

## IN BRIEF

### Industry:

- » Construction

### Challenge:

- » Unable to implement a disaster recovery plan with existing network
- » Needed to centralize servers from 30 office branches to two data centers

### Solution:

- » 30 Riverbed Steelhead appliances installed at each branch location
- » Riverbed Central Management Console (CMC)

### Benefits:

- » Consolidated 25 file servers down to three
- » Data recovery window reduced by over two-thirds
- » Bandwidth throughput increased by 8x



# VINCI PLC

## VINCI PLC Introduces Data Recovery Project and Consolidates Branch Offices with Riverbed®

### Background

VINCI PLC (www.vinci.plc.uk) is a subsidiary of VINCI, the world's leading concessions and construction group. A number of specialist subsidiaries operating throughout the UK enable VINCI PLC to offer a comprehensive construction package from inception, through ground investigation and remediation, to completion of the project and beyond to the maintenance of the facility. VINCI PLC has a projected annual turnover of £1.4 billion.

VINCI PLC has 30 regional offices and 100 project sites across the UK running CIFS, MAPI Exchange 2003 and HTTP, using Nortel switches and Cisco routers. They have two data centers based in Watford; one is the production site and the other a data recovery (DR) site.

### Challenge: Improve Disaster Recovery, Consolidate Branch Offices, and Centralize IT Costs

VINCI PLC had a number of IT issues they wanted to resolve. They were experiencing severe delays when running data restores. These would typically take from two to three days to complete, and during this time users would experience delays in application access and data would be lost. To alleviate these issues VINCI PLC decided to install a backup and recovery system using Tivoli Storage Manager (TSM). However, their existing wide-area network (WAN) which had bandwidth of 100Mbps, could not support TSM.

VINCI also wanted to consolidate their current IT infrastructure. They had previously moved their primary IT services to two data centers in Watford and Widnes. However, it was not possible at that time to centralize Windows file sharing applications and this resulted in file, domain, and email servers located in the branch offices.

**“With Riverbed we didn't need to upgrade our bandwidth which was a major cost saving for us.”**

Ben Paddick, Technical Design Architect at VINCI PLC explains, “We were looking to introduce a number of new projects at the same time. Our current backup and disaster recovery strategy had to be improved if we were to reduce the data recovery window, a central IT strategy was crucial in order to control costs, and we wanted to improve speed of application access for our users.”

### Solution: Riverbed Steelhead® Appliances Eliminate Requirement for Additional Bandwidth

VINCI PLC considered upgrading their network bandwidth, but this was not cost effective. They also looked at introducing a thin client strategy, but this required major changes to the way the company worked.

Paddick then looked at WAN optimization solutions. “We started by looking at Tacit (now Packeteer) as we were primarily a Nortel shop, but we also considered Riverbed, Cisco and Juniper,” recalls Paddick.

VINCI PLC undertook a six week trial and ran a series of tests with file servers, Microsoft Exchange, and HTTP comparing Riverbed, Cisco, and Tacit. From these tests a comprehensive report was produced highlighting the benefits of WAN optimization solutions, and in particular the benefits of Riverbed.

"The Riverbed Steelhead appliances stood out from the competition. Key factors were ease of deployment, manageability, and the speed at which applications were accelerated across the WAN. It also meant that we didn't need to upgrade our bandwidth which was a major cost saving for us."

Over a six month period, Paddick and his team were able to remove 25 file servers and five Exchange servers from branch offices and replace them with three file servers and three Exchange servers in the Watford data center, beginning with the consolidation of email services from dispersed Exchange servers. Two thirds of the way through the project, they also included file servers in the consolidation process. Most file data has now been removed from the branch servers and all but two of the Exchange servers have been consolidated.

### Benefits: 8x Increase in Bandwidth, Dispersed Services Centralized and Data Recovery Time Reduced

Since installing the Riverbed Steelhead appliances, VINCI PLC has not only successfully implemented the consolidation and DR projects but also more recently a SAN and SharePoint.

Data is now backed up to a server in the production data center using TSM and then replicated to a secondary data center. "Backups are now disk-based, instant and performed centrally; before backups were done by individuals using tape at the remote offices. The recovery time objective (RTO) has been reduced by over two thirds from 72 hours to less than 24, and we now have a secure system in place," explained Paddick.

He continued, "Thanks to Riverbed, we are now experiencing an 8x increase in bandwidth throughput. Our 100Mbps circuit is now performing like 800Mbps, so we don't require more

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bandwidth. This increase has also allowed us to introduce new applications to users over the WAN, including SharePoint."

Prior to implementing SharePoint, users had access to a very basic intranet system with limited services available. When users accessed the intranet and attempted to download files or images, response times were

slow and sometimes the system would crash. Since installing SharePoint, users now have a very different experience. The intranet now enables employees to submit expense and holiday reports and access graphics, images and the phone book system, allowing VINCI PLC to move towards a paperless office. "Without the Steelhead appliances we could never have considered implementing SharePoint as we just didn't have the required bandwidth. Now, thanks to Riverbed, we've been able to provide employees with a completely new intranet system which delivers far more value than before," noted Paddick.

In addition, VINCI PLC has around 100 project sites across the UK. In the past, some sites would require a dedicated server and DSL connection. This meant providing IT support on site to install the server. However, connectivity would be slow when accessing those applications that couldn't be hosted locally. "We used to keep 50 servers for our site locations and move them around the country as required," recalled Paddick. "Now with the Riverbed CMC and Steelhead appliances, we no longer need those servers. Today we just need a router, DSL, and a Steelhead appliance and the site will run at LAN-like speeds. In addition to application acceleration, we've experienced cost savings in several areas, including server consolidation and licensing costs. We've also improved IT staff productivity and we've reduced the number of support calls from the project sites."

"Thanks to Riverbed we've been able to make more applications and data available over the WAN and use IT assets with less concern about the impact to the network topology. Riverbed has been as much of an enabler to VINCI PLC as Windows XP," concluded Paddick.

### Looking Ahead: Steelhead Mobile software for mobile workers and the Riverbed Services Platform

VINCI PLC is now conducting a trial of Riverbed Steelhead Mobile software to accelerate applications for mobile users. Of particular interest are project sites where DSL is not available, so 3G or satellite access is used instead. The company is also investigating using Steelhead Mobile software to enable home working. In the past this was not possible as access via the VPN was not always available. VINCI PLC is also considering the Riverbed Services Platform (RSP) in order to run print servers, DNS, and IPAM functionality on the Steelhead appliances in a protected zone. This would enable VINCI to consolidate IT infrastructure even further at their branch offices.

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#### **SUMMARY**

VINCI PLC needed to improve their disaster recovery offering, as the existing one resulted in loss of data and poor application performance. The company also wanted to centralize IT costs by consolidating branch office servers to two data centers.

With Riverbed Steelhead appliances, VINCI PLC has installed Tivoli Storage Manager and reduced data recovery from 72 hours to less than 24 hours. Users no longer experience delays in accessing data or loss of data, and the improvement in application acceleration has led to the implementation of new projects, including a storage area network (SAN) and SharePoint.



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About Riverbed

Riverbed Technology is the IT infrastructure performance company. The Riverbed family of wide area network (WAN) optimization solutions liberates businesses from common IT constraints by increasing application performance, enabling consolidation, and providing enterprise-wide network and application visibility – all while eliminating the need to increase bandwidth, storage or servers. Thousands of companies with distributed operations use Riverbed to make their IT infrastructure faster, less expensive and more responsive. Additional information about Riverbed (NASDAQ: RVBD) is available at www.riverbed.com



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