HP Mobile Performance Testing Foundation Service

Accelerate and automate your mobile application performance testing.

Executive summary

The era of mobility has arrived, and many IT organizations are beginning to rethink how they deliver applications to their users. End users are now tech-savvy and put much more emphasis on the quality of experience. With "bring your own device" policies becoming more commonplace, corporate IT users are abandoning traditional devices such as PCs and laptops in favor of smartphones and tablets, demanding the same experience from their corporate applications that they have in their private lives. However, more than just a fad, these trends open up tremendous opportunities for IT to enhance user productivity, improve timely access to information, and reinvigorate the experience—often perceived as dull—that users have with IT.

These trends are driving an unprecedented increase in mobile application development, with some analysts projecting that within the next few years, mobile application development will surpass traditional application development by four to one. This brings a new set of challenges that engineering and QA teams need to overcome to keep up with this rapid rate of growth and ensure the performance of their applications.

HP Mobile Performance Testing Foundation Service from HP Software Professional Services helps you rapidly ramp up your mobile performance testing solutions (HP Mobile Center, HP LoadRunner/Performance Center) combined with HP Network Virtualization technology and our unparalleled expertise.

Service overview

HP Mobile Performance Testing Foundation Service gets you started using HP performance testing solutions for mobile applications quickly and effectively so that you can begin to reap the benefits early.

HP Software Professional Services works closely with your test/QA leads and mobile subject matter experts (SMEs) to implement a mobile performance testing framework. Our primary mobile testing focus is to enable you to accurately test mobile application performance under varying loads and network conditions, and deliver high-performing mobile applications.

The framework addresses mobile application performance testing by focusing on three core capabilities:

- Generating the volume of transactions that the application and its back-end systems are expected to handle
- Simulating realistic mobile carrier network conditions over which information is exchanged between the devices and the application
- Measuring the end-user experience when the server application is subjected to various load conditions

HP Mobile Performance Testing Foundation Service offers a proven approach that gives you the tools and processes to control all elements of mobile performance testing. With accurate mobile testing results, you will be able to make the right decisions regarding capacity planning, application design, and architecture. Identifying bottlenecks and how they impact the end-user experience will enable you to fine-tune the end-to-end system for optimal performance throughout the iterative testing process.

This service includes:

- Installation and configuration of any packages required for the integration of HP Mobile Center with existing and supported load testing and mobile functional testing software
- Installation and configuration of HP Network Virtualization solution with HP LoadRunner and Performance Center
- Installation and configuration of HP Mobile Center (if purchased)
- Application analysis, capture of performance requirements, and mobile performance test plan creation
- Creation of one (1) automated performance testing script
- Creation of one (1) automated mobile device functional testing script (using HP Mobile Center and any supported functional testing tool)
- Creation of up to two (2) performance testing scenarios with various network impairment conditions using HP Network Virtualization if available
- Execution of up to two (2) runs per load scenario
- Results collection and analysis
- Hands-on mentoring throughout all testing activities

The technology

While conducting performance testing on mobile applications using thousands of real mobile devices and real network providers is impractical, simulating the same conditions can easily provide a wealth of valuable and actionable information at a fraction of the cost. Using HP LoadRunner or HP Performance Center, mobile applications can be put under stress or load conditions. At the same time, HP's Network Virtualization technology—integrated with the mobile testing framework—allows you to simulate network conditions such as bandwidth, latency, and packet loss. Together, they combine to provide an accurate real-life simulation by incorporating real-world network conditions into the load and performance test environment. You may further augment the testing process with HP Mobile Center, mobile devices and applications testing solution, which enables you to use a small number of real mobile devices that can act as a control group in conjunction with the simulated environment, providing an even higher degree of accuracy in measuring the end-user experience.

Benefits

Ensure application performance

Being able to test your application's performance in the lab allows you to detect and fix any performance bottlenecks prior to release. It enables you to be confident that your application will meet its requirements and deliver to your users the experience they want and expect.

Accelerate time-to-value

HP Mobile Performance Testing Foundation brings to you the years of experience that HP Software Professional Services has in setting up mobile performance testing frameworks. This eliminates the burden of a learning curve, allowing you to focus on learning from the experts and start reaping benefits early while saving you time and money.

Increase quality

First impressions are critical, and releasing an application that under-performs—or worse, becomes unusable under load conditions—will inevitably result in users instantly losing confidence in your ability to deliver a quality service. Delivering applications that provide predictable and reliable performance within agreed service levels will yield happy users who will perceive you as a true business enabler.

Reduce risk and avoid costs

It is a well-established fact that the cost of retrofitting an application to remediate critical flaws increases dramatically after the application is live. Mobile performance testing ensures that you deliver predictable application performance, and reduces the risk that the application will need to be taken offline to fix performance issues. User productivity remains undisrupted and the extra expenditure is avoided.

Service description

Preparation

The initial phase of the service is to ensure that all prerequisites listed in the checklist provided by HP (e.g. availability of customer SMEs, installation of HP LoadRunner or HP Performance Center) are met and HP

consultants are ready to come on site. If the HP team includes offsite consultants, we ensure that network access is provided. We also conduct a kickoff meeting with the stakeholders to ensure that everyone knows what their role is and what to expect as the project progresses. With the help of the customer test/QA lead and mobile SME, we identify test scenarios for automation and ensure the availability of necessary software products and mobile testing infrastructure.

Deployment

During the Deployment phase, HP will install, set up, and configure HP Network Virtualization solution and HP Mobile Center with the supported out of the box integrations with existing HP tools (HP LoadRunner, HP Performance Center, HP ALM, and others)

Discovery

In this phase, the customer SME walks through the test scenarios identified, and then works together with the HP consultant to capture the test requirements that the HP consultant will then transform into a test plan.

Development

Based on the outcome of the Discovery phase, the HP consultant develops all necessary scripts. Performance scenarios are created and the desired network impairments are configured within each scenario.

Execution

In this phase, the test scenarios are executed. Any issues are rectified and the tests are rerun until they execute flawlessly. Raw performance data is collected, reports are generated, and the results are presented to the stakeholders. We provide the necessary mentoring and knowledge transfer to your QA/test leads to enable them to continue to expand your performance testing capabilities.

The HP Software Professional Services difference

HP provides unmatched capabilities with a comprehensive set of Quality Management consulting and implementation services and

unique intellectual property that help you deliver high quality applications faster and accelerate innovation.

- Fast time-to-value: HP Mobile Performance Testing Services get you up and running, automating your mobile performance testing efforts in a matter of weeks
- Proven quality management and testing solution implementation expertise
- More than 20 years of experience helping large, complex, global organizations realize value from their HP Software investments
- Unique intellectual property to accelerate your value realization
- Technology-agnostic implementation approach with no vendor lock-in, no rip-and-replace
- Rich intellectual property and unparalleled reach into product engineering
- Education and support services to ensure adoption

Only HP Software Professional Services brings together consulting expertise and the industry-leading mobile testing automation solution to help you automate faster and perform better.

For more information

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HP Software gives you the power to gain connected intelligence for the new style of IT—anytime, anywhere, quickly, and securely.

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