

VERIZON MEDIA ACCELERATES MILLIONS OF TESTS EVERY MONTH USING OPEN SOURCE TECHNOLOGY AND SAUCE LABS



Industry:
Digital Media

Company Size:
10,000+

SUMMARY

Combining [Screwdriver](#), an internally built, open source, CI/CD platform with the Sauce Labs cloud-based testing platform, Verizon Media—home to leading brands such as AOL, HuffPost, TechCrunch, Yahoo Finance and Yahoo Sports— implemented a powerful solution for continuous testing and integration. By implementing these solutions, the organization improved quality by testing more frequently, increased efficiency by decreasing automated testing time, and reduced staffing, hardware and maintenance costs.

THE CHALLENGE

Digital content giant Verizon Media is home to media, tech, and communication products that more than a billion people love and trust. With leading brands in its portfolio including AOL, HuffPost, Yahoo Finance, Yahoo Sports, TechCrunch, and others, Verizon Media's engineers develop and manage thousands of web, mobile, and server apps that comprise tens of thousands of projects. Verizon Media's development teams built a CI/CD platform called [Screwdriver](#) in 2012 for internal use on Yahoo properties. The teams also created code for each of these tens of thousands of projects that needed testing to ensure the code performed up to standard. With most of the teams relying almost solely on manual testing, Verizon Media needed a testing solution that would scale to their volume.

THE SOLUTION

To address testing concerns, the Verizon Media team started by centralizing its CI/CD efforts into one unified team to ensure that all code and respective tests were moving through one standardized pipeline. This team was tasked with choosing a platform to run all of their automated tests in the browsers, operating systems, and devices required to support applications, ultimately choosing the Sauce Labs cloud-based testing platform. This allowed internal teams to test on the latest browsers, operating systems, and devices—without worrying about maintaining their own infrastructure.

Screwdriver enables teams to deploy their application to test servers and run UI tests against

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Venu Narayanabhatla
Director of Software
Development Engineering



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Sauce Labs. Without Screwdriver, teams would manually set up all test configurations. “The combination of Sauce Labs and Screwdriver made it possible for us to have the advantages of testing at scale with ease,” said Venu Narayanabhatla, Director of Software Development Engineering, Verizon Media. “Continuous Integration and Continuous Delivery are crucial for any product to provide customer value. Integrating automated testing into the CI/CD automation pipeline accomplishes high product quality at every step.”

With Screwdriver implemented to manage builds at scale, Verizon Media was able to easily deploy automated testing. Internal teams could quickly configure the tests, roll them out across all projects, and report on what was failing immediately. The company implemented all this without manual intervention across tens of thousands of projects.

When you operate at the scale that Verizon Media does, you need tools that automate every step of the process. By leveraging Sauce Labs and Screwdriver together, Verizon Media can ensure its code is tested while saving time and money.

Since it values open source greatly both as a contributor and a user, Verizon Media open sourced Screwdriver in 2016. “Making Screwdriver open source has allowed us to augment our internal team with talented developers all over the world,” said Gil Yehuda, Senior Director of Open Source at Verizon Media. “Screwdriver is open source under a permissive Apache license, so any organization that operates at scale and needs to test its code can also benefit from a free, open source build platform, layering on Sauce Labs testing with ease.”

THE RESULTS

After implementing Screwdriver and Sauce Labs, Verizon Media ran more than 2.7 million tests in one month—proving that the solution could scale.

Additionally, automated testing with Sauce Labs saved the team a significant amount of time. For example, when the Verizon Media teams test a homepage button in various browsers it now takes five minutes, versus the 45 minutes it took when tested manually. The decrease in time arises because they can run tests in parallel against multiple browsers, and teams automatically have access to all the latest browsers and don’t need to manually set up combinations.

Verizon Media has also been able to save time on troubleshooting by using Sauce Labs’ debugging and video capture capabilities. Together, these two features help the team quickly determine why a test might be failing.

After implementing Screwdriver and Sauce Labs for testing, Verizon Media was able to save a total of 4,500 hours per year in staffing and maintenance, making their investment in testing and integration a worthwhile one.

To learn more about Screwdriver, click [here](#).