

Build



VS

Buy



What is the right solution for you?

When considering an automated testing solution, many companies need to decide between installing internal infrastructure and running tests in the cloud with 3rd party infrastructure. We will break down the costs and differences between building and maintaining a local grid and using the Sauce Labs infrastructure.



Commonly Known Costs

A Hardware

• Servers, VMs

First off, local grids require servers. Besides the cost of the servers themselves, companies need to pay to license software and operating systems. Testing on both Windows and Mac requires having servers and licenses for both.

• Depreciation

Additionally, in-house hardware depreciates quickly over time, which costs the company a significant amount over the years, and hardware eventually needs to be replaced.

B Data Center Costs

Data center costs include electricity and networking costs.

C Setup & Ongoing Maintenance

Most companies will also need at least one full-time employee to set up and maintain the grid.

D Developers Idle from Downtime

Selenium infrastructure is difficult to maintain, and downtime is inevitable. Downtime costs precious developer resources, since development is delayed if testing cannot be completed.

Sauce Labs' infrastructure has been built to be more stable than most local grids, with 99.99% uptime. That means developers spend less time waiting for infrastructure to be rebooted or fixed.

BUILD COSTS - SCENARIO FOR 50 VMS

DIY

MAC HARDWARE COSTS

TOTAL = \$46,000



WINDOWS HARDWARE COSTS

TOTAL = \$26,250

+

ELECTRICITY COSTS

TOTAL = \$23,595



+

COST OF MAINTENANCE

TOTAL = \$200,000



+

ANNUAL DOWNTIME

TOTAL = \$42,240



TOTAL DIY COST = \$338,085

SAUCE LABS



12-MONTH AGREEMENT

TOTAL = \$165,000

“ With Sauce, we are seeing a massive reduction in the time taken to debug Selenium tests, from an average of 3 days to 3 hours... This dramatically improves the productivity of our developers. ”

Denali Lumma

Engineering Manager, Quality, Okta

SAVINGS
=
\$173,085

COST OF SAUCE = \$165,000



On Sauce...

There are other factors and costs that may be less obvious when it comes to thinking about whether to build internal infrastructure or use a 3rd party service.

A Time savings

In addition to needing a full-time employee to maintain a local grid, there is also a significant time investment that has to be met to simply install the grid. With Sauce Labs, companies can begin testing immediately, since there's no infrastructure to install.

B Better reliability

One issue that few companies anticipate is the cost associated with dealing with tests that fail because of infrastructure unreliability rather than broken code. With local infrastructure, these "false positives" are costly because precious

developer time is needed to debug failed tests to determine what the cause of failure is. Sauce Labs' infrastructure is more reliable than local infrastructure and causes significantly fewer false positives for a number of reasons. With Sauce Labs, each of your tests is run on a completely clean VM, which is completely wiped after every test. Clean VM's result in fewer infrastructure failures. Sauce has also built measures into its infrastructure to detect and prevent failures, such as detecting when browsers crash mid-test and automatically rebooting them and re-running the tests. All this happens behind the scenes, so you can be confident that when a test fails, it's because of broken code, and not infrastructure reliability.

C Developer productivity gain

When using Sauce, not only are you saving yourself the cost of developers idle from downtime, you even experience a gain in productivity because developers can easily share test results with other team members and identify failures faster. Screenshots, videos, console and HTML logs, and built-in debugging tools allow developers to identify and debug issues faster.

D Instant scalability

Many companies' development cycles result in testing spikes during certain phases of development. When using a local grid, maintaining enough VM's to meet demand during these test-heavy periods can be a challenge. With Sauce, though, capacity is instantly scalable, so you can test as quickly as possible during critical testing times.

E Browser and device support

If you're testing on mobile, add even more to the costs outlined above. Devices and maintenance for mobile quickly becomes expensive, as does testing at scale. Similarly, browsers are constantly being updated with new versions, and keeping up to date is difficult. Sauce continues to add support for new browser versions so you don't have to.

F Value add features

Sauce Labs provides additional valuable features that make testing quicker and easier. Screenshots, videos, and console logs help developers and testers identify issues faster, and built-in debugging tools expedite debugging. Breakpoints allow users to take control of running tests to investigate problems. Sauce Labs accounts also come with unlimited manual testing minutes, so you can augment your automated testing.

G Secure Infrastructure

Security is a high priority at Sauce, and everything from our data center to the architecture of our browser traffic proxy tool, Sauce Connect. Spinning up fresh, never-used VMs for each test and destroying the VM completely after test completion means that your data is safe. And Sauce Connect provides enterprise-grade security to allow companies to test firewalled apps securely in the Sauce cloud. Data is encrypted via industry-standard SSL, using secure tunnels and a dynamically controlled firewall.



If there's a failure, we see the video and screenshots right there. It helps greatly with fixing tests faster.



Brian O'Neill - Senior QA Automation Engineer, Eventbrite