MICRO[®] Focus

LoadRunner Cloud

Whether you want to test performance at a massive scale or require a collaborative, cloud-based solution for fast-moving Agile and DevOps teams, LoadRunner Cloud gives you the simplicity and scale that you need to test fast, rapidly pinpoint issues, and ultimately deliver high-performing applications.

Product Highlights

With LoadRunner Cloud, your software delivery team has easy access to cloud-based performance testing resources that are just a click away. You won't be held back by a lack of infrastructure or the need to install updates for on-premises components, poor reporting, or lack of scale. With broad coverage, innovative technologies, extensive integrations, and powerful analytics, you can tackle any project. When combined with the rest of the LoadRunner family, your organization can build a performance engineering practice that scales. Simply choose the right tool for the right job while leveraging a connected ecosystem that delivers smarter insights, tighter collaboration, and better cost savings.

Key Features

Extreme Cloud Scalability

Building real-life performance scenarios that reflect thousands or millions of users isn't always cost-effective or feasible. Instead, you extrapolate smaller test results to service level expectations, which may not expose critical performance issues until they appear in production. LoadRunner Cloud is designed to handle massive scale, without the concern of getting additional hardware, and lets you realistically test with over five million virtual users, from different world geographic locations, all in a matter of minutes.

Testing at huge scale doesn't come with exorbitant, fixed costs either. A flexible licensing model includes the Virtual Users license, which is ideal for continuous testing, and the Virtual User Hours license, a consumable model that is ideal for seasonal peak testing. Both options allow you to scale up or down to meet your critical testing needs. Now you can create better outcomes through improved experiences and optimized costs.

Worldwide Coverage without the Overhead

No two experiences are alike. Making sure that your software works as expected in any location creates challenges in building a performance testing infrastructure, especially in terms of controllers and load generators. Using a cloud-based solution solves a number of challenges. First, you don't have to worry about overhead costs and ongoing maintenance— Micro Focus will manage it for you. Second, you can easily distribute virtual users to multiple locations using AWS, Microsoft Azure, or Google Cloud Platform cloud locations; private cloud; or on-premises load generators. With support for over 40 cloud regions, worldwide coverage is possible in minutes versus days or weeks.

While using LoadRunner Cloud, you don't need to manage or maintain infrastructure, such as controllers or load generators, as the service is hosted in the cloud and load generators are dynamically provisioned in multiple regions for more accurate results. On demand, the elastic cloud self-driving test lab, provided by LoadRunner Cloud, can automatically create dozens and hundreds of load generators within a few minutes.

Key Benefits

- Scale to over five million virtual users for the ultimate in test coverage
- Reduce hardware maintenance with a flexible testing model
- Run tests in multiple locations using public cloud, private cloud or on-premises load generators
- Leverage any LoadRunner scripts, open-source tools or create a test using REST API, CSV file or HAR file
- Smart reports and dashboards let Agile and DevOps teams quickly understand performance issues
- Foster collaboration with multi-user, multi-test execution, asset sharing, and project management

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Figure 1. LoadRunner Cloud helps you understand how your app will handle varying numbers of users from different regions of the world.

Quick Testing for Fast-Moving Agile and DevOps Teams

Your development teams bring their own areas of expertise to the testing process. Each team member has a preference as to how quickly they can begin their test, when they can test, and which tools they use to complete their tasks. These different knowledge levels coupled with testing diverse applications could add complexity to the process.

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Figure 2. Foster collaboration with multi-user, multi-test execution, asset sharing, and project management.

LoadRunner Cloud makes it easy to design, create, and run tests and is an ideal cloud load-testing solution for your fast-moving agile development process. With the intuitive features of LoadRunner Cloud, anyone on your application delivery team can perform load tests—including developers, QA specialists, and project managers.

Your agile performance testing team can start load testing in the cloud much earlier in the project. You can add additional users (developers, dev testers) and more tests into the automatic CI process. You are not limited by the number of concurrent runs, so there is no need to think twice before adding another manual or automatic test during each sprint to accelerate the velocity of your project and the quality of the released software.

Simplified Test Creation

Creating a useful performance script requires a lot of research and discussion with your team and stakeholders. The goals and parameters may stay the same or change with new conditions or services. Equally, your test scenarios and scripts should easily adapt to minimize rework. LoadRunner Cloud allows you to leverage existing scripts—created in best-of-breed scripting applications such as LoadRunner Developer, VuGen, TruClient, and DevWeb while also supporting third-party open-source tools such as JMeter, Gatling, and Selenium. LoadRunner Developer is integrated with LoadRunner Cloud.

Besides scripting, LoadRunner Cloud offers three unique ways to create tests. You can provide a REST API to be tested, a CSV file containing a list of REST calls, or a HAR file, captured from any browser, containing relevant HTTP traffic. Whichever option you choose, you're working in an environment designed for developers.

