

Veolia Water Technologies



WAN Optimization and Network Performance Management from Riverbed Solve Latency and Visibility Issues

Veolia Water Technologies provides a range of services for water and wastewater treatment facilities and systems. The company has more than 10,300 employees and a turnover of \$2.9bn.

Veolia's 130 business units are located throughout the world and are interconnected with a global MPLS network to provide IT services centrally. High levels of latency,

due to long distances to some locations, meant it wasn't always possible to provision crucial applications, such as an ERP, from a central data centre out to branch sites without compromising performance. End-to-end network visibility across a global platform consisting of multiple MPLS providers was also a problem. By deploying Riverbed® SteelHead™ and a suite of Riverbed® SteelCentral™ solutions, Veolia has been able to significantly improve the performance of key applications, support its centralised approach to the provision of IT services and identify, analyse and resolve network issues quickly.

In Brief

Challenges

- Latency issues over long distances were compromising performance of key applications
- A global network consisting of multiple MPLS providers was difficult to monitor and manage
- Can take up to a week to find and resolve network issues

Solution

- SteelHead™
- SteelCentral™ NetProfiler
- SteelCentral™ Transaction Analyzer
- SteelCentral™ Flow Gateway

Benefits

- Significantly improved application performance
- Ability to centralise the provision of IT services without compromising end-user experience
- Far better network visibility from end-to-end
- Faster troubleshooting—network issues often resolved in less than an hour

Challenge: High latency with limited visibility

Veolia's MPLS corporate WAN connects its 130 business units around the world. 3 main data centers in France are supplemented by 50 local server rooms and mini data centers. The corporate WAN has been built from several MPLS network providers which makes it difficult to get an end-to-end view of the entire platform.

"Our problems began when we decided to roll out a key ERP application from a single central data center to all business units," explains Nicolas Stab, Performance Manager of Veolia Water Technologies, "High network latency and slow response times led to many complaints from our end users. This was compounded by the fact that they were being billed to use the ERP.

At the Paris site, opening the ERP took around 3 seconds; whilst in Australia it was taking around 30. As we were in the middle of centralising our most critical IT services, this was a major issue".

Poor network visibility was another problem they faced. Veolia had set-up a dedicated performance taskforce with the goal of closely monitoring and improving network performance. "If we saw degradation in performance, the ball would be passed from team to team—'it's not our problem.' The complexity of our IT made it very difficult to pinpoint problems. It could take a week to find the source after analysing router data," notes Stab.

Solution: Business systems work optimally, independent of location and on the move

Veolia considered increasing network bandwidth as a means of improving application speed, but realised it wasn't the solution. "Even if we had put a fibre optic link between Australia and Paris, the latency would still be around 300 milliseconds," says Stab. WAN Optimization was seen as a more effective option. After considering a solution from Cisco, Veolia conducted a POC using Riverbed® SteelHead™.

SteelHead enables organizations to control network utilization and prioritize mission-critical and latency-sensitive applications. "The results were convincing; SteelHead made a significant difference to the performance we saw," says Stab. Veolia has deployed 74 SteelHead appliances at its main sites, plus Riverbed® SteelHead™ Mobile at 110 smaller sites. "SteelHead's acceleration and prioritisation capabilities mean we can now continue with our plans to provision and support services centrally.

We now have the confidence of knowing that our business systems will work to their optimum regardless of the location or branch site where they are being used. It also means our mobile workers are fully supported too," says Stab.

Several solutions were considered for improving network visibility, including a bespoke solution using a NetFlow connector and products from SolarWinds and What'sUp. None offered the visibility, flexibility or ease-of-use Veolia was looking for. "I wanted a solution I could turn on in the datacenter without having to engage other IT teams," says Stab.

Riverbed® SteelCentral™ NetShark is embedded in SteelHead, offering packet capture functionality, without the need for additional instrumentation. This built-in visibility provides a cost-effective solution, adds Stab.

To provide the necessary visibility into the network that had been lacking, Veolia chose to build on their SteelHead deployment with several SteelCentral solutions.

