

Landform Professional Services



Time to open large CAD files from home shrank from 20 minutes to 90 seconds—with Riverbed® Client Accelerator

Minneapolis-based Landform Professional Services, LLC is a multi-disciplinary consulting firm known for its SensiblyGreen® approach, with integrated site design services including civil engineering, landscape architecture, planning, urban design, and land surveying. Employees work in teams to create memorable places for cities, park boards, architects, builders, property owners, retailers, and developers across the U.S.

In Brief

Challenges

- Ensure business continuity when employees can't work in the office
- Enable staff to open large CAD files from home and remote sites as quickly as they do in the main office
- Keep existing design and IT workflows

Solution

- Riverbed® Client Accelerator (formerly SteelHead™ Mobile) on employee laptops and desktops
- Riverbed® SteelHead™ CX in data center
- Proof of concept and virtual machine hosting (for Riverbed® Mobile Controller) from Collaboration Systems Group (CSG), a Riverbed partner
- Apps delivered: AutoCAD Civil 3D, Land F/X, Sketchup, Adobe InDesign and Photoshop

Benefits

- 92% faster opening of large CAD files from home—from 20 minutes down to 90 seconds
- Up to 2-3 hours daily time savings per employee, paying back investment in less than one month
- Proof of concept deployed in less than 30 minutes
- Overnight transition to work from home—a competitive advantage

Challenge: CAD collaboration over slow and unreliable home internet connections

Landform teams have traditionally worked in one of three Minnesota studios: downtown Minneapolis, Eagan, and Elk River. In 2018, the company began enabling remote work, for business continuity and more flexibility. “We quickly implemented communications and collaboration solutions, but we also needed a way to open and collaborate on large CAD files over home internet connections,” says Kevin Walgren, Technology Lead.

Surface files (3D representations of a land area) in AutoCAD Civil 3D can range from tens of megabytes to more than a gigabyte. Opening a large surface file took about a minute in the main office, 20 minutes from a remote studio, and even longer over a 100Mbps home

internet connection. Without application acceleration, a civil engineer who opened half a dozen large files a day would lose two hours—a 25% hit to productivity. “To complete client projects on time and on budget, we needed to make sure home internet speeds didn’t slow down work,” Walgren says.

“One of our engineers tested Client Accelerator at home over a 100Mbps connection. A file that took 20 minutes to open without Client Accelerator opened in just 1.5 minutes—92% faster.”

Kevin Walgren, Technology Lead, Landform

Solution: Riverbed Client Accelerator

Walgren evaluated various approaches to opening files faster over the internet. Fiber connections to the home didn’t do enough to speed up file opening. Virtual desktop infrastructure and cloud services cost too much. Cloud services would also require moving files off-premises and changing backup processes.

Then Collaboration Systems Group (CSG), a Riverbed partner specializing in architecture, engineering, and construction, recommended Riverbed Client Accelerator. A software-only solution, Client Accelerator speeds up access to on-premises and cloud applications. “As files are updated, Riverbed Client Accelerator sends only the changes across the network, making it much faster to open and save files,” Walgren explains.

“Say we’re in a Microsoft Teams meeting and everyone has an AutoCAD Civil 3D file open. If a designer asks someone to move a lot line 10 feet to the left, the other people can see the change almost instantaneously. Real-time collaboration on drawings from home is a game changer.”

Kevin Walgren, Technology Lead, Landform

For the proof of concept, CSG shipped a preconfigured Riverbed SteelHead CX appliance to Landform. In just 30 minutes the solution was up and running. “Internet traffic volume decreased by 72%,” Walgren says. “One of our civil engineers tested Riverbed Client Accelerator at home over a 100Mbps connection. A file that took 20 minutes to open without Client Accelerator opened in just 1.5 minutes—92% faster.”

Before the proof of concept was complete, the state of Minnesota issued stay-at-home orders—effective the very next day. “We moved from proof of concept to production literally overnight,” Walgren says. “The first few users were on-boarded within an hour—and by day two everyone was up and running.” All Walgren had to do was install the client agent on employee workstations and move the SteelHead appliance from his office to the data center.

Results: LAN-like speeds from home

With Riverbed Client Accelerator, Landform teams working over home internet connections produce the same quality of work at the same pace they do in the office. “The best compliment I’ve heard is, ‘It’s just like working in the office,’” says Walgren.

No loss of productivity, for rapid payback.

Faster file access saves each employee from 20 minutes to 2-3 hours daily. The larger the file, the more time saved. Say a land-development project has five team members with an average billing rate of \$200/hour. If Riverbed Client Accelerator saves each person one hour a day (as it would if they each opened three large or five medium files), Landform avoids \$1,000 a day in lost productivity. That’s \$5,000 a week or \$250,000 a year—the equivalent of 1-2 full-time employees. Riverbed Client Accelerator paid for itself in less than a month.

Efficient team collaboration on large files.

By accelerating access to files on office servers, Riverbed Client Accelerator eliminates the temptation to save files locally, avoiding lost work if two people work concurrently on the same drawing. Fast opens and saves also enable rich collaboration during team meetings. “Say we’re in a Microsoft Teams meeting and everyone has an AutoCAD Civil 3D file open,” says Walgren. “If a designer asks someone to move a lot line 10 feet to the left, the other people can see the change almost instantaneously. Real-time collaboration on drawings from home is a game changer.”

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Kevin Walgren, Technology Lead, Landform

Competitive advantage.

Unlike many companies in the industry, Landform didn’t furlough any staff during the pandemic—and, in fact, is hiring. The firm won contracts for two large projects in the first few months of the stay-at-home order. “Organizations looking for site design services want to know the partner firm can continue working even if there’s another lockdown,” Walgren says. “We’ve shown we can do our best work whatever the future brings—whether we’re all back in the office, all at home, or a mix. Riverbed Client Accelerator is a big part of that.”

“Compared to working from home without Riverbed Client Accelerator, it’s like we traded our underpowered economy car for a Porsche. It’s great when IT is seen as a hero.”

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Simple IT.

The Riverbed solution doesn’t add work for IT. Files remained in Landform’s data center, so backup processes didn’t have to change. CSG deployed Riverbed Mobile Controller as a virtual machine on its own infrastructure so that Landform didn’t even need storage space.

Next steps

Now Landform is brainstorming new ways to use Riverbed Client Accelerator. One idea: giving customers licenses so they can view drawings and give feedback throughout the design process.

Walgren concludes, “Company leadership, team members, and our clients are all happy with the Riverbed Client Accelerator solution because we quickly adapted to ‘work from home’ and are just as productive as ever. Compared to working from home without Riverbed Client Accelerator, it’s like we traded an underpowered car for a Porsche. It’s great when IT is seen as a hero.”

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About Riverbed

Riverbed enables organizations to maximize performance and visibility for networks and applications, so they can overcome complexity and fully capitalize on their digital and cloud investments. The Riverbed Network and Application Performance Platform enables organizations to visualize, optimize, remediate and accelerate the performance of any network for any application. The platform addresses performance and visibility holistically with best-in-class WAN optimization, network performance management (NPM), application acceleration (including Office 365, SaaS, client and cloud acceleration), and enterprise-grade SD-WAN. Riverbed’s 30,000+ customers include 99% of the *Fortune* 100. Learn more at riverbed.com.

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