

CASE STUDY: Traffic Planning and Design, Inc.

SUMMARY

Industry

- Engineering

Challenges

- Improve CADD file sharing over the Wide Area Network (WAN)
- Centralize and consolidate servers into the data center
- Establish a baseline infrastructure for future branch office expansions

Solution

- Steelhead appliances deployed in each existing office, and additional Steelheads deployed in each new office roll-out

Benefits

- 85% reduction in bandwidth utilization
- \$78,000 saved annually by reclaiming an hour per CADD user per day
- IT Team centralized, vastly improving remote administration
- Improved project management and collaboration, and responsiveness to clients



Steelhead™ Appliances Reduce Bandwidth Consumption and Improve Productivity and Collaboration

Background

Traffic Planning and Design (TPD) (www.trafficpd.com) is a 90-member consulting engineering firm specializing in Traffic Studies and Bridge, Highway, and Traffic Signal Designs for both public and private sector clients. In addition, TPD provides Environmental Studies, Construction Management, and Site Access Permitting Services.

Throughout its history, TPD has remained dedicated to developing responsible and innovative transportation and environmental solutions; promoting safe transportation and development to accommodate growing population. TPD is ranked #1 on the list of "Top Places to Work in Pennsylvania."

Currently, TPD has 3 Pennsylvania offices located in the Philadelphia, Allentown, and Harrisburg areas; future branch office locations are currently in the planning stages. The ability to expand quickly and efficiently is due largely in part to the improvements realized by the addition of Riverbed's Steelheads to TPD's existing network infrastructure.

Challenge: A High-Performance WAN to Connect Offices

For TPD, optimizing their WAN is a strategic priority for both the existing environment and future expansion. "Without a reliable, high performance WAN, we would not be able to provide our branch office staff the tools and support they need to do their jobs effectively and respond so quickly to clients. That is something we are not willing to sacrifice." Notes Karl Fischer, IT Manager for TPD.

"If we could find a way to centralize IT while still providing a consistent level of support to the branch office staff, we could better manage IT overhead."

CADD applications form the foundation for services rendered by TPD. Performance and file access speeds for Bentley MicroStation CADD were the productivity drivers behind the WAN optimization initiative. "TPD is growing, and file sizes are growing, but a single T1 cannot handle that traffic without help," adds Fischer.

TPD was also looking to optimize the cost side of network management. "Managing branch office IT infrastructure can be really expensive," said Fischer. "I knew if we could find a way to centralize IT while still providing a consistent level of support to the branch office staff, we could better manage IT overhead."

Solution: Steelhead Appliances

TPD examined a number of different solutions to the immediate WAN performance issue. "We considered adding bandwidth, running on Citrix, and various hardware and software WAN optimizers. But when I read about Riverbed's Steelhead appliance and conducted some research, my decision was a no-brainer."

Fischer liked the wide applicability of the Steelhead, along with its ease of deployment. "Riverbed is unique because it provides a powerful combination of technologies to accelerate all of our applications and data types. So many other companies were talking to us about QoS, but our focus was on network optimization. Steelheads just sit transparently in the network and get the job done."

Benefits

TPD has seen dramatic benefits since deploying Riverbed Steelhead appliances. For example, the company has recorded

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OVERVIEW

Performance and file access speeds for Bentley MicroStation CADD were the productivity drivers behind TPD's WAN optimization initiative.

Since deploying Riverbed Steelhead appliances, TPD has recorded an 85% reduction in peak bandwidth utilization over the WAN.

As TPD quickly grows to new locations, Steelhead appliances have become an integral part of the office IT environment.

Not only did TPD address their immediate WAN performance issue, but they were also able to build a strategic foundation for the future.

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Fischer estimates that each CADD user saves an hour every day from accelerated CADD file access. That means TPD gains 15 working hours per day, and users lose a significant

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amount of frustration. TPD can roll out new software, patches, and perform backups much more effectively because all servers are consolidated at the Headquarters.

Strategically, TPD is no longer constrained to completing work in one particular office. "With Steelheads deployed, workloads can be distributed between the offices as necessary and teams can help each other out during time crunches. Team collaboration allows us to exceed customer expectations."

An additional benefit of TPD's "One office, multiple locations" philosophy is the flexibility in attracting/ retaining quality staff. "A few employees needed to relocate for family reasons, and they didn't have to leave the company because we just shifted them to another office. We also put the idea on the table when speaking to prospective employees. That flexibility is invaluable and a good reason we were named the best place to work in Pennsylvania."

Future Plans

As TPD quickly grows to new locations, Steelhead appliances have become an integral part of the office IT environment. Notes Fischer, "When we roll out a new office, we deploy a T1 line, CADD Workstations, and a Riverbed Steelhead appliance. That's it. That's all we need to get our employees up and running." Not only did TPD address their immediate WAN performance issue, but they were also able to build a strategic foundation for the future.

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About Riverbed

Riverbed Technology is the pioneer in wide area data services (WDS), a fast-growing product category that solves the problems of high latency and limited bandwidth that plague a wide variety of applications over distributed networks. Riverbed's Steelhead appliances provide the highest level of WAN performance at a lower cost, reducing WAN traffic by up to 95% and accelerating applications by up to 100 times. By providing optimizations that are orders of magnitude greater than what users experience today, Riverbed is changing the way people work – and enabling, for the first time, a truly distributed workforce. InfoWorld named Steelhead a "Product of the Year" for 2005 as the "Best WAN Accelerator." Steelhead appliances are available worldwide directly from Riverbed and through global partners, including HP.