SteelCentral NetProfiler combines network flow data with packet-based performance metrics from information collected by SteelCentral NetShark, SteelCentral Flow Gateway and SteelHead. This combination provides Veolia with better proactive monitoring, analysis and reporting capabilities. SteelCentral Packet Analyzer is also being deployed as a network analysis and reporting solution.

SteelCentral Flow Gateway collects, aggregates, and compresses flow data such as NetFlow and transmits it to the SteelCentral NetProfiler.

“As a result of our Riverbed deployment we now have the confidence to deploy our important business applications from France out to all our global sites and be sure that our users won’t see any degradation to the service. In some places like Malaysia, we’ve improved the response time of some of our applications by more than 80%.”

Nicolas Stab
Performance Manager
Veolia Water Technologies

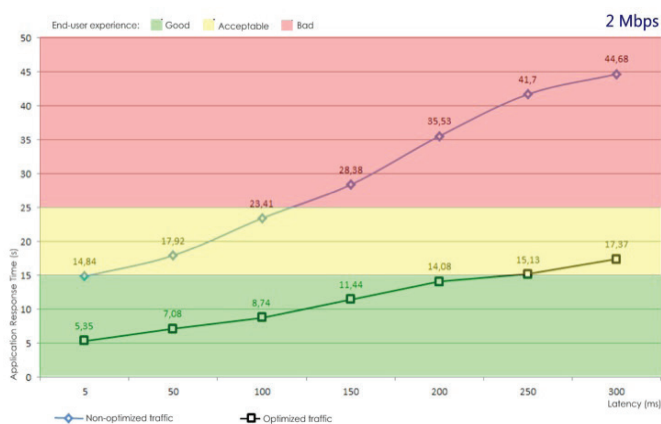
Results: Faster applications, better end user experience, higher network visibility and faster fault detection

Riverbed made a dramatic difference. “Before using SteelHead, we used to get lots of complaints from our employees across the globe. Now, we don’t,” says Stab.

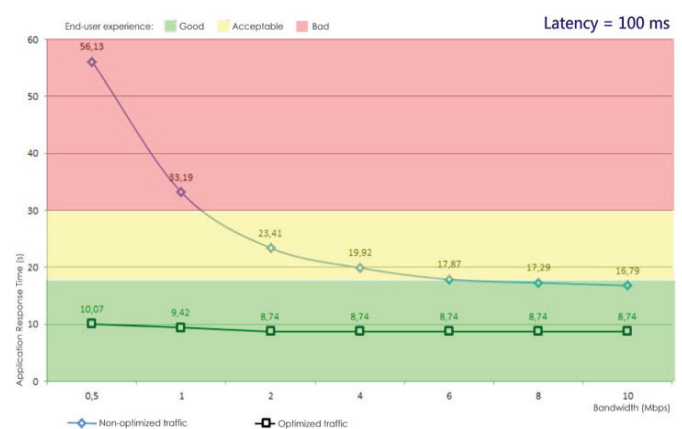
Stress Test results explain why. It takes 4.7 seconds to open a screen of a sales application in Paris. In Malaysia where SteelHead hasn’t yet been deployed it takes 47 seconds and once deployed it takes 6.4 seconds—an improvement of more than 80%.

Network visibility has been transformed. “With more than 70 SteelHeads, I have a great overview of our entire global network and a much better understanding of peak usages and packet loss,” notes Stab. “Troubleshooting is much faster with SteelCentral. Instead of taking a week to find the source of a problem, it now takes less than an hour. We can often find things with a single click,” says Stab. “If the bandwidth usage gets close to full capacity we can pinpoint where this is happening and talk to the relevant IT manager. We can find and fix problems before end users have noticed there’s an issue.”

Response time by latency: Riverbed makes global ERP deployment possible



Response time by bandwidth: Increasing bandwidth won’t deliver better performance



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.

The Riverbed logo consists of the word "riverbed" in a lowercase, bold, orange sans-serif font. The letters are closely spaced, and the overall appearance is clean and modern.