Tricentis

NeoLoad vs LoadRunner:
A comparative guide

INTRODUCTION

Enterprises are increasingly finding that their performance testing has not kept pace with advances in software development. Development cycles are getting shorter, with new applications, microservices, APIs, and features being released faster and faster. But all too often performance testing remains a highly manual, time-consuming undertaking that requires expertise and specialized know-how. Performance testing has become a bottleneck.

That's why organizations are looking for a more modern and productive alternative that breaks down the silos of expertise, clears the QA logjam, and gives every team — experts and non-experts alike — the ability to test faster, cost-effectively, across a broad range of enterprise needs. Because how do you release fast when QA is stuck? And get unstuck when that requires deep expertise not shared by the organization at large?

NeoLoad accommodates different types of testers across the entire organization. Everyone from centralized performance engineering experts doing complex end-to-end testing in a traditional approach to autonomous users testing individual components and APIs in a DevOps environment. They use one solution to test monolithic packaged apps like SAP or Oracle, and to automate API tests.

With NeoLoad, your teams require less time to do more work, more accurately, with fewer people. You can have your experts focus on things with higher strategic value instead of the "grunt work" of perpetually maintaining and rewriting scripts every time code changes.

ENTERPRISE PERFORMANCE TESTING FOR TODAY'S REALITY

Enterprises are finding that the performance testing practices, methodologies, and tools that have served them well for the past 10–15 years are no longer sufficient to meet the pace of today's faster release cycles.

Performance testing is no longer the exclusive bailiwick of silo'ed expertise, falling squarely on the shoulders of a few scarce experts testing only at the end of software development cycles. That approach is still very much relevant in enterprises today, and will continue to be so for the foreseeable future. But now as they start phasing in DevOps projects, enterprises are going from a couple of tests a week to dozens — and challenged to scale up the volume, velocity, and variety of performance testing.

The reality today is that performance testing is a variegated patchwork of both centralized teams of performance experts and distributed teams of non-experts, both monolithic enterprise-grade apps and microservices-based architectures, both complex end-to-end testing and API testing, both automated and manual approaches.

Enterprises are looking for a standardized performance testing platform that is:

- **Designed for both traditional, manual as well as modern, automated approaches**
- **Works for both experts and non-experts alike**
- **Meets all the needs of complex enterprise performance testing**
- **Is fast enough to support high-velocity testing**
- **Scales across the entire organization to give you the predictability, validation, and assurance that you're used to but at the speed of automating in an Agile/DevOps environment**

That's where NeoLoad comes in.

GO FROM WEEKS TO DAYS, DAYS TO HOURS

When it comes to the amount of effort to create and maintain performance test scripts, less is more. With today's need for high-volume, high-velocity testing, speed matters — a lot. To release fast, you have to test fast.

Speed is the #1 reason enterprises switch to NeoLoad. It's simply faster and easier to design and update test scripts. Customers find that with NeoLoad, testing goes from weeks to days, from days to hours.

What makes NeoLoad different is that unlike other performance testing tools, you can design even

complicated test scripts without writing a single line of code. Everything is drag-and-drop, point- and-click. No specialized expertise or know-how is needed. You avoid the complexity of coding scripts "by hand."

But the real force multiplier is NeoLoad's automated script maintenance. How often have you had to rewrite the entire test script because it broke each time the application code changed? In the DevOps "test early and often" world, broken scripts cost you the one resource in shortest supply: time. NeoLoad accelerates script maintenance by updating only the part of the test that's changed and keeping everything else from the original design the same — all the heavy lifting is done automatically behind the scenes.

"Scripted tests using NeoLoad in 1 day, down from 4 days to write the same script in LoadRunner."

verizon

You can even convert existing functional tests (Selenium, Tricentis Tosca) into performance tests with just a click.

MAKE PERFORMANCE TESTING A TEAM SPORT

Enterprise performance testing today — as a function, not a job description — comes in many different flavors.

You're testing everything from component-level APIs and containerized microservices to the aggregation of multiple services to complex end-to-end applications. There's monolithic enterprise- grade packaged applications and frameworks like SAP, Oracle, Citrix, Pega, Salesforce, Guidewire, Finacle, et al. as well as dynamic microservices-based applications. Testing is done by centralized teams of experts (internal and external), autonomous development teams, or a combination of both. The range of different technologies in play (both modern and legacy) is dizzying. Virtually everyone's environment is some combination of on-premises, private cloud, and public cloud.

