riverbed

IN BRIEF

Industry

》 Administrative

Challenges

》 Difficulty monitoring user experience

》 Inability to quickly troubleshoot performance problems

》 Hard to balance bandwidth costs against user experience

》 Difficulty coordinating with software engineers to improve application performance

Solution

》 The AppResponse Xpert appliance deployed in co-location center

》 Real-time and historical view of a wide range of application and network metrics

》 Insight into server and network components of application performance

Benefits

》 Improved oversight of user experience

》 Much faster problem localization and resolution

》 Notable bandwidth cost savings through better monitoring of ISP performance

》 Improved collaboration with software engineers

Hotwire.com

Fly. Sleep. Drive. Cheap.

Hotwire.com is a leading Internet discount travel site dedicated to delivering consistently lower prices on airfare, hotel rooms, car rentals, vacation packages and cruises. The company negotiates deep discounts from its travel suppliers to help sell their excess inventory, and offers advanced search technology to help consumers find the best deal for their needs.

Challenge:

Naturally, Hotwire's IT infrastructure is the very definition of business-critical. The company's success depends on the close cooperation of the networking team, which works to keep the site secure, available and responsive 24/7, and its software engineering team, which is responsible for matching customer searches with available supplier inventory.

However, as is often the case in companies dependent on the Internet for reaching customers, the networking team found itself at somewhat of a disadvantage, says Brian Tam, senior network engineer at Hotwire. "When you're dealing with the Internet, you can't instrument it like you can an application or a server that you own and control. Previous to our purchase of [Riverbed® AppResponse Xpert® Appliance], we didn't have the necessary information we needed to really nail down network problems, so problem solving was often a process of educated guesswork and a lot of iterative tweaks."

Solution:

Looking for a way to give the network team more leverage over the unpredictable nature of the Internet and a better handle on the user experience of Hotwire visitors, the company installed AppResponse Xpert at their co-location facility for an evaluation, which rapidly turned into full-time use. "The appliance was up and running in 30 minutes," says Tam, "and delivering useful information—data that we'd never been able to see before—almost as quickly."

Benefits:

According to Mr. Tam, the benefits delivered by AppResponse Xpert include better insight into and control over the user experience, bandwidth cost savings, faster troubleshooting, and improved collaboration with the software engineering team.

> "The [AppResponse Xpert] solution has given us a scientific approach to managing the site, making the hard data we need easily available for analysis and thus enabling us to forecast, act, and react much more appropriately. And now, when my boss comes down and asks me 'what's up with the network,' I can give him a complete answer—in terms of the impact on our business—in ten minutes or less."

"Not only does the [AppResponse Xpert] deliver a wider range of metrics than what we've been able to gather previously," says Tam, "but the immense flexibility of the user interface lets me zero in on what's important very quickly."

For instance, the Response Time Composition chart in AppResponse Xpert reveals the several components of application response and therefore of the user experience.

"I can see at a glance whether we're dealing with a back-end or network problem and get the right team members involved from the very beginning," says Mr. Tam. "For instance, time to first byte gives me important data about server response from our customer's point of view, while things like packet retransmission rate speak to the state of the network. I can slice and dice the data any way I like, and drill down from a high-level view all the way to the destination ISP or even IP address of the affected customer. So not only do we solve problems faster, but we can give the software engineers the data they need to improve application performance from their end, too."

These drill-downs, and the ability of AppResponse Xpert to analyze and reveal details about the Internet cloud—such as the routes and the Autonomous Systems through which users are accessing the Hotwire site—play an important part in delivering bandwidth cost savings.

"Our co-location provider enables us to change which ISPs we use to connect to the Internet very quickly," says Tam. "We're multihomed, and AppResponse Xpert gives us a very clear picture of which ISPs the majority of our customers are using to access our site. By then routing traffic through lower-cost ISPs that nonetheless deliver good performance, we're enjoying a considerable cost savings; in this way, it's like the [AppResponse Xpert] paid for itself in a couple of months!"

Also important is the historical data furnished by AppResponse Xpert. "The fact that the box not only delivers real-time data, but keeps historical data so easily accessible, is invaluable for long-term troubleshooting of subtle application problems," says Tam.

The Bottom Line

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About Riverbed

Riverbed delivers performance for the globally connected enterprise. With Riverbed, enterprises can successfully and intelligently implement strategic initiatives such as virtualization, consolidation, cloud computing, and disaster recovery without fear of compromising performance. By giving enterprises the platform they need to understand, optimize and consolidate their IT, Riverbed helps enterprises to build a fast, fluid and dynamic IT architecture that aligns with the business needs of the organization. Additional information about Riverbed (NASDAQ: RVBD) is available at **www.riverbed.com**.

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2005, 2006, 2007, 2008, 2009, 2011

CRN Tech Innovator Awards 2011

GCN LAB

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