

JLL



Riverbed Helps JLL Maximize Productivity in Transition to Hybrid Apps and Networks

JLL (NYSE: JLL) is a professional services and investment management firm offering specialized real estate services to clients seeking increased value by owning, occupying and investing in real estate. With annual fee revenue of \$4.7 billion and gross revenue of \$5.4 billion, JLL has more than 230 corporate offices, operates in 80 countries and has a global workforce of approximately 58,000. On behalf of its clients, the firm provides management and real estate outsourcing services for a property portfolio of 3.4 billion square feet, or 316 million square meters, and completed \$118 billion in sales, acquisitions and finance transactions in 2014. Its investment management business, LaSalle Investment Management, has \$56.0 billion of real estate assets under management. JLL is the brand name, and a registered trademark, of Jones Lang LaSalle Incorporated. For further information, visit www.jll.com.

Challenge: Evolve IT environment to provide JLL a competitive advantage

JLL has invested significantly in network-based data and analytics systems, and is consistently recognized for the firm's leadership in data management and business intelligence for the commercial real estate space.

In fact, for the fourth consecutive year, *InformationWeek* has recognized JLL as an IT leader by including the company on its Elite 100 and 500 lists. The *InformationWeek* Elite recognition highlights business technology innovation by looking at the technology-based investments, strategies, and results of some of the best-known organizations in the country.

The company uses its leading-edge IT platform to recruit the industry's top commercial real estate professionals, and to optimize the productivity of its high performing professionals.

JLL's forward-thinking IT team supports 58,000 employees across 230 corporate offices in more than 80 countries, ensuring every JLL professional has rapid access to centralized, business-critical applications. The JLL network also supports a suite of industry-leading technology platforms that JLL uniquely offers to its clients, such as Blackbird, RED (real estate data and analytics), HiRise, IntelliCommand and others.

The IT team at JLL is constantly evolving its solutions to support business requirements with greater agility and reduced costs. For example, the IT environment is becoming increasingly hybrid as the company moves some applications and services to the cloud. "We have a process where we evaluate anything new that comes up as to whether it should go in the cloud or go on-premises," says Joe Ryan, JLL's Chief Technology Officer, Americas.

Also, the company is in the process of replacing its MPLS network with dual high-speed Internet links at each office. One Internet connection is provided by a telco, the other by a cable company. This makes much more bandwidth available at a better price than offices had in the past. For example, an office that previously would have had a six mbps connection for 100 people now has two Internet connections of 100 mbps or more.

But JLL has adopted new practices such as video town hall meetings and internal webcasts that require large amounts of bandwidth. The company's growing use of business analytics as a core component of its client service delivery adds to the amount of data going across the network as well.

In Brief

Challenges

- Evolve IT environment to support company's global growth and industry leadership
- Accommodate growing amount of network traffic without degrading application performance
- Transition to mix of hybrid application and networks

Solution

- Implemented more than 100 SteelHead EX appliances for WAN optimization, VSP and video stream splitting

Benefits

- Superior application performance supporting growing network traffic
- Ability to increase global collaboration by using next-generation apps such as live video over the network
- Servers removed from branch offices, reducing costs and IT time
- Average reduction in SSL data going across the network is 60% with the peak data reduction nearing 80%, for a 2.5x capacity increase
- Overall (all data types combined) the data reduction is 64%, with a peak data reduction of 90%, a 2.8x capacity increase

Solution: SteelHead WAN optimization, virtual services platform (VSP) and video stream splitting

As a very early Riverbed® customer, JLL originally deployed Riverbed® SteelHead™ appliances to improve the performance of centralized applications for employees in APAC, and as a way to avoid buying bandwidth at all of its global locations. “With the SteelHeads doing the compression on MAPI, HTTP, and other applications, we didn’t have to buy more bandwidth back when bandwidth was super expensive,” explains Ryan.

Even with the higher amounts of bandwidth available today, JLL continues to rely on SteelHead WAN optimization to overcome negative effects of WAN latency and congestion to ensure fast data access and superior application performance. “Even with 100 mbps connections, without the SteelHead appliances, people would be screaming about poor application performance,” says Ryan.

Since JLL first purchased SteelHead, they have refreshed the global SteelHead implementation with SteelHead EX appliances. In addition to relying on them for WAN optimization, JLL takes advantage of other SteelHead functionality such as the appliances’ Virtual Services Platform (VSP). “We use VSP as the end point to stage content such as Microsoft patches,” explains Ryan.

“When users need to get these patches—and there can be 100 or 200 people in an office—the patches are already staged locally so we don’t have all those people going across the Internet or the WAN to get them.” VSP also enables the company to run other services on the appliance, such as a domain controller, print and file servers.

JLL uses SteelHead HTTP stream splitting to ensure high-quality webcasts and video conferences. SteelHead detects when multiple users are tuning into a live video stream and pulls down only one copy, which it then splits locally. Without this functionality, all users would pull identical copies of that video stream, which would seriously degrade application performance in that office.

JLL is currently evaluating the use of SteelFusion hyper-converged branch infrastructure to centralize all branch data and servers into their data centers, as well as evaluating SteelHead acceleration for Office 365.

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Benefits: Superior application performance supporting growing network traffic

Since the SteelHead appliances were installed, application performance has significantly improved. The average reduction in SSL data going across the network is 60% with the peak data reduction nearing 80%, for a 2.5x capacity increase. Overall (all data types combined) the data reduction is 64%, with a peak data reduction of 90%, a 2.8x capacity increase.

This functionality ensures superior application performance in spite of the company's ever-increasing amount of network traffic. It also makes possible the use of next-generation apps like live video. "Delivering business-critical apps over the Internet saves us millions without sacrificing performance. Riverbed makes it possible," says Edward Wagoner, JLL's Chief Information Officer (CIO), Americas.

SteelHead stream splitting has enabled the IT department to remove Windows media servers from the branch offices. In addition, the use of VSP is making it possible to remove file servers from the branch offices. JLL's Americas region has already removed servers from over 90% of their offices, for significant savings in costs and time.

"We've eliminated the cost of the servers as well as everything else that's associated with them from a management perspective," says Ryan. "SteelHead saves the team time because there are fewer devices to monitor, to patch, and to move when our offices move. The savings just add up."

Most importantly, Riverbed SteelHead technology helps keep JLL's IT environment on the leading edge. "When we go out and talk with others in the industry, we certainly think we're far out in front. The next-generation WAN is getting a lot of press now," Ryan says. "We view our investment in technology as an investment in our people. We're always out there looking at what's new, what's possible and making sure we're taking advantage of it. Riverbed is a part of that."

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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.

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