APPDYNAMICS

5 Questions You Need to Ask About End-User Monitoring

There are many ways for customers to engage with your business today. Whether it's through a website or mobile app, it's become increasingly important for enterprises to raise the bar and provide end users with high-performing and functionally-rich applications.

To do so, however, enterprises need to have a deep understanding of the relationship between application performance and the quality of the end-user experience. This requires monitoring how and where customers are connecting with your business — tracking every tap, swipe, and click.

End-user monitoring can provide a bird's-eye view of every user journey to help identify bottlenecks and service interruptions, as well as predict future problems. Monitoring empowers teams to take proactive action when user or system behavior indicates a looming failure or slowdown. It also provides collective insight into user interactions that can be applied to improve user experience.

However, this is no easy feat. The profusion of data that businesses collect from each interaction can cause an information overload, often hindering the ability to parse the most valuable facts.

The following five questions should serve as springboards to implementing effective end-user monitoring, hopefully helping to cut through the complexity that so often plagues this process.

1. How are your omni-channel users behaving across different platforms?

You need comprehensive information to understand how end users interact with your applications. This means getting visibility into user behaviors within and across channels, including Android and iOS apps, as well as desktop and mobile browsers. You need to be able to analyze the entire user journey, comparing user actions with application performance.

Take, for instance, a retail customer who goes through the entire shopping process only to abandon their cart at the end. Without a complete view of the interaction, it's challenging to pinpoint exactly why they didn't complete the transaction. Maybe they were unsatisfied with the final price and decided to look elsewhere. Or maybe a technical glitch caused the process to stall, creating frustration that resulted in abandonment.

Detailed monitoring might reveal that the customer with the abandoned cart eventually decided to finish shopping on another channel, switching from mobile to desktop browsers, because the mobile app was sluggish or unresponsive. Drilling down even further, you could pinpoint the exact component that caused the delay, taking the guesswork out of problem solving.

2. What's your mean time to resolution (MTTR), and can you get to the root cause of an issue quickly?

The causes of errors and other issues aren't important to users; they simply want them solved quickly or, ideally, not to happen at all. Decreasing MTTR is about improving the speed of finding the root cause of problems. As application infrastructures support growing numbers of services and features, wading through huge amounts of data to troubleshoot problems becomes increasingly inefficient and time-consuming. To successfully decrease your MTTR, you need to deploy a modern application performance monitoring solution that can provide:

- **Real-time alerts that notify the appropriate parties as soon as a set of problem conditions occur**
- **Detailed documentation of each error, including user and device demographic data**
- **Dashboard visualizations that display the entire user journey and allow drill-down into application components**

Having this information available tells you more than a cryptic log entry can. Comprehensive user monitoring and alerting can give you an early warning of a developing problem and record what happened before, during, and after the error. With detailed information automatically collected and readily at hand, you are well equipped to quickly diagnose and resolve any end-user performance issues that may occur.

3. Are you tracking the right KPIs?

Key performance indicators (KPIs) encompass more than just business metrics such as conversion rates. KPIs need to illustrate how applications are performing and how satisfied users are with that performance.

For example, a low abandonment rate is a good indicator that your website navigation is reliable and generally error-free, and as a result, encourages end users to stay and browse rather than leave in frustration at frequent errors and slow responses.

Measuring KPIs should start at the beginning of a user's interaction with your application, from the very first click. Here, you need to determine baseline figures for geographic, device, platform, and connection performance. This data is important when you're trying to determine if any issues are confined to a certain region, channel, or connection type.

As the user journey continues, metrics such as network speed, error types and frequencies, crash rates, transaction timing, and abandonment rates become increasingly valuable. These indicators allow you to measure the full user experience from beginning to end, even if the interaction lasts only a few seconds.

Finally, you need to assess the relationship between each KPI. Only then can you determine whether applications are delivering adequate performance for all users.

4. Are you solving problems for the right user set?

Every user interaction is not created equally. Likewise, each channel often needs a different solution. The central idea here is ascertaining how to approach problems, and it starts with knowing who is experiencing them and why. If, for instance, users are having trouble getting or staying connected to your servers, the issue may lie within any number of factors, including a user's device, region, or connection.

Without a comprehensive end-user monitoring solution, it would be difficult to determine whether, for example, the problem is with Apple users and you simply need to update your API to adhere to the newest iOS networking guidelines, or if the problem goes deeper, requiring a complete overhaul of your networking protocols. Similarly, you may not need to devote a large amount of resources to fix an issue that only affects a small subset of user experiences, such as those who are using an outdated browser.

Knowing who your users are and how many of them are experiencing an issue can let you know exactly how serious it is, ensuring that you won't use a jackhammer to solve it when a rubber mallet will do.

5. How are software applications impacting your business outcomes?

Today's consumers have little patience for slow websites and buggy applications. They have a plethora of choices, and they won't waste time on technology that doesn't work. They'll simply move on to the next solution. Continual problems will almost certainly result in lost reputation, market share, and ultimately, revenue.

It's imperative that you identify and remedy problems that affect your bottom line quickly and efficiently. Otherwise, you run the risk of losing not just individual users, but entire user bases. Successful user monitoring isn't just a DevOps issue, but a business-building one as well.

Let's look at a couple of common problems and how APM can help:

- **Impact of third-party code embedded in your site.** Modern web design frequently leverages third-party services to gather business intelligence data or support application functionality (like Google Analytics and Google Maps).

  These services typically embed JavaScript in browser pages and make external calls directly from the client. If your end-user monitoring is incomplete, you won't see performance regressions introduced by slow third-party calls. As a result, your data center may show excellent performance, when in reality there was a frustrated customer who experienced a slow load time and abandoned your website, resulting in revenue loss.

- **Device incompatibility with your site.** Users can now access your site from numerous mobile devices, which is great for business, but can lead to problems related to a particular combination of device, operating system, and browser version. Different geographic locations also have their own device preferences, so if your site or app doesn't work well with the leading mobile choice in Germany, then don't expect record sales in this market!

APM solves both problems by giving you full visibility of all end-user activity, including affiliate calls and a performance breakdown of client device by geo, manufacturer, O/S, and browser type so you can quickly identify and resolve problems with affiliate content and device incompatibility.

In summary

In truth, application performance management is only as good as the framework that supports it. AppDynamics provides effective application performance management, allowing you to see the whole picture. Our software works seamlessly with your existing applications, providing insights and helping you maximize performance.

Learn more about our solutions
or start your **15-day free trial.**

Check it out >