NeoLoad allows you to standardize on a single performance testing platform across the entire organization. One platform that is both enterprise-ready and empowers all teams to move at today's faster speed. One platform that enables collaboration across distributed teams, establishes a common culture of performance testing, and lets everyone contribute to performance quality.

NeoLoad works equally well for centralized teams of performance experts doing complex end-to-end testing and autonomous DevOps teams of non-experts testing individual components and APIs. The platform is robust enough to simulate even the most complex business processes and user behaviors realistically, scaling up to millions of virtual users. But it's also flexible enough for DevOps teams to design and run tests as code within the command line interface (CLI) or their day-to-day IDE.

Also consider that NeoLoad's RealBrowser feature delivers both protocol and browser-based testing in a single solution – a benefit that LoadRunner can't provide. Performance test tools must be easy to use to enable adoption and RealBrowser doesn't require the technical expertise or specialized skill set of a solely protocol-based testing tool like LoadRunner.

This means your entire team, regardless of expertise, can use NeoLoad, from your center of excellence (CoE) doing complex scalability testing for major application or infrastructure change validation to developers testing code and APIs at the unit level and DevOps engineers automating smoke tests as part of CI/CD pipelines. Performance testing begins to shift left and happens earlier in the development cycle so you can test earlier and detect and fix bugs before they become an issue.

Why choose a testing solution that forces you into one camp or the other when you can have both?

> ***"Moved from LoadRunner to NeoLoad for its superior Agile and DevOps support."***
>
> Guardian®

AUTOMATE, AUTOMATE, AUTOMATE

- Our "new normal" has only intensified the competitive pressure to bring digital innovation to market faster. But building, running, and analyzing performance tests manually can no longer keep pace with the speed of development. How can you release fast when QA is stuck?

- This is where NeoLoad automation really makes a difference. First, by automating so much of the time-consuming manual effort to create complex tests, it carves out more time for performance engineers and helps them get "unstuck." Second, NeoLoad empowers DevOps teams to run performance tests automatically as part of their go/no-go decisions every time they check in code. And with NeoLoad's

automated script update capability, automated tests don't break every time code changes. Plus, the RealBrowser feature provides the flexibility to let teams decide the most efficient way to design their tests depending on their application and goals. Developers can create a performance test quickly and easily all from a single record button and then configure a test using a variety of settings. They can even run tests as code (YAML).

- NeoLoad natively integrates with any CI server — Jenkins, Bamboo, TeamCity, etc. — and Docker- friendly CI pipelines such as GitLab, AWS CodeBuild, and Azure DevOps. But it's the way NeoLoad brings about cross-team collaboration that enterprises say sets it apart. Because it has been designed to accommodate different teams with different skill sets, NeoLoad makes it easier to "connect the dots" between Dev, Ops, and business stakeholders to define service level objectives (SLOs), share test assets, review results, and communicate performance insights.

BE CLOUD-READY, NOW AND IN THE FUTURE

Cloud technology is changing the very nature of enterprise performance testing. The further they travel on their cloud journey, the more enterprises turn to NeoLoad. Why? NeoLoad has been designed with modern cloud performance testing challenges in mind.

Migrate apps with confidence

Whether it's enterprise-grade apps moving to a SaaS model (e.g., SAP S/4HANA) or re-architecting existing apps to microservices-based architecture, migrating applications to the cloud involves a lot of moving parts and introduces risk. NeoLoad simplifies the complexity by allowing various teams to reuse test assets for precise apples-to-apples comparison of performance pre- and post-migration.

Scale apps cost-effectively

Scalability isn't free. NeoLoad helps optimize your applications so that you're not overspending on cloud resources or camouflaging buggy apps with costly added capacity.

Realize your multi-cloud strategy

A multi-cloud strategy isn't simple — requiring complex code changes as you switch from one cloud provider to another at a moment's notice, or introducing cross-network performance problems. NeoLoad is natively vendor-agnostic so that you're able to test performance quickly and easily among AWS, Google, Azure, etc.

Integrate with cloud CI pipelines

As software development becomes increasingly cloud-based, NeoLoad enables you to migrate automated performance tests to cloud CI pipelines — and still run CI pipelines on-prem — via seamless integration with cloud CI tools like AWS CodeBuild, Google CloudBuild, Microsoft Azure DevOps, and cloud orchestrators like OpenShift, Kubernetes, EKS, GKE, and AKS.

INTEGRATE OTHER TOOLS WITH PURPOSE

If you're like most enterprises, you have a lot of different software development tools and multiple toolchains. A common mistake is trying to integrate as many tools as possible. Usually you wind up with unmanageable complexity — without realizing any productivity gains. A more mature, effective approach is to integrate the right tools at the right time for the right reasons.