Seamless Integrations

Performance tests alone don't always paint the full picture. Incorporating application monitoring allows you to take a centralized approach to data collection and connect the dots. LoadRunner Cloud has a rich selection of third-party tools to integrate with: continuous integration (CI) servers, such as Jenkins, Azure DevOps, GitHub Actions, Bamboo, and AWS CodePipeline; APM tools such as SiteScope, Application Insights, AppDynamics, Dynatrace, and New Relic; and Git, Splunk, Network Virtualization (NV), and WebPageTest. These integrations offer flexibility and allow your agile testing and development teams to run performance tests as part of their builds in an easy, automated manner.

Realistic Network Conditions

Network conditions are continually evolving. You need to discover how network constraints affect communication between end users, the application, and its dependencies. Network Virtualization is integrated with LoadRunner Cloud. Network Virtualization lets you apply accurate network conditions during testing to uncover performance issues. The results are displayed in real time and summarized in a comprehensive client, network, and serverside breakdown report, along with optimization recommendations on a code level to quickly find and fix the problems.

Powerful Analytics

Understanding your test results can be challenging as you pore through data and try to interpret the results. Automated and graphical analysis can significantly cut down on the time you spend. Ultimately you want to identify problems faster, with LoadRunner Cloud you can use predictive analytics to help you understand anomalies and problems in real time. With the benefit of intuitive analytics, you can easily interpret the test results to identify the performance profile of the application and then determine your mitigation options. During the process, LoadRunner Cloud captures valuable metrics on how your application behaves

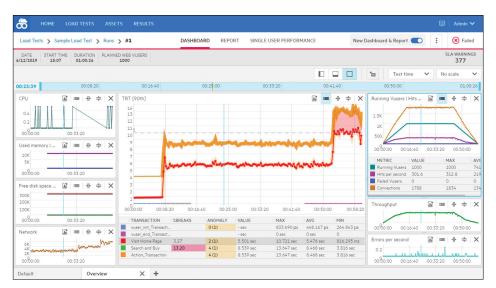


Figure 3. An intuitive dashboard provides complete, real-time network breakdown to isolate and remediate application performance bottlenecks.

under different virtual user loads and allows you to compare multiple metrics from both the same and old tests run as well as compare existing test run to a benchmark.

Performance Engineering with the LoadRunner Family

High-performing teams adopt a proactive, continuous performance engineering approach that includes four key attributes: expansion of performance testing to new roles, tight integration into the CI/CD process, end-to-end performance analysis, and continuous improvement. Combined, these elements ensure that teams can engineer performance early in the lifecycle through the end-user experience.

The LoadRunner Family is an integrated set of enterprise-grade performance engineering solutions that work independently or in a combined fashion. With any solution, you can confidently test complex load, stress, and performance scenarios across legacy, website, and mobile applications—while benefitting from shared capabilities and common technology. Ensuring that tools are right-sized for different users while exploiting test reuse, and managing or delivering shared infrastructure, helps you develop a performance engineering ecosystem for success. The LoadRunner family includes:

- LoadRunner Cloud—cloud-based performance testing for extreme scale and flexibility.
- LoadRunner Professional—versatile and comprehensive performance testing for co-located teams.
- LoadRunner Enterprise—collaborative performance testing platform for globally distributed teams.
- LoadRunner Developer—shift-left performance testing embedded throughout the development lifecycle.

Don'tmake quality an after thought. Load Runner Cloud is an easy and cost-effective way to incorporate robust cloud mobile app and website load testing into the full lifecycle of your agile testing and development processes. You can look to the cloud to dramatically reduce the amount of time and skill required to create scripts and execute your tests. "One of the key benefits of using Micro Focus LoadRunner Cloud is that we can automate both testing and result generation. This enables us to save time and leaves us free to concentrate on other areas."

Performance Engineering Manager McGraw-Hill Contact us at: www.microfocus.com

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Learn more about LoadRunner Cloud at **microfocus.com/LoadRunner-Cloud** or learn more about the LoadRunner family at **microfocus.com/performance-engineering**.

Key Specifications	Micro Focus LoadRunner Cloud									
Supported cloud regions for cloud load generators	Amazon Web Services: Bahrain California Cape Town Central Canada Frankfurt Hong Kong Ireland London Milan Mumbai Ohio Oregon Paris São Paulo Seoul Singapore Stockholm Sydney Tokyo Virginia	Microsoft Azure: California Dubai Hong Kong Illinois Ireland London Melbourne Netherlands New South Wales Osaka São Paulo Switzerland Texas Toronto Virginia	Google Cloud Platform: • London • Oregon • Sydney • Tokyo • Virginia							
On-premises load generators	d Use on-premises load generators to test applications behind your firewall.									
Supported browsers	Chrome, Edge, Firefox, and Safari									
Hosting location	United States									
Security Program	curity Program Periodic reviews of security practices against industry standards such as NIST, ISO 27001 and SOC									
Supported protocols	SAP UI, .NET MultiOracle + V	Citrix, DevWeb, Gatling, Java, JMeter, Kafka, Mobile (Web), MQTT, MultiSAP Web + SAP UI, .NET MultiOracle + Web, RDP, RTE, Selenium, Siebel, Silk, TruClient, Web HTTP/ HTML, Web Services, Windows Sockets (Winsock)								

