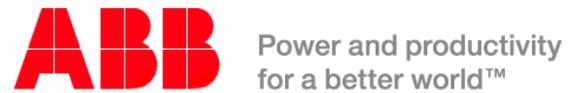


ABB



## Riverbed visibility ensures peak performance of core apps whose outage costs \$1 million/day

ABB is a global leader in power and automation technologies. Based in Zurich, Switzerland, the company employs 150,000 people and operates in approximately 100 countries.

### Challenge: One person manages network; it is always blamed when application issues arise

ABB's North American operations employ about 30,000 people in manufacturing, service and other facilities across the continent. As ABB North America's network infrastructure and operations manager, Michael Kerkau has the sole responsibility for the performance of the wide area network that connects those 30,000 people with each other and with the company's data center in Raleigh, North Carolina. "When I say I'm head of network infrastructure for North America, I am network infrastructure for North America," Kerkau jokes.

Kerkau's experience is similar to that of probably most network managers—when an application running over the network performs poorly, the network is what people blame. "For us, the network is not the cause 80 to 90% of the time, but it is the first thing people point to," Kerkau says. In the past, proving that the network wasn't the cause of application performance issues took up 25 to 40% of Kerkau's time. As the only person maintaining the network, he wanted to spend his time in more valuable ways.

ABB's most important applications are older, homegrown products that haven't scaled well, yet are absolutely critical to the business. The most critical is a suite called Nextra CCP, which is involved in everything from ordering and pricing to manufacturing and shipping. It is also the most problematic. "These applications are engaged thousands of times an hour and it's a real hit to the business when they are not performing well," Kerkau says. "Our business leaders tell me that an outage can cost their business \$1,000,000 a day."

Another complication for Kerkau is the use of Cisco WAAS appliances across the network. Although these appliances accelerate traffic across the WAN, they were obscuring the end-user experience, making it more difficult for Kerkau to rule out the network when there was an application performance issue.

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## In Brief

### Challenges

- One person must manage N. American network serving 30K employees
- Legacy applications haven't scaled well but are absolutely critical to the business
- Network is often mistakenly blamed for problems caused by the applications
- End-user experience is obscured by Cisco WAN optimization tool

### Solution

- SteelCentral Web Analyzer to troubleshoot application performance issues
- Riverbed Professional Services on call to perform deep-dive analysis and resolve performance issues using SteelCentral AppInternals, SteelCentral AppResponse, and SteelCentral Transaction Analyzer

### Benefits

- Performance problems with critical legacy applications are identified and resolved more quickly
- Network manager spends less time troubleshooting; gets back 40 to 64 hours/month
- Network is no longer blamed for all performance issues; visibility into where problems are occurring allows issues to be addressed without finger pointing or emotion
- Long-term application performance issues are finally being addressed
- Applications owners use Web Analyzer to proactively address performance issues

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## Solution: SteelCentral Web Analyzer and Riverbed Professional Services

Kerkau has set up a two-part strategy based on Riverbed® SteelCentral™ solutions for ensuring application performance over the network. The first part is his own use of SteelCentral™ Web Analyzer, which gives him the insight into the end-user experience that he lost when the Cisco WAAS appliances were installed. With Web Analyzer he can see end-to-end application performance, track key performance metrics, and get a granular analysis of application behavior, including response time breakdown by server delay, network delay and browser render time.

"I'm using Web Analyzer to be the canary in the coal mine to tell me when we might be experiencing issues with certain applications," Kerkau explains. Because Web Analyzer lets Kerkau track application performance, he can quickly shift the finger of blame away from the network when it is performing well, to the more common causes of application performance issues—the applications themselves and/or the servers they run on.

Sometimes it's clear that an issue needs a more thorough investigation. When that happens Kerkau turns to the application and network performance management expertise of Riverbed Professional Services (RPS).

RPS provides in-depth troubleshooting support by leveraging solutions like SteelCentral™ Transaction Analyzer and SteelCentral™ ApplInternals, which deliver functionality such as multiple related packet traces for individual user transactions across multiple server tiers, code-level transaction tracing and deep application component monitoring. Armed with these solutions and troubleshooting know-how, RPS delivers a faster time to resolution. “I say sometimes that I need two of me and RPS is always the first call that I make when it’s time to do a deep dive,” Kerkau says.

