Shanghai OnStar Telematics Co.

On the journey to DevOps, Shanghai OnStar deploys Micro Focus UFT Mobile, integrated with ALM/QC 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.

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 compared Micro Focus UFT Mobile with other automation tools and found it offers significant advantages. We can do both iOS and Android testing on a single platform. And, UFT Mobile’s user interface is very easy for our testers to operate.”

HAILIANG HUANGFU
Test Manager
Shanghai OnStar

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**
  Micro Focus UFT Mobile
  Micro Focus ALM/QC
  Micro Focus UFT One
  Micro Focus Business Process Testing

- **Results**
  - 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 ALM/QC and UFT One, so when we do the execution on UFT Mobile we can generate a report on the ALM dashboard to give our leadership the whole picture of test results.”

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Shanghai OnStar

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: Micro Focus UFT Mobile.

UFT Mobile 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 Mobile 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 Micro Focus 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 Micro Focus implementation services, and today relies on the Micro Focus services organization to ensure the UFT Mobile operates at peak efficiency. “Micro Focus is very professional and responsive,” Huangfu says.

To unify the testing environment and drive informed corporate decision making, Shanghai OnStar uses Micro Focus UFT Mobile in conjunction with Micro Focus ALM/QC and Micro Focus UFT One, as well as Micro Focus Business Process Testing (BPT) to perform full cycle functional testing and test case management.

“Our UFT Mobile is integrated with ALM and UFT One, so when we do the execution on UFT Mobile 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 Mobile, 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 Mobile, along with ALM/QC 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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