

10 Reasons to Use Synthetic Testing vs. Real User Monitoring

In today's application-centric world, end-user performance is the metric by which businesses evaluate the performance of their web applications. With users demanding Google-like page response times, it is increasingly important to constantly monitor the performance and availability of your applications.

Achieving a holistic view of your critical applications requires the integration of multiple approaches and instrumentation across the application delivery chain. The two primary approaches currently in use for measuring end-user monitoring are:

- Real user monitoring (RUM)
- Synthetic testing

Real User Monitoring vs. Synthetic Testing

Actually real user monitoring and synthetic testing are complementary. RUM measures users' actual experiences as they interact with applications while synthetic testing uses distributed test engines to proactively test availability and performance of your applications and sites remotely – even when there is no traffic. An organization should look at using a combination of these approaches for broad end-user experience monitoring and deep-dive diagnostic capabilities across the entire application delivery infrastructure.

Top Reasons to Use Synthetic Testing

So, why and when should you use synthetic testing? Here are the top 10 reasons:

1. Monitor your application availability 24 x 7 – even during off hours
2. It lets YOU, rather than the end users, be the first to know your application is down
3. Know if your remote site is reachable
4. Understand the performance impact that under-performing third-party services have on your customer-facing applications
5. Monitor performance availability of SaaS applications
6. Test business-to-business web services that use SOAP, REST or other web services technologies
7. Monitor critical databases queries for availability
8. Objectively measure service-level agreements (SLAs)
9. Baseline and analyze performance trends across geographies
10. Complement end-user experience monitoring by synthetically monitoring availability during periods of low traffic, especially overnight when most users are offline.

Why use Synthetic and Real User Monitoring Together

Real user monitoring or end-user experience monitoring provides insight into how your users actually interact with your website or application. It provides information as to the uptime and performance of your critical business transactions and answers questions such as:

- What is the performance of the pages?
- What was the experience of groups of users for a specific web application – by web application, region, platform, and browser type?
- Which objects on the page are slowest?
- Is the delay due to the network or server?
- What errors contributed to the delay?
- How does this issue trend over time?
- How do overall page times (or other performance indicators) vary by business groups?

Using synthetic and real user monitoring together gives you a complete view of performance from the end user perspective, especially during times of low use.

SteelCentral NetSensor Synthetic Testing and More...

Riverbed® SteelCentral™ NetSensor performs broad infrastructure monitoring and troubleshooting to support the needs of both network and application operations teams. It uses SNMP and WMI polling as well as synthetic testing to capture availability and performance information from remote infrastructure components, including network devices, servers, applications, and windows services.

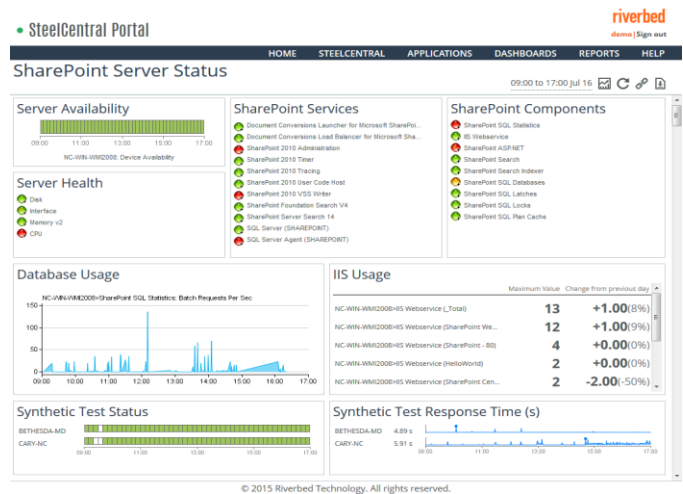


Figure 1. This NetSensor dashboard shows both WMI metrics and synthetic test results to give a complete overview of SharePoint availability and performance.

NetSensor provides a variety of synthetic tests, including Ping, DNS, TCP, LDAP, databases, HTTP, external scripts for creating your own tests, and Selenium tests for recording and playing back a webs transaction. It ships with sample Selenium tests for SharePoint, Office 365, and SaaS applications.

NetSensor displays its data on both a historical and real-time basis in SteelCentral Portal to provide integrated viewing with end-user experience monitoring from SteelCentral AppInternals and SteelCentral AppResponse.

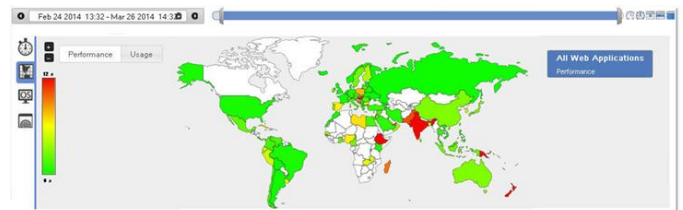


Figure 2. SteelCentral AppResponse provides visibility into how users experience performance geographically.

Portal also arms your organization with the necessary data for greater multi-dimensional understanding of performance across domains, providing the ability to view network, application, infrastructure, and end-user experience metrics from a single, unified user interface.

About Riverbed

Riverbed Technology, the leader in application performance infrastructure, provides 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. Learn more at riverbed.com.

