increasing user productivity, all of which translate into value and high quality of performance for the corporation.

Bernier estimates that GeoEngineers added roughly 155 megabits of bandwidth to its 3-meg corporate WAN link without spending a dollar in new bandwidth. As a result, GeoEngineers avoided buying additional bandwidth (T1 lines) by installing Riverbed's WDS solution at each site, saving about \$500,000 per month. In addition, the virtual memory (cache) added by Riverbed improves the current network bandwidth, increasing its ability to handle larger workloads on fewer servers.

The optimized environment meant that GeoEngineers avoided adding email and database servers to support operations in each of its 16 offices. This cost avoidance totaled an initial outlay of \$825,000 for hardware and software and annual licensing fees of approximately \$382,500. Without adding the costs for upgrades and additional manpower to manage these servers, the average annual cost avoided for servers and software is about \$530,000.

Combined with bandwidth savings and IT operational savings, GeoEngineers is enjoying an annual benefit of close to \$1.7 million compared with a total investment of about \$130,000 in the Riverbed solution. These amazing savings are only part of the equation as the benefits of scalability, more productive employees, and more reliable operations should contribute to the top line as well.

Copyright Notice

External Publication of IDC Information and Data — Any IDC information that is to be used in advertising, press releases, or promotional materials requires prior written approval from the appropriate IDC Vice President or Country Manager. A draft of the proposed document should accompany any such request. IDC reserves the right to deny approval of external usage for any reason.

Copyright 2007 IDC. Reproduction without written permission is completely forbidden.