
End User Experience Monitoring Improves Workforce Productivity for Riverbed and Our Customers

As a corporation with annual revenues exceeding \$1 billion, Riverbed® is in the same boat with our 30,000-plus customers: We rely on a high-performing infrastructure to compete effectively and continue to grow.

However, as a leading supplier of digital performance solutions, we have the opportunity to drive innovation by deploying Riverbed products in our environment and using our internal experience to make those products better. Those two goals dovetail nicely to help Riverbed create an excellent user experience internally and deliver higher-quality technology to our customers.

Riverbed for Riverbed (R4R) is our internal program that strives to meet these needs. To support this goal, we deploy our digital performance platform, including SteelCentral for digital experience management,

SteelHead for industry-leading WAN acceleration, SteelConnect for next-generation software-defined networking, and SteelFusion for business continuity and security at the edge.

Two years ago, our IT executive team saw an opportunity to use R4R to improve a key internal process, namely, quarter-end sales activity. Like most tech companies, the last 15 days of every quarter are fast-paced, particularly for the manufacturing and sales operations groups who are pushing to meet quarter-end objectives for product shipments and revenue recognition. If an order gets stuck, that revenue won't get realized until the next quarter. Slow performance can have a real impact on earnings and share prices; a single poorly timed infrastructure problem can cause a chain reaction that affects multiple parts of the organization.

In Brief

Challenges

- Poor performance impacting quarterly financial processes and bookings
- Difficulty resolving performance issues impacting business-critical SaaS
- Delays in troubleshooting complex application problems

Solution

- Riverbed SteelCentral, including Aternity for End-User Experience Monitoring

Benefits

- 60% improvement in the performance of key processes in our critical SaaS application
- Hold SaaS vendors accountable for performance issues impacting end-users
- Quickly triage problems and pinpoint the source: network, infrastructure, application, or user device to reduce MTTR
- Proactively identify issues that are impacting workforce productivity

Ensuring Availability of Critical Functions

By reaching into the Riverbed toolkit, our IT team was able to better ensure the availability and performance of critical functions. It starts with leveraging Riverbed's digital experience management solution, SteelCentral, to provide integrated monitoring from the end-user's device through the network and computing infrastructure to the application. More specifically for our needs, SteelCentral pulls all this information together into a single portal view, dynamically mapping the dependencies between the devices, network, infrastructure, and applications.

What is unique is that Riverbed's solution can monitor these critical functions from the point of consumption and understand how they render on the users' devices themselves. "Aternity [SteelCentral's end user experience

monitoring solution] is very powerful, giving both an early indication something's wrong and a good direction in which to troubleshoot, because it measures from the point of consumption—the user's device," says Peter Baskette, senior director of IT. "It translates into less downtime overall, when there's an issue, and very often we're able to identify an issue that may happen or is happening but has yet to affect the business itself and intervene before it even manifests as a problem."

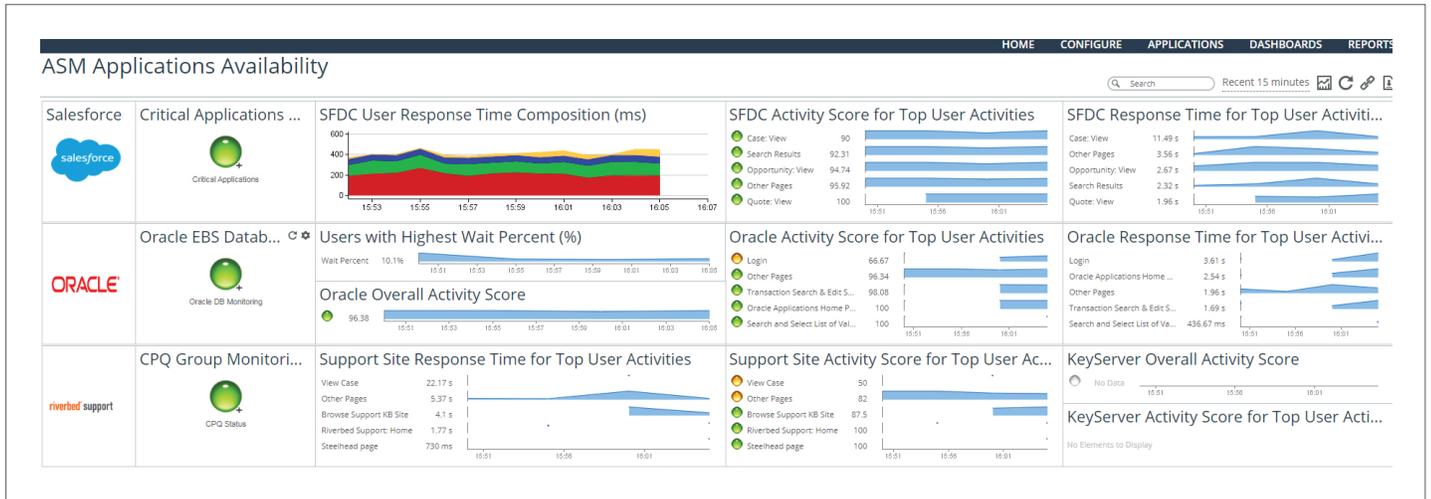


Figure 1
SteelCentral Portal showing application status at a glance to ensure the availability of critical business functions.

