

# Selenium Automation Solution Provides 86 Percent Coverage for Wireless Industry Leader

PK



**ProKarma helps identify and address data issues early in development, bringing higher-quality software to the market more quickly and at a lower cost.**

## BACKGROUND

The fastest-growing wireless company in America is a global telecommunications firm that provides mobile communications services to 230 million global subscribers. With end users expecting a flawless, seamless mobile experience and a marketplace characterized by unprecedented advancements in mobile technology, this wireless leader is constantly on the lookout for ways to optimize the user experience while developing new, differentiating tools and services.

## PROBLEM

Global mobile use is growing by leaps and bounds. In the United States alone, 64 percent of adults now own a smartphone of some kind, up from 35 percent in 2011. With increasing adoption of smartphones, which require frequent updates, the ability to develop and deploy solutions and software quickly has never been more critical for this company's bottom line.

Rapid development and deployment also has never been more difficult. Developers today must account for differences in system platforms, ensuring that applications run responsively across many different devices and browsers. Developers who used to find it challenging to test software across five or six browsers now find they need to test across more than 15. Functional testing eases this pressure by collecting data to improve product quality, but doing so effectively means emulating various bandwidth rates in geographically diverse regions – all while taking into account small details, like variance in screen sizes and configurations. This is not a quick process – on average, developers wait 32 days for all components needed to move forward with end-to-end testing -- a lag that affects not just the test team but the whole development cycle.

## SOLUTION

The shift to an increasingly agile, dynamic development process requires rapid access to the appropriate test data, and ProKarma offers a range of solutions that go far beyond automation to ensure success.

Marrying the principles of DevOps and continuous integration, ProKarma worked hand-in-hand with the wireless provider to implement an automation solution centered on the Selenium suite. In doing so, ProKarma was able to provide testing teams with a continuous, two-way flow of feedback to ensure that failed tests were identified and addressed in the early stages of development.

## Selenium Automation Solution Provides 86 Percent Coverage for Wireless Industry Leader



By providing cross-browser testing, test data management, toolchain support and service virtualization, ProKarma helped enable short, repeated development cycles that integrate developers, testers and domain experts. The service virtualization solution allows developers to easily and quickly simulate and manage test environments, regardless of key components missing from the system architecture, and around-the-clock test development and execution allowed the organization to bring higher-quality software to the market faster and at a lower cost.

As a result, ProKarma helped the wireless leader bypass traditional testing roadblocks to deliver high-quality software quickly – ensuring an optimized experience for its end users.

Pew Research Center, April, 2015, “The Smartphone Difference.”  
<http://www.pewinternet.org/2015/04/01/us-smartphone-use-in-2015/>

Maslen, T. Prioritizing Devices: Testing and Responsive Web Design. *Smashing Magazine*. July 2014.  
<https://www.smashingmagazine.com/2014/07/testing-and-responsive-web-design/>

Dijkstra, Bas. 4 Ways to Boost Your Test Process with Service Virtualization. *Stickyminds*. August 2015.  
<https://www.stickyminds.com/article/4-ways-boost-your-test-process-service-virtualization>

ProKarma delivers integrated technology and business process outsourcing solutions for over 150 global leaders in a wide range of industries and markets. ProKarma is co-headquartered in Portland, Oregon and Omaha, Nebraska, with sales and delivery centers in the United States, India, Argentina and Peru. ProKarma was selected as a Global Services 100 Provider for 2012, 2013 and ranked as the fastest growing IT services company in America by Inc. 500.