

Competitive pressures are forcing you to evaluate and align your organizational structure to be sure that your entire enterprise is focused on corporate goals and objectives. This shift is forcing you to approach business operation with an eye toward customer service, proactive management, and time-to-resolution. As a result, many are changing strategy and focusing on the user experience while continuing to deliver traditional IT products and services.

They recognize that simply managing individual system and network components is no longer enough—providing an outstanding user experience, in addition to performing conventional system management, is the new gold standard for IT organizations. Many traditional IT monitoring tools fail to focus on total service availability, performance, and value from the user point of view. The need for clear visibility into the end-user experience—including the ability to measure and monitor what users actually do—is essential for making the transition to a service-oriented focus to provide the best possible user experience.

# Improve visibility and control end user's IT experience

Today, both synthetic and real-user monitoring play key roles in providing a better understanding of user behavior. Synthetic monitoring simulates business transactions against production applications at set intervals, providing consistent, predictable measurements used to understand application performance trends and baselines. Synthetic monitors can also proactively identify problems when systems are idle and application administrators are not performing health checks.

Real-user monitoring, on the other hand, measures performance and availability when real users are accessing the application. With the ability to measure every user, regardless of device and location, real-user monitoring provides critical insight into the behavior of real users. This is particularly important as compared usage of common applications can vary dramatically. User data generated by real-user monitoring can be compared to baseline performance and availability data generated by synthetic monitoring to identify negative trends that need to be addressed before users are impacted. Comprehensive application performance management requires a balanced approach of using both synthetic and real user monitoring techniques.

**Figure 1.** HP End User Management lets you proactively identify application performance problems before users are impacted



#### **How it works**

HP End User Management software combines industry-leading synthetic (HP Business Process Monitor) and real-user monitoring (HP Real User Monitor) to give your technology organization a high degree of visibility into and control over the complete user experience. Application performance and availability information collected by these two monitors are viewed in combined reports and dashboards. Bringing together this information and dynamically linking it to the infrastructure, provides a comprehensive, actionable, and relevant context to all stakeholders.

Designed to help align IT with business, the software provides comprehensive and integrated user monitoring. It provides real-time visibility into the user's quality of experience (QoE), combining real-user visibility with consistency and the proactive nature of synthetic monitoring. And it offers complete coverage of your end user's experience, enabling your organization to rapidly isolate and quantify the scope of an application issue, gauge the customer and business impact, and thereby prioritize and respond appropriately.

HP End User Management software lets you to:

- Prioritize IT response based on customer and business impact.
- Identify application performance and availability issues pro-actively before they impact the customer and gain visibility into real user behavior patterns.
- Monitor the end-user experience of business applications, including those deployed to virtual and cloud environments.
- Enables "drill down" into HP infrastructure monitoring, application diagnostics, and transaction tracing capabilities to resolve problems more quickly.
- Measures application performance and availability from outside your company's firewall and from multiple locations using HP SaaS offerings.

## Be one step ahead

HP Business Process Monitor software lets your staff use synthetic transactions—from multiple locations inside or outside your firewall—to identify availability and performance issues before they affect web or mobile customers. This lets you capture accurate, consistent, and repeatable performance and availability metrics to automatically create a system baseline. Using this baseline, HP Business Process Monitor software identifies key variations and trends that let you plan capacity effectively and quantify the value of IT investments or changes.

When problems arise, HP Business Process Monitor software lets you isolate them by location, server, application, module, and other factors for faster identification and resolution. The software provides a transaction breakdown by protocol to isolate the source of the problem. It also integrates with HP Diagnostics, allowing IT support teams to drill down quickly to the root cause of a problematic transaction.

HP Business Process Monitor software executes scripts that the Virtual User Generator or True Client software generates in production to create active transactions that simulate complex business processes against applications. It's similar to having real users access the application. As many customers already use the Virtual User Generator to create load testing scripts for HP LoadRunner software or HP Performance Center software, these existing scripts can be reused for production monitoring within HP Business Process Monitor. This lets you save time and effort creating end-user monitors.



**Figure 2.** Monitoring of the native mobile end user experience

# Get organized - Monitor All users, All locations, All the time.

HP Real User Monitor software lets you measure the true experience of all of your users, all the time and all locations. You can then gauge the business impact of performance issues and outages, and isolate user trends in detail. Using the software installed on a network probe, HP Real User Monitor software listens to every request and response sent over TCP/IP. It organizes the data by session for further analysis and increases collaboration between the monitoring and development teams. The software shows each navigation path and tracks the number of users. Additionally there is new server level probe and web client available, which enable more detailed data capture of the server and end user level transactions. The latest addition to HP Real User Monitoring is the native Android application monitor, which allow you to capture the real native mobile user experience, including the Mobile Application and operating systemspecific data related to end user actions. This usage information can improve capacity planning accuracy, and create quality and performance testing scenarios. For example:

• Application support teams can quickly identify and replay transactions to better understand user interaction with the application (including mobile applications).

- Development teams can replay to see specific application error codes and most frequently used end user transactions to determine what user actions triggered the problem.
- Customer service representatives can replay the user's session to assist in resolving the problem live.

Your IT staff can then further analyze data from user interactions to determine if users in specific locations are experiencing performance issues. This data defines the scope of issues and identifies affected end users. IT can collect application statistics for trend analysis to manage OoE, proactively intervene before issues become visible to end users, and avoid costly violations of service level agreements (SLAs).

#### Broad range of protocol and application support

HP End User Management software leverages more than 12 years of experience in application testing, tuning, monitoring, and management to provide accurate emulation and measurement of end user business processes for Web and non-Web environments, native mobile applications, and packaged applications, including Oracle Siebel, SAP, Oracle PeopleSoft, Oracle Applications, Citrix, service-oriented architecture (SOA), and others. The software also supports multinational and multilingual environments.

As multi-vendor IT infrastructures grow to include SOAs, composite applications, and complex technologies such as mobile applications, virtualization, and cloud, organizations are constantly challenged to pinpoint problem areas among an ever-increasing range of possibilities. With end-user monitoring and a run-time service model in place, your organization can quickly see the relationships between the infrastructure and the application performance, narrowing down the scope of detected problems and allocating the issue to the proper domain group.

## Working together

HP End User Management software is an integrated component of HP Application Performance Management software. Working with other products within the HP Application Performance solution can help your IT organization provide a higher quality of experience for today's complex applications. By linking end-user monitoring data with the infrastructure performance in our Business Service Management Run-time Service model, allows IT staff to quickly identify infrastructure-related root cause of end-user problems. The software can be deployed inhouse using HP and partner services or through HP Software as a Service (SaaS).

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