

GHD



## With Optimisation for Faster App Performance and Network Visibility for Faster Troubleshooting, GHD's Dispersed Professionals Can Now Work as One Team

### Challenge: Enable collaboration between project teams spread across the globe

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. The company employs more than 8500 people in more than 200 offices across five continents. This widely dispersed team offers more than 70 service lines, from engineering to architecture to environmental and construction services—each of which is effectively a different profession with its own unique requirements.

The types of construction and environmental projects GHD engages in are extensive, highly cross-disciplinary and collaborative in nature. Engineers and architects spread out across various offices must collaborate long distance, and to do this they must use applications. GHD has more than 3,000 applications, any one of which could be critical for a particular project. Key collaboration apps such as CAD, 3D modeling, 3D visualisation, and geographic information system (GIS) generate incredibly large amounts of data, and all this data must traverse the company's networks so that all the contributing professionals are able to work together.

Vast data volumes and large files could be an obstacle to effective collaboration. Transferring a single 112 MB file from Sydney to Beijing, for example, would take almost 19 minutes. As a workaround, teams had to copy and update files locally. A project manager would then need to manage version updates and distribute these to the various offices involved in the project.

A critical objective at GHD was to operate as one connected company—"One GHD"—where employees could collaborate and contribute to projects regardless of their location. But application slowness was an obstacle to this goal. A previous network optimisation solution that had been put in place had not delivered the needed results.

"The problem was really twofold," says Elizabeth Harper, CIO at GHD. "We had some WAN optimisation with another vendor, but it started to corrupt data in our network, so our engineers had to reconstruct those files, especially around CAD. This not only posed risks to project delivery, but was also detrimental to staff morale and satisfaction."

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Elizabeth Harper  
CIO  
GHD

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## In Brief

## Challenges

- Geographically dispersed project teams needed to collaborate
- Need to manage more than 3,000 applications, including CAD, 3D modeling/visualisation and GIS and facilitate troubleshooting, all without compromising project deliveries
- Previous attempt at a solution corrupted data and had poor vendor support

## Solution

- Riverbed Application Performance Platform
- SteelHead optimisation solutions
  - SteelCentral NPM solutions (SteelCentral NetProfiler, NetShark, Flow Gateway, Packet Analyser)

## Benefits

- Greatly improved staff productivity and morale
- GHD's teams can now easily collaborate long distance
- Virtually eliminated risk to project delivery from poor network performance
- Greater visibility into application performance keeps apps running at maximum speeds

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## Solution: Riverbed application performance platform, with SteelHead WAN optimisation and SteelCentral network performance visibility

Harper and her team initiated a search for more effective WAN optimisation. "After three proofs of concept from different vendors, we selected Riverbed® because SteelHead™ and SteelCentral™ can handle anything we throw at them," Harper says. "Our business is simply too large to rely on a range of niche products that don't play nice with each other. We initially deployed 37 SteelHead appliances across the globe, and have expanded that to 96 units."

Network performance management (NPM) was the logical next step for GHD. NPM would improve network visibility and accelerate troubleshooting. For this, the company adopted another component of the Riverbed® Application Performance Platform, Riverbed® SteelCentral™ NPM solutions, including NetProfiler, NetShark, Flow Gateway, and Packet Analyser. SteelCentral is the only performance management suite that combines user experience, application, and network visibility to let IT see how everything is performing, from the code on the server to the device in the hand.

"We differentiate ourselves by responding swiftly to all client demands," says Harper.

"Coupled with SteelHead, SteelCentral provides visibility into applications and networks to expose, diagnose and resolve all performance issues, ensuring that GHD not just meets, but exceeds SLA requirements."

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## Benefits: Collaboration unifies business into “One GHD”

Having greatly reduced how long files take to transfer from one side of the globe to the other, employees are able to work together in a way previously unimaginable. “Our 8500 people collaborate on 3D apps, moving massive digital files across continents as if they’re working side-by-side. SteelHead makes it possible,” Harper says.

GHD’s people very quickly began to notice the difference, with user satisfaction surveys now consistently reporting satisfaction levels above 90 per cent.

“Initially, we explored SteelHead as complementary technology, meaning that while it improved performance, if it went down we could still operate,” Harper explains. “However, we soon found out that once we had SteelHead offline there was a huge difference in performance. To put this into perspective, before SteelHead, a 112 MB file would have taken almost 19 minutes to transfer from Sydney to Beijing. We now do this in 19 seconds.”

“With SteelHead we ‘set and forget’—anything that comes across it is optimised even if we haven’t set it prior,” Harper adds. “From a business point of view, it is a critical technology as we’re able to share work globally around the practice.”

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The greater level of visibility has also completely redefined the task of troubleshooting. Prior to implementing SteelCentral, troubleshooting would require multiple teams many hours to diagnose the cause of poor application performance before remediation could take place. Now, network managers are not only able to drill down into problems and remediate issues within minutes, but, if the application has been benchmarked, it can also be done before end users even notice a problem.

“Beyond using SteelHead for WAN optimisation, SteelCentral gives us the comprehensive visibility and diagnostics into application and network performance we need to quickly and collaboratively identify, isolate and resolve problems anywhere within the app or the network. This is a huge improvement from earlier, when we relied on multiple staff across different teams to use their respective tools to—often unsuccessfully—locate and troubleshoot the problem,” Harper says.

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#### About Riverbed

Riverbed, at more than \$1 billion in annual revenue, is the leader in application performance infrastructure, delivering the most complete platform for the hybrid enterprise to ensure applications perform as expected, data is always available when needed, and performance issues can be proactively detected and resolved before impacting business performance. Riverbed enables hybrid enterprises to transform application performance into a competitive advantage by maximizing employee productivity and leveraging IT to create new forms of operational agility. Riverbed’s 26,000+ customers include 97% of the *Fortune* 100 and 98% of the *Forbes* Global 100. Learn more at [riverbed.com](http://riverbed.com).

The Riverbed logo consists of the word "riverbed" in a lowercase, bold, orange sans-serif font.