

# MOTT MACDONALD

Mott MacDonald Selects Riverbed Solution from Teneo



“As applications and documents continued to increase in size and complexity, standard network technologies were limited and becoming unsuitable for our infrastructure. To achieve this combination of extra capacity and centralization we chose WAN optimization which would give a more cost effective, long-term solution than just increasing bandwidth.”

*Bradley Tullett*  
Global Infrastructure Director

## Mott MacDonald

Mott MacDonald is a global management, engineering and development consultancy with more than 14,000 staff, £1 billion turnover and work in 140 countries for the public and private sectors. Mott MacDonald's core business sectors cover buildings, transport, energy, water, environment, health, education, industry, oil and gas, communications and international development. Major projects include the Channel Tunnel, the Lantau Link in Hong Kong, Heathrow T5 and Wembley Stadium.

The network architecture consists of MPLS networks in the UK, Middle East and South ASIA and IP/VPNs in the Europe, Africa and Asia-Pacific. Key applications include a document management system, Corporate Intranet, ERP and Microsoft Exchange.

## The Challenge

Increase application performance in order to retain application integrity and enable a centralization project

Bradley Tullett, Global Infrastructure Director from Mott MacDonald faced a number of challenges. Congested network bandwidth and insufficient capacity to meet future demand was potentially going to impact smooth design work-flow on larger scale projects.

In addition, the remoteness and basic nature of some of Mott MacDonald's many project sites (some being temporary portacabins) were presenting challenges in terms of systems service provision.

Of prime concern was being able to deliver continuity and consistency in data backup replication and the consolidation of data and services throughout the company's global sites, particularly as Mott MacDonald's designers need to run rich business and media files such as AutoCAD that were being worked on by engineers all over the world.

“We were starting to detect ‘sluggish’ download and opening times. We were concerned that if we didn’t find a solution quickly, our engineers may have needed to start keeping their own local versions of designs which could potentially create version control issues.”

When looking for a solution, Mott MacDonald also wanted to remove all local office based storage and centralize it to enable better control, collaboration and disaster recovery. Furthermore the company wanted to centralize MS Exchange for its 7,000 users across UK, Ireland and Europe, into a new UK data centre.

## In Brief

### Industry

- Construction & Engineering

### Challenge

- Increase application performance across remote and temporary work sites
- Retain application integrity
- Reduce bandwidth congestion and provide capacity to meet future demand
- Deliver continuity & consistency in data backup & replication across global sites

### Solution

- Global roll-out of 69 Riverbed Steelhead appliances & Central Management Console

### Benefits

- Fast ROI
- Boosted application performance
- Simplified IT management
- Lowered costs

## The Solution

### Global roll-out of 69 Riverbed Steelhead appliances & Central Management Console

The architecture and planning team examined a number of different WAN optimization solutions including vendors and resellers. After careful analysis they chose Riverbed and Teneo.

Teneo was chosen because it was the first Riverbed reseller in the UK and had the experience and pedigree Mott MacDonald was looking for. Teneo's Trans-Atlantic offices and worldwide network of support partners enables them to manage complex global deployments.

Riverbed Steelhead appliances reduce the need for bandwidth and make applications work faster by deploying a number of application, data and transport streamlining functions. Within many customer environments, this approach reduces corporate WAN traffic by between 60% and 95% and can improve application performance by up to 70 times.

Before Mott MacDonald committed to the Riverbed solution they worked with Teneo to pilot the appliances in three UK and one International office (Hong Kong). This benchmark test included CAD, MS Office, MS project and ERP applications. Activities used for the process were file opening, copying and saving between offices using files of differing sizes.

The trial confirmed compatibility with the network architecture, demonstrated considerable capacity savings and showed dramatic increases in application performance.

Riverbed accelerated all the most commonly used applications and offered an excellent fit for Mott MacDonald. Additionally, the Riverbed Central Management Console (CMC) enabled the configuration and management of many Steelhead appliances simultaneously.

