

# Murphy Pipe and Civil



## Riverbed Application Performance Platform Opens Communications Pipeline, Slashes Networking Costs and Speeds Resolution of Performance Issues

Murphy Pipe and Civil is a leading Australian pipeline construction company for the energy, water and mining sectors. The company is responsible for provisioning the entire upstream gas-gathering network across the Surat Basin gas fields—the largest gas-gathering network of its kind in Australia.

### Challenge: Rapid deployment requirements in remote regions

Murphy Pipe and Civil has approximately 600 employees spread across 11 offices in Australia and three locations in the United States. During the course of pipeline construction, many of these offices need to be quickly relocated as stages of the project are completed.

Not only do pipeline construction projects traverse extremely remote regions of the Australian Outback with little to no existing infrastructure, but IT personnel are sometimes given only a few days' notice that an office site needs to be moved.

“We were using a number of disparate systems and connectivity was poor at best,” said Brian Carroll, Group Manager, IS&T, Murphy Pipe and Civil. “Because we frequently operate on leaseholds or other companies’ properties, we’re unable to put fibre or copper in the ground.”

With no other options at the time, Carroll said the group tried to use alternative connectivity methods, but none could provide the performance required—often leaving office sites with limited access to communications technology.

“At some sites, we would use satellite technology but it was high-latency, high-cost and its performance was poor. We wanted to remove all our reliance on satellite—it is our last option before we revert to carrier pigeons—and find a more dynamic way to keep our offices connected,” Carroll said.

Carroll said there were a number of key challenges the solution had to overcome: it had to be deployed with just a few days’ notice, operate in isolated regions with little other communications infrastructure, and enable Murphy Pipe and Civil to run all of its applications centrally from its Brisbane-based data centres.

Also, because the company had no formal network monitoring or reporting mechanisms, the network and all the company’s applications would need to be mapped to identify how to best optimise performance.

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## In Brief

## Challenges

- Rapid office relocation in remote regions during pipeline construction projects
- Unreliable connectivity and communications that reduced access to business critical applications and slowed project delivery
- Poor network and application performance because of high-latency and high-cost network connections
- Frequent network downtime due to critical incidents
- No actionable insights for network engineers because of a lack of network visibility and reporting

## Solution

- Riverbed Application Performance Platform:
  - SteelHead EX, SteelHead CX
  - Riverbed SteelCentral, delivered as a managed service by CDM Australia

## Benefits

- Accelerates deployment and provisioning of remote sites with at least 3G connectivity
- Speeds identification and remediation of application and network performance problems with end-to-end visibility
- Ensures performance of collaboration applications and tools, including video and phone conferencing, across all sites
- Extensive reduction of network costs with exponential performance improvement

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## Solution: Full Infrastructure Visibility, Optimisation and Control from Riverbed

The first step was to understand the current state of the network and to locate any problems and bottlenecks that needed to be fixed. Together with managed network services partner CDM, Murphy Pipe and Civil used Riverbed® SteelCentral™ performance management solutions to gain the end-to-end visibility needed to quickly identify and remediate issues that were encountered during the overhaul.

With no prior reporting framework in place, this initial network reconnaissance was critical to understanding the exact issues impacting network performance.

“Before we started to explore acceleration, we had to get the lay of the land when it came to our network—with SteelCentral we had the end-to-end visibility to see exactly what needed to be fixed,” Carroll said.

Having identified and addressed his network visibility issues, Carroll looked to another component of the Riverbed® Application Performance Platform™ to solve his other challenge: network connectivity issues.

WAN (wide area network) optimisation with Riverbed® SteelHead™ was the best fit for Carroll as it would not only greatly increase network performance, but would also minimise both bandwidth demands and the amount of hardware required at remote sites.

“We array the SteelHeads with solid state drives which also allows us to deploy additional capabilities like print servers out at the remote sites,” Carroll said. “The solution optimises all the traffic so we can have sites with dozens of people on a single 3G link working as if they were in head office.”

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SteelHead has removed the need for a number of other hardware components. So not only has the size of the connectivity boxes—which provide all the IT to remote sites—greatly decreased, but it has also made setup much simpler.

“The connectivity box has gone from being a large, unwieldy box full of servers that required four people just to lift it, to being the size of a small suitcase. It now has just a SteelHead, a router, and a few other pieces and it allows us to deploy an entire office environment in minutes—they’re pre-configured so we literally plug it in and get to work,” Carroll said.

The ability to centralise all of the organisation’s applications at the data centre has also greatly simplified network management and allowed Murphy Pipe and Civil to expand and open offices in the US.

According to Carroll: “This architecture has allowed us to host absolutely everything centrally: unified communications, ERP systems, SharePoint—all the usual applications.

Not only do we have our remote Australian sites running on the SteelHeads, but we’ve taken the same concept to the US so our sites there also run off centralised applications in our Queensland data centres.”

Through the ongoing use of SteelCentral performance monitoring, Murphy Pipe and Civil’s managed service partner, CDM, can quickly identify if the relocation of a server into the core has been successful. If there is any impact on other applications or network performance, QoS settings can be swiftly changed to ensure that certain business-critical applications are prioritised over other traffic.

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“Since we’ve implemented SteelHeads, our WAN costs are now less than a quarter of what they were previously—this is despite having expanded to the US and having those sites on the same network.”

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Group Manager, IS&T  
Murphy Pipe and Civil

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## Benefits: Costs cut, data centralised and business confidence soaring

Not only has the Riverbed Application Performance Platform enabled Murphy Pipe and Civil to rapidly provision remote offices along the length of a pipeline project, but connectivity at the sites now allows employees to work as if they were in a capital city rather than a far-flung locale.

“The biggest impact this has had is that we now have phone systems at the remote sites. We have teleconferencing which allows the sites to communicate with each other and with head office—before this, our only office with telephony was in Brisbane.

“This now gives us a great deal of confidence when we compete for a tender. We are up against some of the largest firms in the world and I have no qualms standing in front of our CEO and saying that our connectivity is as good as—if not better than—our competitors,” Carroll said.

Additionally, if any application or network issues arise, SteelCentral alerts network engineers in real time, which allows performance levels to be maintained—all without end users ever noticing a difference. Prior to the implementation of SteelCentral, a field technician may have been required to troubleshoot issues, often taking multiple hours just to arrive on-site. Now, the vast majority of performance issues can be resolved centrally by CDM.

With the exact cause of performance degradations now easily identifiable, CDM can quickly notify the relevant party in order to begin remediation when the cause is beyond CDM’s remit—when the fault is with Murphy Pipe and Civil’s carrier network, for example. Previously, the identification process itself would have taken days, whereas now it can be done in minutes through SteelCentral’s full-distance network visibility.

The ability to centralise all applications and services at the data centre has also completely redefined the company's business processes, increasing productivity and efficiency throughout the organisation—not just in Australia, but also at its two sites in the United States.

“In terms of ERP, for example, this was previously managed by a copious number of spreadsheets with each site working off a different data set. To say it was onerous is an understatement. We have now been able to provision centralised financial and asset recording which allows the whole organisation to work on the same data set at the same time,” added Carroll.

While the acceleration of business processes and the increase in operational efficiencies has had an enormous impact on Murphy Pipe and Civil, there is one metric that stands out for Carroll—cost savings.

“Since we've implemented SteelHeads, our WAN costs are now less than a quarter of what they were previously—this is despite having expanded to the US and having those sites on the same network,” he said.

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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 27,000+ 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, sans-serif font. The "river" part is in a dark blue color, and the "bed" part is in a bright orange color.