

Shanghai OnStar Telematics Co.

On the journey to DevOps, Shanghai OnStar deploys UFT Digital Lab, integrated with ALM/Quality Center, BPT and UFT One to automate testing of lifesaving mobile app.

Overview

OnStar Corp., a subsidiary of General Motors Corp., provides subscription-based communications, in-vehicle security, hands-free calling, navigation and remote diagnostics in key automotive markets worldwide. Shanghai OnStar Telematics Co., Ltd. is a joint venture between GM, SAIC Motor Corp. and Shanghai-GM that provides safety, maintenance and telematics services for vehicles manufactured and sold in China. Record-breaking sales for six consecutive years—nearly four million vehicles in 2016 alone—have made China GM's biggest market. Shanghai OnStar serves approximately one million active users and has offered customer interaction service more than 316 million times across the country.

"We compared Micro Focus (now part of OpenText™) UFT Digital Lab with other automation tools and found it offers significant advantages. We can do both iOS and Android testing on a single platform. And, UFT Digital Lab's user interface is very easy for our testers to operate."

HAILIANG HUANGFU
Test Manager
Shanghai OnStar

Challenge

Shanghai OnStar is China's leading onboard telematics service provider. The OnStar Mobile App enhances driver safety and security by supporting vital services including GPS navigation, roadside assistance and smart SOS emergency alerts. It is the first onboard telematics service in China to support natural voice recognition. Shanghai OnStar is constantly upgrading and adding functionality to its mobile app, empowering consumers to perform actions—such as remotely locking and unlocking vehicle doors—that previously had to be done through call centers. Flawless application performance is essential; lives depend on it. With each new release, Shanghai OnStar endows its mobile app with greater functionality. The Quality Assurance team must test to ensure not only that the new features work properly, but that the application changes do not damage existing functionality.

Shanghai OnStar's traditional testing processes were manual, and mostly outsourced to a third party. However, this slowed down application release cycles. Shanghai OnStar aimed to accelerate time to market, reduce costs and integrate mobile-application testing with its journey to DevOps.

"We analyzed 2,000 manual test cases and determined that half of them could be



At a Glance

■ Industry

Automotive

■ Location

Shanghai China

■ Challenge

Accelerate mobile-application testing through automation; accelerate release cycles; support journey to DevOps

■ Products and Services

UFT Digital Lab
ALM/Quality Center
UFT One
Business Process Testing

■ Success Highlights

- + Automate more than 1,000 regression tests daily
- + Accelerate release cycles by 40%
- + Reduce mobile-app testing costs by 20%
- + Reduce defects into production by 10%

"Our Mobile Center is integrated with Micro Focus (now part of OpenText™) ALM/Quality Center and UFT One, so when we do the execution on UFT Digital Lab we can generate a report on the ALM dashboard to give our leadership the whole picture of test results."

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automated," recalls Hailiang Huangfu, test manager at Shanghai OnStar. "By accelerating testing through automation, we could support our business teams to develop new functionality faster for the application."

Solution

Huangfu is responsible both for Shanghai OnStar's global release testing—including applications used by call-center staff—and local testing of mobility services used by customers—drivers using their smartphones to access mobile-app functionality. Researching automation solutions for mobile-app testing, he found one that satisfied Shanghai OnStar's functional requirements and was easy to use: OpenText™ UFT Digital Lab.

UFT Digital Lab enables complete, end-to-end mobile app testing, creating a quality lab of real devices and emulators delivering extensive real-world mobile app testing, live monitoring and user insights.

"A key capability that distinguished UFT Digital Lab for us was that it covered both Android and iOS platforms with a single tool," Huangfu says. "Second, we could simulate the network, since we cannot use the real network worldwide. And, the user interface is very easy for our testers to operate."

The OpenText™ R&D team visited the OnStar office several times to discuss fine tuning the solution to meet Shanghai OnStar's precise needs. Shanghai OnStar also used OpenText implementation services, and today relies on the OpenText services organization to ensure

the UFT Digital Lab operates at peak efficiency. "Micro Focus (now part of OpenText™) is very professional and responsive," Huangfu says.

To unify the testing environment and drive informed corporate decision making, Shanghai OnStar uses UFT Digital Lab in conjunction with OpenText™ ALM/Quality Center and OpenText™ UFT One, as well as OpenText™ Business Process Testing (BPT) to perform full cycle functional testing and test case management.

"Our UFT Digital Lab is integrated with ALM and UFT One, so when we do the execution on UFT Digital Lab we can generate a report on the ALM dashboard to give our leadership the whole picture of test results including capacity and load testing," he says.

Results

Today Shanghai OnStar has automated more than 1,000 regression tests daily using UFT Digital Lab, ensuring that application changes do not negatively impact previously deployed functionality. The company has accelerated mobile-app testing by 40%, enabling two new releases per month instead of just one, with broader test coverage. It has reduced the time devoted to manual testing by 15 man-days per release, and reduced the number of manual testers from five or six to three or four. This has helped reduce mobile-app testing costs by 20% while reducing defects into production by 10%. Meanwhile, new mobile-app functionality empowering consumers helps reduce call-center costs.

"We're creating an end-to-end DevOps capability for continuous development, deployment and testing," Huangfu says. "UFT Digital Lab, along with ALM/Quality Center and UFT One, is a key part of our Application Development Management ecosystem enabling faster, better and more comprehensive service to OnStar customers."

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