Like most organizations, our IT is tasked with justifying its value to the business. “The challenge is that we’re actually delivering the presence of absence,” says Baskette. “That row of green [in SteelCentral] is a tangible indicator of smooth sailing, and that has benefits that accrue up and down the chain.” With Riverbed IT keeping the systems running at peak performance, the rest of the company is free to focus on the business, closing quarters as planned and booking every dollar they can.

Delivering the ‘So-What’

R4R is one of the company’s key strategic initiatives, so it’s visible all the way up to the executive staff. There’s no doubt that using our own technology internally both improves the quality of our products and points the way to feature enhancements that provide differentiation in the marketplace. However, our management is under pressure to show how corporate investments contribute to the bottom line—they never stop asking, “So what? How does this project help us achieve our strategic goals?”

Fortunately, those questions have definitive answers. Here are three of the many ways that Riverbed for Riverbed is delivering business value, day after day.

Improved workforce productivity

IT can look at each team member’s device health and user experience to make sure that all systems are up and running (see Figure 2). Instead of waiting for email alerts and user complaints, our technicians monitor the health of the systems in real time and respond proactively, often fixing problems without the users even knowing. IT can quantify the impact of poor performance on workforce productivity and prioritize fixes and development efforts accordingly.

Streamlined troubleshooting

Technicians quickly triage problems and pinpoint the source: network, infrastructure, application, or user device. Instead of sampling, Riverbed captures infrastructure metrics at 1-second intervals so the applications and operations teams have all the information they need to drill down into the problem, shortening the time to resolution substantially. This granular information is essential for mapping the dynamic relationships common in microservices and containerized environments and for diagnosing intermittent problems.

Ensuring SaaS performance

SaaS delivers significant business value to us, but the benefits come at a price—we lose visibility into and control of the environment. Riverbed SteelCentral gives us powerful diagnostic tools to help us identify and diagnose performance issues impacting the end user's experience. When a user complains about slow response, IT can measure the overall delay broken down by client, network, and backend. When we report a problem to the cloud provider, our technicians can share hard data with their counterparts at the provider's service desk. As a result, the two IT groups come to agreement sooner and the problem gets resolved quicker.

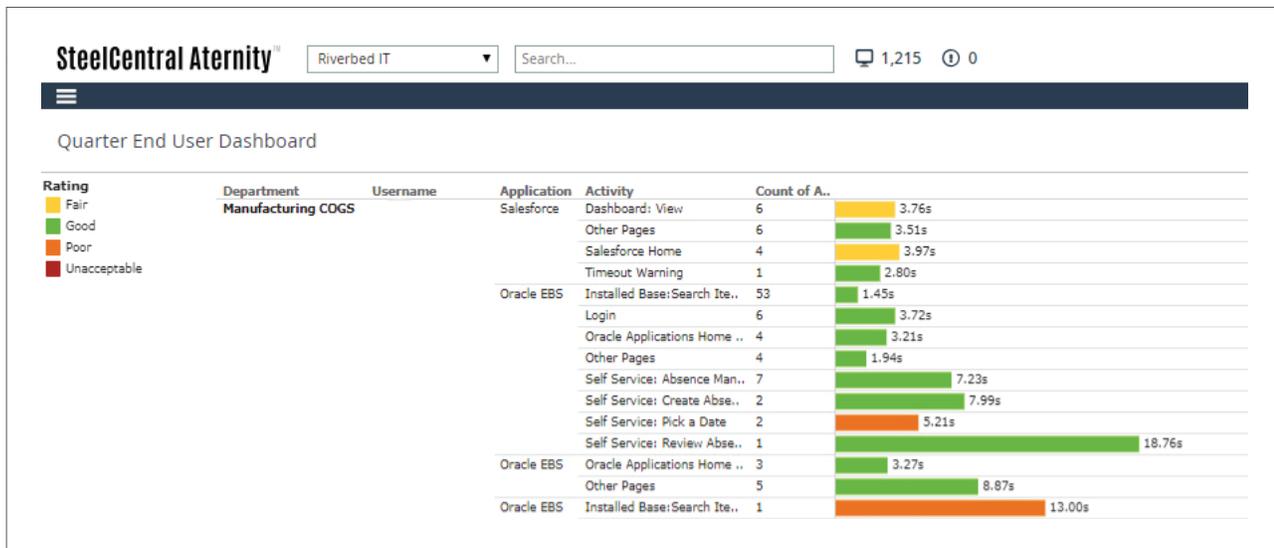


Figure 2
Aternity quarter-end dashboard.

