



SUCCESS STORY HIGH TECH

# LEADING MOBILE CARRIER SPEEDS TIME-TO-MARKET

Apexon delivers 50% improvement in execution time for big cost savings



This company is one of the largest wireless carriers in the United States and Europe. In addition to operating its leading cellular network, the provider has made advancements into mobile banking, web TV and IoT – all with an eye on enhancing the breadth of its service offerings and level of customer engagement.

As customer demand for new mobile services continued to grow, the company's delivery teams struggled to keep pace. In order to continue to provide the best service, it needed to get its quality engineering (QE) efforts back on the right track.



**Operates first and largest nationwide 5G network**



**98+ million customers**



**\$45.0B in annual revenues**



Apexon has been working with the company since 2016. Apexon leveraged its expertise in quality engineering and its partnership with Perfecto to automate a large part of the company's software and device test footprint. This led to faster cycle time and reduced manual testing errors, accelerating delivery cycles significantly.

# THE CUSTOMER JOURNEY

2016

2017

2018

- Testing (Atos NL)
- Catalog & Front End
- Device Security MR Automation
- Extension into the Carriers New Services Offering Division
- DQA - SMR Extension



## THE RESULTS

# KEY OUTCOMES



### 50% IMPROVEMENT IN EXECUTION TIME

using native framework



### 77 MILLION RECORDS

of test execution data generated



### 20% IMPROVEMENT IN EFFICIENCY

as a result of fine-tuning the  
automation framework

## OUR METHODOLOGY

# THE DIGITAL LIFECYCLE

Apexon works with companies across the digital lifecycle.



## GO DIGITAL

### LAUNCH & EXPERIMENT



## BE DIGITAL

### AUTOMATE & ACCELERATE



## EVOLVE DIGITAL

### BE INTELLIGENT & AUTONOMOUS

Enable digital adoption in a quick, and agile manner

Apexon quickly got the carrier's QE efforts back on track after another well-known IT services vendor was unable to deliver.

Build digital infrastructure and foundation for enterprises to scale

Apexon developed reusable test cases and reusable scripts to analyze impact of current and future security patches, new devices and operating systems.

Apexon set up 1,400 automated test cases for QE of customer-branded mobile apps and 120+ test cases automated on 35+ different devices.

Leverage data engineering to make strategic decisions and get digital right every time

Apexon added 24x7 support for test execution including daily build release and validation, while using a static code analysis tool.

Apexon also added TestRail for test result integration and set up daily test execution and analysis to ensure quality releases to the end customer.

## THE CHALLENGE

# TO EMBRACE NEW DIGITAL SERVICES WITH NEXT-GENERATION CAPABILITIES

The carrier has a reputation for providing network excellence, innovative digital solutions, and offering some of the industry's highest service levels.

But as customer demand for new digital services continued to multiply and new devices and networks enabled next-generation capabilities, the carrier's delivery teams struggled to keep pace.

The carrier decided to embrace a "shift left" (test early and often) approach to its QE efforts with several key objectives:



Automate a large part of its software and device test footprint to speed cycle time and reduce manual testing errors



Reduce the time and resource requirements involved with testing new service offerings



Ensure the highest service levels possible for users

## THE SOLUTION

# OVERHAUL OF TESTING FRAMEWORK TO OPTIMISE QE EFFORTS

Apexon leveraged its expertise in enterprise mobile automation along with its technology partnership with Perfecto to quickly put the carrier's QE efforts back on the right track. The engagement focused on two key areas:



### CUSTOMER-BRANDED MOBILE APPS

That cater to enterprise customers and users on the carrier's cellular network



### ANDROID SECURITY MARKET RELEASES

Covering devices certified to work on the carrier's network. Some key aspects of the solution and deployment included:



Automated test cases



1,400 test cases automated for two apps on four different platforms (iOS and Android on mobile and tablet)



120+ test cases automated on 35+ different devices for the Android security patches

## Apexon also overhauled their testing framework which included:



A self-service portal to enable non-testers in the customer organization to independently execute test cases on as-needed basis



Daily test execution and analysis to ensure quality releases to the end customer



Parameterized set up and functionality to maximize functional test coverage



Error bucketing (automatic failure categorization)



Generation of network, system and device-related metrics from test execution of automation script



Test result integration with TestRail



Use of Kibana by (non-technical) subject matter experts for reporting to trigger and manage execution



Use of JIRA to manage entire flow to provide visibility across the entire delivery cycle; e.g., requirements, development, delivery, review, acceptance

**Apexon leveraged its long-time partner Perfecto to provide the optimal technical solution. This involved re-orienting the statistics used to analyze the software test failures more effectively and efficiently.**

Apexon also developed automation scripts to test device behavior in varied network signal strength environments while switching from one network to another; e.g., WiFi, 2G, UMTS, 3G, 4G/LTE, etc. The engagement also included 24x7 support for test execution including daily build release and validation while using a static code analysis tool.



Apexon is a pure-play digital engineering services firm focused on helping companies accelerate their digital initiatives from strategy and planning through execution. We leverage deep technical expertise, Agile methodologies and data-driven intelligence to modernize systems of engagement and simplify human/tech interaction.

We deliver custom solutions that meet customers' technology needs wherever they are in their digital lifecycle. Backed by Goldman Sachs and Everstone Capital, Apexon works with both large enterprises and emerging innovators — putting digital to work to enable new products and business models, engage with customers in new ways, and create sustainable competitive differentiation.



[info@apexon.com](mailto:info@apexon.com)



[www.apexon.com](http://www.apexon.com)

FEELING SOCIAL?

