

Data centre transformation delivers bottom-line benefits

 By [Brent Lees](#)

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Transforming and optimising the data centre has benefits across business operations, and can deliver significant bottom-line payback, says Brent Lees, senior product manager at Riverbed Technology.



Traditionally, data centre management has been the domain of the IT department. But as IT moves to underpin all areas of business, the structure and performance of the data centre has become a management issue. Because the data centre is the heart of enterprise operations, the repository of all corporate intellectual property and a key factor in risk and compliance management, the data centre is now management's problem.

Until recently, data centres were seen as cost centres. However, with the advent of new technologies, virtualisation and cloud computing, and the new emphasis on the value of data as a competitive differentiator, optimised data centres can now be the driving force that propels forward-thinking enterprises to new levels of competitiveness. The global focus for data centres now is moving to the cloud, the software-defined data centre and ensuring optimum security and performance while keeping costs to a minimum. In addition, data is now being recognised as an enterprise asset, which needs to be stored, managed and accessed efficiently, in order to support business growth.

Necessary transformation

In order to deliver on their potential, data centres must be transformed. Not only can data centre transformation revolutionise the enterprise's operations - it can also deliver substantial savings and a significant return on investment.

A key area to address is consolidation. By consolidating data centres, enterprises are able to reduce the complexity and cost of running multiple data centres, as well as enabling greater control and security over data. Add to this enterprises that have branch offices in high-risk and remote areas. It is also critical as the increasingly mobile workforce demands access to enterprise applications from remote areas. The consolidation of data centres delivers significantly improved control, as well as reducing operating costs. Riverbed itself runs one main data centre, with one back-up, which delivers significant efficiencies.

However, the consolidated, virtualised data centre could present a challenge if not well executed. A key issue is latency - if the server is based geographically distant from the user or branch office, the user may experience delays in accessing enterprise applications. This hampers productivity and customer service. Effective solutions need to deliver the same performance to the end user remotely as they would if the user was based in the head office. The next-generation data centre should proactively allow the management of application performance in such a way that alerts are triggered before the user has even noticed performance problems.

With virtualisation, there is also the cost of connectivity to consider. Constant communication with a remote server can add significant bandwidth costs. The ideal solution eliminates bandwidth wastage without any loss of application performance.

Positive performance

Riverbed has invested massively in research and development, and the necessary acquisitions to enable them to deliver data centre consolidation, WAN optimisation and performance management tools that significantly improve data centre performance, ensure a future-proof data centre infrastructure, yet still reduce operating costs. IDC assessments of some of their implementations have revealed a significant return on investment (ROI):

- Among Riverbed Steelhead customers deploying the WAN optimisation solution, the aggregate analysis yielded a three-year ROI of 457% and a payback period of 6.9 months.
- On average, customers avoided US\$979,973 in bandwidth costs annually, and saved US\$782,740 on average annually by avoiding the purchase of new servers and tape backup equipment.
- On average, each user has 15.3 hours of more productive time per year.
- Time to market of new revenue-generating opportunities has been improved by 6.5 days.
- The Riverbed Cascade solution delivered a 519% ROI, an average US\$5.1 million in savings per year, and paid for itself in less than six months.
- This solution reduced network and application downtime by 67%, restoring 73 hours of productive time to each user and saving US\$26,057 annually per 100 users.

ABOUT BRENT LEES

Brent is senior product manager at Riverbed Technology. Brent joined Riverbed Technology early in 2012 following a career in IT & Communications spanning over 30 years.

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