**"The CMC has proved extremely useful allowing us to trouble shoot, roll out upgrades and create QoS templates and management reports."**

A total of 69 appliances were deployed either directly or project managed by Teneo using their network of support partners.

Teneo took responsibility for the whole project including the installation, international shipping, taxes and distribution logistics, saving Mott MacDonald a considerable amount of time and effort to ensure that this large scale international deployment ran smoothly.

Mott MacDonald invested in Teneo's Service Assurance offering to help them to maximize their return on investment. Service Assurance involves regular system audits to ensure the health of the Riverbed network using Teneo's RCSP accredited engineers (Riverbed Certified Solutions Professionals). The Engineers undertake thorough and detailed health checks and present the detailed reports summarising findings and recommendations on how to improve performance.

## Benefits

A fast ROI, boosted application performance, simpler IT management & lower costs

Mott MacDonald saw a significant return in bandwidth savings on their original investment, leading to substantial cost savings in terms of bandwidth in expensive locations such as the Middle East and remote offices. Steelhead appliances helped Mott MacDonald get more from their WAN while avoiding major and costly WAN upgrades.

Immediate and dramatic benefits to application performance across a broad range of applications were also seen. AutoCAD files in particular generate enormous files that are difficult to work with over the WAN. With the Steelheads, engineers were able to collaborate across long distances as if they were in the same offices and the speed to which these files move across the WAN was radically improved.

**"A 20Mb file can now be opened up in just 8 seconds. A 5Mb CAD file went down from 40 seconds to just 4 seconds and a 10 Mb CAD file went from 70 seconds to 7 seconds."**

Additional savings have also been made by cutting server costs and routine IT maintenance by enabling IT consolidation. The Riverbeds eliminated underutilized, hard to manage servers in remote locations while enhancing performance to those end users.

Accelerating application performance was key to the IT centralization project as users are required to perform many more transactions over the wide area network than before.

Data requests such as those for files or emails that were previously served by local infrastructure now take place over the WAN. An additional benefit for Mott MacDonald has been optimization of CommVault and NetApp traffic, used for remote site to data centre replication.

## The Future

Provide the most innovative, cost effective & efficient IT infrastructure

As part of their future development Mott MacDonald is considering a Riverbed based 'office in a box' solution for smaller offices. This will allow the removal of local file and print servers, Domain controllers and DHCP and DNS devices.

Bradley summarizes his experiences:

**"The key benefit of deploying Riverbed is that in addition to addressing the specific application performance issues, it could also optimize bandwidth on the network. We felt this offered a far better ROI than embarking on a costly upgrade of bandwidth."**

## About Teneo

Teneo is an Infrastructure Optimization Company that helps customers to understand and improve the way their IT works.

We do this by providing solutions in the areas of Management, Performance and Virtualization.

Teneo has over 1000 customers across 40 countries and offers a portfolio of services that includes Training, Installation, Maintenance and Performance Analysis Consultancy.

www.teneo.net

## About Riverbed

Riverbed's leading WAN Optimization solutions give organizations an order of magnitude increase in the performance of their network, application, and storage infrastructure.

### Head Office

20/21 Theale Lakes Business Park,  
Moulden Way, Sulhamstead,  
Berkshire,  
RG7 4GB

T: +44 (0) 118 983 8600  
F: +44 (0) 118 983 8633

### Manchester Office

Adamson House, Towers Business Park,  
Wilmslow Road, Didsbury,  
Manchester,  
M20 2YY

T: +44 (0) 161 955 3618  
F: +44 (0) 161 955 4201

### USA Office

44330 Mercure Circle,  
Suite 132,  
Dulles,  
VA 20166

T: 703.212.3220  
F: 703.996.1118

W. [www.teneo.net](http://www.teneo.net)  
E. [info@teneo.net](mailto:info@teneo.net)

© Copyright Teneo 2010