

Cox Automotive

Cox Automotive improves application quality and security with Micro Focus® Security Fortify and boosts customer confidence and competitive advantage by eliminating security risks.

Overview

Cox Automotive is a leading provider of products and services that span the automotive ecosystem worldwide. With more than 20 brands, the company runs popular automotive websites like Kelley Blue Book and AutoTrader, auctions and wholesale services including DealShield and Go Auto Exchange, and financial services such as NextGear Financial. Plus the Cox Automotive portfolio extends to a broad range of international brands, including Manheim, BitAuto, Dealer-Auction.com, Jingzhengu, and RMS Automotive.

Challenge

To simplify the trusted exchange of vehicles among manufacturers, dealers, and car shoppers, Cox Automotive tracks every detail of an automobile through its lifecycle—from cost and features as it rolls off the assembly line,

through its entire ownership and repair history, until it is finally sold at auction. Underlying this capability are hundreds of sophisticated applications managed by multiple software development teams who continually add new and enhanced features to improve the quality and efficiency of each customer's experience.

Today, customers can interact with any of Cox Automotive's products and services with complete confidence that their private information is secure. The business is also safe from outside threats that could exploit the company's software and cause operational disruption or loss of intellectual property. The reason: Cox Automotive implemented a comprehensive application security testing program built on Micro Focus Security Fortify solutions, integrated directly with the company's software development lifecycle (SDLC).

This is all thanks to the work of Tony Spurlin, Cox Automotive's chief information security officer (CISO), and his team. When Spurlin stepped into the position three years ago, the first thing he did was establish a formal application security program. That's because prior to being brought under the Cox Automotive umbrella, most of the brands were small companies with little-to-no process for managing software vulnerabilities. Now part of a multibillion-dollar

“Fortify solutions help us develop very secure applications that give our customers a positive experience with our products.”

TONY SPURLIN

Chief Information Security Officer
Cox Automotive



At a Glance

■ Industry

Automotive

■ Location

United States

■ Challenge

Identify and resolve vulnerabilities as an integrated application security testing process within the software development lifecycle.

■ Solution

Use Fortify on Demand for static and dynamic application security testing and WebInspect for pre-production dynamic testing of the most business-critical applications.

■ Results

- + Reduced application code vulnerabilities by 20% during the first year of using Fortify on Demand
- + Diminished critical software vulnerabilities by 94% after adding WebInspect dynamic scans to the SDLC
- + Lowered the amount of vulnerabilities in applications before they are moved into production

enterprise, the business units needed much more than a “best effort” in application security.

“We’re a big company, which makes us a big target for all kinds of threats,” says Spurlin. “All our solutions face the Internet and there are bad people out there constantly rattling our windows trying to find a way in. As we build new capabilities into our applications to make them easier and more feature-rich for our customers, we also risk introducing weaknesses that could be exploited. So it’s essential to provide our developers with the proper tools and training to find any vulnerabilities before an application goes into production.”

Solution

PERFECT FIT FOR AN AGILE DEVELOPMENT ENVIRONMENT

Spurlin considered several application security testing solutions, including WhiteHat, Varonis, and Fortify. After a thorough evaluation of each offering, he chose Fortify on Demand and WebInspect.

“With Fortify on Demand we get much more than just a tool that runs tests and spits back a report,” Spurlin explains. “It’s a complete solution with real live Fortify experts validating results. Plus we get training opportunities for our developers to keep them abreast of application security best practices and the ever-changing risks out there.”

Cox Automotive follows an agile software development methodology. Fortify on Demand fits perfectly into this iterative approach to building applications because it allows developers to upload their code each night for Fortify to run static scans, and get the results back the next day. This provides developers with immediate feedback on software quality and identifies any

flaws that could lead to security exploits. The developers are then able to correct any flaws in the next iteration.

When applications are fully compiled, developers run them through Fortify on Demand for dynamic security testing to uncover any remaining vulnerabilities before going into production. The result is higher quality, more secure applications that safeguard Cox Automotive customers and their private information, while protecting the business from outside attacks.

In the case of one application that started out with more than 10,000 security flaws, Fortify on Demand helped Cox Automotive lower that number to less than 100. Across the board, the company reduced application code vulnerabilities by 20% in the first year of using Fortify on Demand.

Spurlin points out that development teams are also more efficient: “Since implementing our application security program with Fortify on Demand, not only does our code run more efficiently and securely, but our developers are able to develop applications much more quickly since there’s a lot less rework.”

Fortify on Demand currently supports 7,000 developers in the U.S. with plans to expand application security testing services to all 24,000 developers worldwide. When the application security program is fully implemented Spurlin anticipates a 60% reduction in application rework, saving the company time and money.

Results

CLOUD SOLUTION SAVES TIME AND MONEY

As a cloud-based solution, Fortify on Demand made it easy and cost-effective for Spurlin

to ramp up his application security testing program. There was no need to stand up a separate infrastructure in-house and the computer-based training provided by Fortify helped developers understand the latest hacker techniques and secure coding best practices.

“Micro Focus is constantly updating the tools and techniques in Fortify on Demand based on their insights into the hacker world,” notes Spurlin. “We also get the benefit of Fortify expertise to evaluate each finding to ensure there aren’t any false positives. That eliminates the need for us to staff such costly expertise in-house.”

Spurlin estimates that the cloud automation and human-backed security expertise of Fortify on Demand has replaced the work of five full-time skilled analysts. This avoids an estimated \$1.25 million in personnel costs.

MAXIMIZES APPLICATION SECURITY AND QUALITY

Cox Automotive also relies on WebInspect for in-house dynamic scanning. This enables the security team to catch any latent vulnerabilities in fully compiled applications before they go into production—a critical step toward maximizing code security and quality.

As Spurlin is still rolling out the application security testing program to Cox Automotive’s global developer community, some applications may already be compiled without having gone through the secure SDLC process using Fortify on Demand. For those applications, WebInspect provides an easy and efficient way to quickly test for vulnerabilities that could pose security risks in production.

In other cases, the criticality of an application warrants post-compile scanning even after it has gone through the Fortify on Demand

process. In that scenario, WebInspect provides a final quality check, simulating an external security attack to expose vulnerabilities and report on their security implications.

“Adding WebInspect dynamic scanning into the SDLC, we’ve diminished critical software flaws by 94%,” Spurlin remarks. “That’s our last check in the build process to verify that any code remediation taken earlier in the cycle has been effective. WebInspect gives us a lot of confidence that the applications we release will not expose our customers or consumers to any security risks.”

BOOSTS CUSTOMER CONFIDENCE FOR COMPETITIVE ADVANTAGE

With Fortify solutions, Cox Automotive has changed the way traditional application security testing is performed, making it an integral part of the company’s agile development process. By providing real-time feedback to developers as they write code, Fortify on Demand allows them to iterate with higher quality and security while meeting production goals. WebInspect adds another critical layer of protection by catching any remaining vulnerabilities in fully compiled applications so they can be addressed before going into production.

Spurlin concludes, “Fortify solutions give Cox Automotive a competitive advantage because they help us develop very secure applications that give customers a positive experience with our products and services. I’ve read the complaints out there about poor quality in our competitors’ solutions, and there’s nothing worse for losing the trust of your customers. By leveraging Fortify on Demand and WebInspect, we put out higher quality solutions that give manufacturers, dealers, and consumers more confidence transacting business with Cox Automotive.”

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