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“Web Analyzer is the tool I use because it lets me focus on what I’ve been working on over the last several years—not network infrastructure issues, not latency issues, but application performance issues.”

Kerkau

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## Benefits: Actionable intelligence speeds troubleshooting and resolves long-term issues

Using Web Analyzer gives Kerkau something he didn’t have before—“actionable intelligence,” which is how he describes the insight into application performance he now has. For example, in one case of slow application performance, he could see two minutes of redirects before a page started loading. Very quickly he was able to determine that what might have been thought of as a slow network was actually a front-end delay at the application server. And once the application’s owners had this information, they could use it to improve the performance of the application, rather than assuming it was a network issue that someone else would address.

Kerkau estimates that prior to the use of Web Analyzer, he spent 25 to 40% of his time troubleshooting these sorts of problems, or at least 10 to 16 hours per week. Today, with Web Analyzer, “I’m down to about an hour a week, simply because I have the opportunity to drive the discussion where it belongs in the first place.”

Kerkau is working to spread the use of Web Analyzer throughout ABB’s North American operations so that the application owners can use it themselves to rule out network problems and get to the real problem more

quickly. This is already happening to some extent and it is working very well. “When there were issues, I used to get all of the calls,” he explains. “Instead, now I’m hearing stories that the application owners are using the solution to try to track down issues that are happening with their applications, their servers, and their own configurations, to improve their own application performance. Because I’m the only network guy, it’s huge that we now have application owners talking to application users about application problems. That’s enormous.”

In addition to speeding up the troubleshooting process, actionable intelligence from Web Analyzer is helping Kerkau get issues resolved that have lingered for years. In one example, “It really was two years of solid, highly escalated effort,” he explains. “Then we brought Web Analyzer to bear against that effort and it immediately showed the evidence that we needed to tell the applications team and the business, ‘This looks like your problem.’ We hadn’t been able to get the businesses and the application owners fully engaged because we couldn’t find enough evidence that would actually point in their direction.”

When Kerkau brings in RPS, the benefits are similar—the cause of an issue is quickly identified so that the right people can start working to solve it. As an example, he tells of communications problems between ABB North America’s corporate network and a newly acquired company. “The communication was just being choked off between the two companies so they took this issue and loaded it on my desk as a network problem,” he explains. “I got RPS involved and by using SteelCentral Transaction Analyzer, we were able to identify specific traffic leaving the corporate network, leaving our Raleigh data center, and then stopping when it arrived at the firewall of the other business.”

Prior to this, the other company had just assumed the problem was Kerkau’s. “The only way to break through that was to have incontrovertible evidence. And Riverbed provided that,” he says.

For Kerkau, Riverbed SteelCentral solutions and professional services provide concrete proof of what he has learned from experience—that 80 to 90% of the time, what looks like network problems are usually something else. That proof benefits Kerkau and his company by getting the right people working on the right fixes with less delay in solving problems that interfere with application performance.

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## Summary

Proving that the network wasn’t the cause of application performance issues used to take up 25% to 40% of ABB’s network manager’s time. As the only person maintaining a network that connects all North American operations, he wanted to spend his time more valuably. His job is complicated by the fact that ABB’s most important applications are older, homegrown products that haven’t scaled well, yet are absolutely critical to the business. And outage of one of the most critical applications can cost up to \$1,000,000/day.

Today the network manager uses SteelCentral Web Analyzer to see end-to-end application performance. The actionable intelligence he gains has dropped the 10 to 16 hours per week he formerly spend trouble shooting to about an hour a week. ABB calls on Riverbed Professional Services, who bring in SteelCentral AppInternals, SteelCentral AppResponse, and SteelCentral Transaction Analyzer, for deep-dive analyses. Riverbed SteelCentral solutions and professional services get the right people working on the right fixes with less delay.

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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](http://riverbed.com).

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