NeoLoad natively integrates with the best-of-breed tools that actually help ensure better quality at higher speed. There's no labor-intensive, error-prone manual work to get everything to work together — integration is out-of-the-box.

GET UP AND RUNNING IMMEDIATELY

We've all been in the situation where we find a software solution that seems to address an immediate need, but actually getting the solution up and running turns into a long, drawn-out nightmare. You begin to question whether it's worth the hassle.

NeoLoad doesn't shoehorn you into a single deployment option. Want an immediate, easy SaaS deployment? We got it. Need NeoLoad to be on-prem? A single Docker image makes deployment hassle-free. Or both? NeoLoad is available as a hybrid model too.

By its very design, NeoLoad has a short learning curve. Typically, teams are able to ramp up on NeoLoad in about three days, with an organization-wide rollout possible in just a couple of weeks. What takes an entire day to learn in other tools takes only an hour in NeoLoad. That makes it easy and painless to introduce or expand into new teams.

And don't just take our word for it. Tricentis interviewed ten of our enterprise customers about their migration from LoadRunner to NeoLoad and found that the biggest benefit of making the switch was the opportunity to reassess their performance testing approach, simplify scripts, and clean out about 80% of their scripts that had become "dead code." The survey found that most scenarios (± 70%) can be migrated to NeoLoad in just a couple of weeks and complex test scripts within a couple of months. The average duration of migration among the enterprises we surveyed was only three months.

> ***"NeoLoad's plug-and-play UI was so easy to use that we were able to train colleagues ourselves within a few days."***
> Fortune 100 Healthcare Company

Application performance monitoring

Performance test results are consolidated with APM data in a single pane of glass view (Shift Right).

New Relic.

dynatrace

Version control

Leverage commonly used version control systems to kick off tests, and manage and share test assets.

GitLab

git

Open API

NeoLoad open APIs connect to dev and business tools like Splunk, Tableau, and Slack.

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splunk>

Functional testing

Repurposing functional tests as performance tests is one-click simple.

appium

Selenium

Tricentis Tosca

Continuous integration

Automate continuous performance testing within CI pipelines via on-prem or cloud CI tools.

Jenkins

TC

XebiaLabs
Enterprise DevOps

Bamboo

GET MORE DONE FASTER WITH FEWER RESOURCES

Nowadays more than ever, every IT department is under intense pressure to realize greater strategic ROI from its technology investments. When it comes to performance testing (and manual testing accounts for an estimated 25-30% of an enterprise's entire IT budget), ROI translates as the time and effort required to ensure quality software.

Increasingly, organizations are finding that the way they've always done things with their existing performance testing tools isn't allowing them to reach the goal of releasing software faster, with more confidence, and more cost-effectively. Testing simply takes too much time, effort, and specialized expertise.

With NeoLoad, your teams require less time to do more work, more accurately, with fewer people. Because it's easy to use, more people with varying skill sets get up to speed quickly. NeoLoad paves the way for every team to test performance faster. Advanced automation capabilities reduce rework and avoid reinventing the wheel, freeing up your experts to focus on issues that drive growth.

You also realize a greater return on your hardware and software investments. NeoLoad's dynamic infrastructure lets you spin up machines when you need them, then release them once the test is finished. No complicated scripts to provision machines or manually connect dynamic testing resources to CI pipelines.

And NeoLoad natively supports container orchestrators like Kubernetes, OpenShift, Microsoft AKS, Amazon EKS, and Google GKE to provision infrastructure automatically on demand.

NeoLoad enables organizations to use their resources — people, hardware, and software — more productively. You start realizing ROI in just a few weeks or a couple of months.

> ***"We saw an 80% reduction in costs [with NeoLoad] . . . to prep for our busiest day of the year."***
>
> BEST BUY

ABOUT TRICENTIS

Tricentis is a global leader in enterprise continuous testing. The Tricentis AI-based, continuous testing portfolio of products provide a new and fundamentally different way to perform software testing. An approach that's totally automated, fully codeless, and intelligently driven by AI. It addresses both agile development and complex enterprise apps, enabling enterprises to accelerate their digital transformation by dramatically increasing software release speed, reducing costs, and improving software quality. Widely credited for reinventing software testing for DevOps, cloud, and enterprise applications, Tricentis has been recognized as a leader by all major industry analysts, including Forrester, Gartner, and IDC. Tricentis has more than 3,000 customers, including the largest brands in the world, such as McKesson, Allianz, Telstra, Dolby, and Vodafone.

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