Recently, our IT team noticed intermittent performance degradation in an important SaaS collaboration tool. Aternity showed that there was clearly a deviation from the norm, but the vendor would not proactively engage with Riverbed's problem ticket, or even acknowledge a problem on its end. That's when the Aternity data came in handy. Our IT team found that 91 percent of the

delay occurred in the backend, that is, the SaaS provider's infrastructure. Ultimately, the provider accepted that assessment and located the problem, which not only improved performance by 60% for Riverbed but also for other tenants on the provider's host.

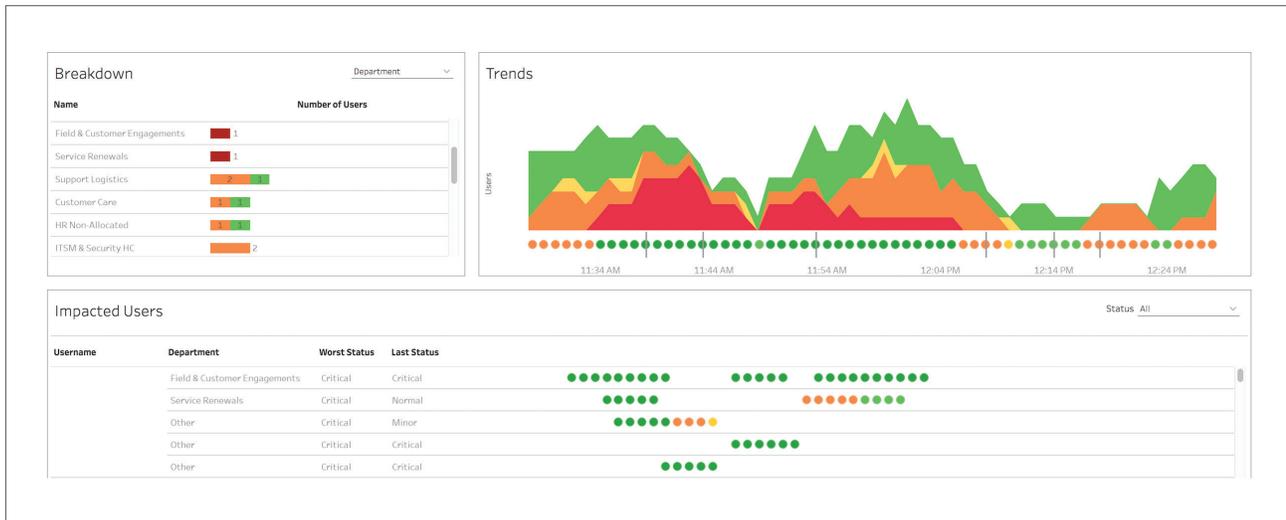


Figure 3
Aternity data is able to show the breakdown of SaaS application performance.

Moving Forward

For the Riverbed IT team, there’s no time to rest on our laurels—continuous improvement is the watchword. We continue to fine-tune the quarter-end closing process and find new ways to optimize performance. As Riverbed IT moves more and more applications to the cloud, we’ll have additional opportunities to leverage our technology to plan migrations and monitor performance on the provider side. We’re also focused on using other parts of our Digital Performance Platform, such as SteelConnect for SD-WAN to improve network connectivity and reduce operational costs.

Continuous improvement is also the watchword for our products. We work side-by-side with our development teams to provide input from the end user’s perspective, deploying new versions in our labs and in production

environments so that we can road test our products, find bugs before our customers do, and provide insights into how the product is actually used. It all comes down to making the best products possible.

CIO Rich Hillebrecht talks about the key takeaways thus far: “Managing the digital experience doesn’t happen in silos—you need integrated visibility into the end-user’s device, network, applications, and infrastructure to find and fix problems faster, improve workforce productivity, and protect revenues.”

About Riverbed

Riverbed®, The Digital Performance Company™, enables organizations to maximize digital performance across every aspect of their business, allowing customers to rethink possible. Riverbed’s unified and integrated Digital Performance Platform™ brings together a powerful combination of Digital Experience, Cloud Networking and Cloud Edge solutions that provides a modern IT architecture for the digital enterprise, delivering new levels of operational agility and dramatically accelerating business performance and outcomes. At more than \$1 billion in annual revenue, Riverbed’s 30,000+ customers include 98% of the *Fortune* 100 and 100% of the *Forbes* Global 100. Learn more at riverbed.com.

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