Predict system behavior and application performance.

How do you know whether your mission-critical applications meet the performance and scalability that your business requires? How do you decrease the risk of poor performance or catastrophic failure when deploying to production? Are your applications giving the best possible performance?

Enterprise applications are becoming increasingly complex. With new Rich Internet Applications leveraging Web 2.0 technologies, there are many moving parts, which can easily become points of failure if not tested prior to deployment. HP LoadRunner software, used by thousands of businesses around the world, is a comprehensive testing solution for testing system behavior and performance. It enables an efficient and robust means to verifying that your application’s architecture is built for more efficient performance and reliability.

HP LoadRunner helps you:
- Test a broad range of applications including the latest Rich Internet Applications with Web 2.0 technologies, ERP/CRM applications, as well as applications with legacy technologies
- Identify and reduce performance bottlenecks before deploying to avoid performance issues in production.
- Obtain an accurate picture of end-to-end system performance before going live, and verify that new or upgraded applications meet specified performance requirements.

How HP LoadRunner works

Using minimal hardware resources, HP LoadRunner emulates hundreds or thousands of concurrent users to apply production workloads to almost any application platform or environment. HP LoadRunner stresses an application from end-to-end—applying consistent, measurable, and repeatable loads—then uses the data to identify scalability issues that can affect real users in production.

HP LoadRunner software is the industry standard software for performance validation. Generate real life load. Identify and diagnose problems. Deploy with high quality and confidence.
As it drives load against the system, HP LoadRunner captures end-user response times for business processes and transactions to determine whether the application can meet the required service level agreements (SLAs). Non-intrusive, real-time performance monitors obtain and display performance data from every tier, server, and system component. At the same time, HP Diagnostics collects application tier and code level data.

After the load test completes, the HP LoadRunner analysis engine provides a single view of end-user, system-level, and code-level performance data. It includes a patented AutoCorrelation engine to scan end user, system, and diagnostics data and provide the most likely causes of system slowdown. The data is correlated to quickly pinpoint problem areas and identify the root cause of performance bottlenecks. This helps your engineers to quickly determine whether they have met their performance goals, and if not, why not and who owns the problem.

Test against a broad range of applications and protocols
HP LoadRunner supports performance testing for a wide range of application environments and protocols, including Ajax, Flex, Silverlight, Web, SOA, and Web Services, RDP, Database, Terminal, Citrix, Java™, .NET, Oracle, and SAP. An updated and easy to use scripting and debugging engine leverages data format extensions and correlation studio to make scripting faster and easier.

Record and replay Rich Internet Application using a variety of Web 2.0 technologies
HP LoadRunner’s new TruClient technology is a new, browser-based Virtual User Generator to support next generation AJAX applications. It is embedded in the browser, and provides interactive recording and scripting, which removes the need for programming during scripting. It gives you the ability to record and replay at various levels, from the GUI level down to the transport and socket level, depending on the skillset available and the level of customization required. This makes scripting easier, faster, and more robust. It supports a large range of AJAX toolkits, and makes testing of Web 2.0 applications faster, easier, and more comprehensive.

Deliver enterprise load generation, monitoring, and diagnostics.
HP LoadRunner has more than 60 non-intrusive monitors tailored for these systems and provides diagnostics for any applications running on J2EE, .NET, SOA, Oracle, and SAP.

Simplify analysis and reporting
With its Bubble-Up analysis capabilities, LoadRunner helps you quickly determine which transactions passed or failed the set service level objectives (SLOs), as well as some potential causes of failure. A strong analysis engine helps you slice and dice data in many ways to easily pinpoint the root cause of the problems. You can also use templates to generate multiple custom reports to serve the needs of various stakeholders.
Support testing across the application lifecycle

To enable load testing earlier in the application lifecycle, which is particularly relevant in agile environments, HP LoadRunner integrates with the leading J2EE, Microsoft® Visual Studio, and Microsoft .NET environments. This integration lets you create HP LoadRunner scripts directly within the IDE, so developers can participate in the performance testing efforts earlier. In addition, HP Diagnostics Profiler software allows developers to view and debug performance issues at the code level within their development environments and desktops.

To facilitate intelligent release decisions, HP LoadRunner is integrated with industry-leading quality software, such as HP QuickTest Professional software and HP Quality Center software. Leveraging these complementary products together with HP LoadRunner provides a comprehensive solution for managing release risk, so you can make informed decisions prior to going live. HP LoadRunner also integrates with HP ServiceTest for testing Web Services. This becomes particularly relevant when services are not yet completely integrated into the application, but need to be tested to ensure that they will perform and scale when expected.

Application performance and service-level management doesn’t end when load testing is done. In fact, service-level management begins when the system goes live. During the transition from pre-release to production, you can use HP LoadRunner scripts within HP Business Availability Center software to monitor application performance, availability, and service levels in production under real-user workloads. Common technologies in other HP products such as Diagnostics and SiteScope, that integrate both with HP LoadRunner as well as HP Business Availability Center, help bridge the gap between testing and production.

These integrations, both upstream into development to QA and downstream into production, make HP LoadRunner an ideal solution for performance engineering across the application lifecycle.
Key features and benefits

- Supports performance testing of new technologies together with your existing, legacy applications
- Decreases the risk of deploying systems that do not meet performance requirements
- Reduces hardware and software costs by accurately predicting application scalability and capacity
- Helps you establish intelligent service level agreements before go-live
- Shortens test cycles to accelerate delivery of high-quality applications
- Pinpoints end-user, system-level, and code-level bottlenecks rapidly and with ease
- Reduces the cost of defects by testing earlier in the application lifecycle

For more information visit www.hp.com/go/loadrunner

About HP BTO Application Solutions

HP’s application solutions help ensure modernization initiatives deliver business outcome instead of failing under the burden of outdated, legacy delivery mechanisms. Where rival solutions mistake the software development lifecycle for a total picture of the application, HP sees core delivery in the context of the complete application lifecycle—from business idea through retirement. Furthermore, by providing unified management and automation solutions, HP offers customers not simply more tools and integrations but greater simplicity. The result for enterprise application teams is improved predictability, repeatability, quality, and change readiness in both the core and complete lifecycle.

To generate real life load, identify, and diagnose problems, check out, www.hp.com/go/performancevalidation

Connect with peers and HP Software experts: www.hp.com/go/swcommunity

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