NowSecure™

SECURITY AND COMPLIANCE ASSURANCE FOR MOBILE MESSAGING IN REGULATED INDUSTRIES

Vaporstream

Vaporstream®, Inc. provides a secure, ephemeral, and compliant messaging solution. To meet high customer expectations for security and compliance, Vaporstream contracts with a third party — NowSecure — to assess and certify the security of their Vaporstream app on Android and iOS across the entire mobile attack surface.

12	**2017**	**2**
APP RELEASES A YEAR WITH TWO-WEEK SPRINTS	MOST INNOVATIVE MESSAGING SECURITY SOLUTION	NOWSECURE-CERTIFIED APPS (ANDROID AND IOS)

ABOUT:

With customers in the healthcare, enterprise, financial services, higher education, legal, media, and other industries, Vaporstream offers a secure messaging platform that provides the security, scale, and best-in-class infrastructure needed to meet the business collaboration, security and compliance requirements necessary for today's mobile work teams.

CHALLENGES:

1. Overcoming misgivings in highly regulated industries

Vaporstream Secure Messaging solves a complex problem — providing secure mobile messaging that even compliance and security professionals in regulated, conservative industries can trust. Regardless of industry, people want to use mobile devices, apps, and text messaging to increase their effectiveness at work. In the healthcare field, for example, a 2016 study[1] showed that allowing staff to use mobile text messaging at two hospitals significantly reduced patients' length of stay.

Mobile messaging unsettles compliance professionals, however, especially in regulated industries such as healthcare, insurance, and financial services. They need complete assurance that a technology doesn't run afoul of compliance regimes or increase the risk of a data security breach. "Every time you sit across from someone whose job and career depends on HIPAA, Sarbanes-Oxley or Dodd Frank compliance, you know their standards are high and that your solution must exceed expectations," Vaporstream CTO Avi Elkoni says.

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1 - Change In Length of Stay and Readmissions among Hospitalized Medical Patients after Inpatient Medicine Service Adoption of Mobile Secure Text Messaging, https://www.ncbi.nlm.nih.gov/pubmed/27016064

2. Balancing security and record-keeping requirements

Vaporstream has to reconcile security with ease-of-use and strict record-keeping requirements. The app must sufficiently encrypt data to prevent eavesdropping and allow doctors and stock brokers alike to securely retain records as required. To assure compliance, this requires complete visibility into how the Vaporstream app secures data across the client, backend, and the various connections that transmit data between them.

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3. Ensuring the privacy, security, and ephemerality of mobile data

Mobile apps can store data in numerous places, even unintentionally. Vaporstream messages are never stored on devices and expire based on policy. Compliance copies are stored in a client-designated repository of record. The development team scrutinizes every design decision, new feature, or update to be sure it does not unintentionally store messaging data anywhere on the device. And the only way to validate that fact is to test the app in practice. "We needed advanced mobile forensic analysis to make sure that we never break our security model because data can reside in areas we don't want it to," says Sudip Ray, VP of Engineering at Vaporstream.

SOLUTIONS:

1. Making security a priority throughout the mobile SDLC

Security is not a byproduct at Vaporstream, it's at the forefront of development from inception through deployment. "When adding a new feature or enhancement, our first question during design is, 'how will this affect our security goals?'," Ray says. Vaporstream follows agile development principles, adheres to a monthly release schedule, and subscribes to a "test as you go" mentality. The QA team performs incremental security testing throughout the SDLC.

2. Independent mobile app security validation

Vaporstream submits the Vaporstream app to NowSecure for comprehensive penetration testing. "I wouldn't buy something that my regulatory compliance hinges on without a very high level of trust in the people that claim it's secure," Elkoni says. "NowSecure, as an unaffiliated third party that focuses on security, tests and certifies the app for our customers." NowSecure mobile app penetration testers conduct a comprehensive assessment of the app. This includes evaluating whether the app stores sensitive data on a device, properly encrypts data transmitted over the network, stores data securely via back-end services, and, via code analysis and reverse engineering, whether additional vulnerabilities exist in the code itself.

3. Full forensic analysis to identify mobile data at rest

The NowSecure team's unique mobile forensics capability results in a thorough examination of the data an app leaves behind once it runs on a device. It's crucial for Vaporstream to verify that their messaging app

does not leave behind personally identifiable information (PII), protected health information (PHI) or other data that falls in scope for various compliance requirements. NowSecure ensures the app does not store sensitive mobile data anywhere on the device, including in app folders, in the iOS Keychain, in logs, on the SD card, or elsewhere.

RESULTS:

1. Getting to "yes" for mobile messaging in regulated industries

The Vaporstream app allows compliance teams to say "yes" to mobile messaging and still fulfill security, compliance, and record-keeping requirements. "We're breaking the barrier of suspicion and bringing real value into very important industries that were barred from using mobile messaging in the past," Elkoni says. "I'm proud that we've built an app that rises to that challenge and, with help from NowSecure, convinces the marketplace that they are looking at a strong, cutting-edge solution that can meet their compliance needs." Cyber Defense Magazine awarded Vaporstream the Most Innovative Messaging Security Solution for 2017.

2. Confidence in the security of the mobile app

"It's a significant relief for the team when an independent third party like NowSecure tests the app and certifies that both the code and the DevOps side of our production implementation are secure," Elkoni said. The Vaporstream development team welcomes another set of eyes on their work, preferring to learn of a potential issue before it becomes a crisis in production. In addition, during the sales process, prospects will download the Vaporstream app and perform their own assessments. "When an organization's security team attends meetings with us, they already know that the certificates are valid and that network connections are encrypted properly, for example," Elkoni says.

3. Mobile app security validation and certification

To date, the Vaporstream app has met the rigorous security requirements for NowSecure certification. Many Vaporstream clients require third-party verification of new technologies before deploying them within their environments. A stamp of approval from a mobile app security expert such as NowSecure offers demonstrable validation that the apps follow security best practices. "Testing of the Vaporstream app shows that their development team is more advanced when it comes to security," says Katie Strzempka, VP of Customer Success and Services, who leads the NowSecure services team. "We encountered a lot of good secure coding practices and multiple layers of security — things that go above and beyond the norm."

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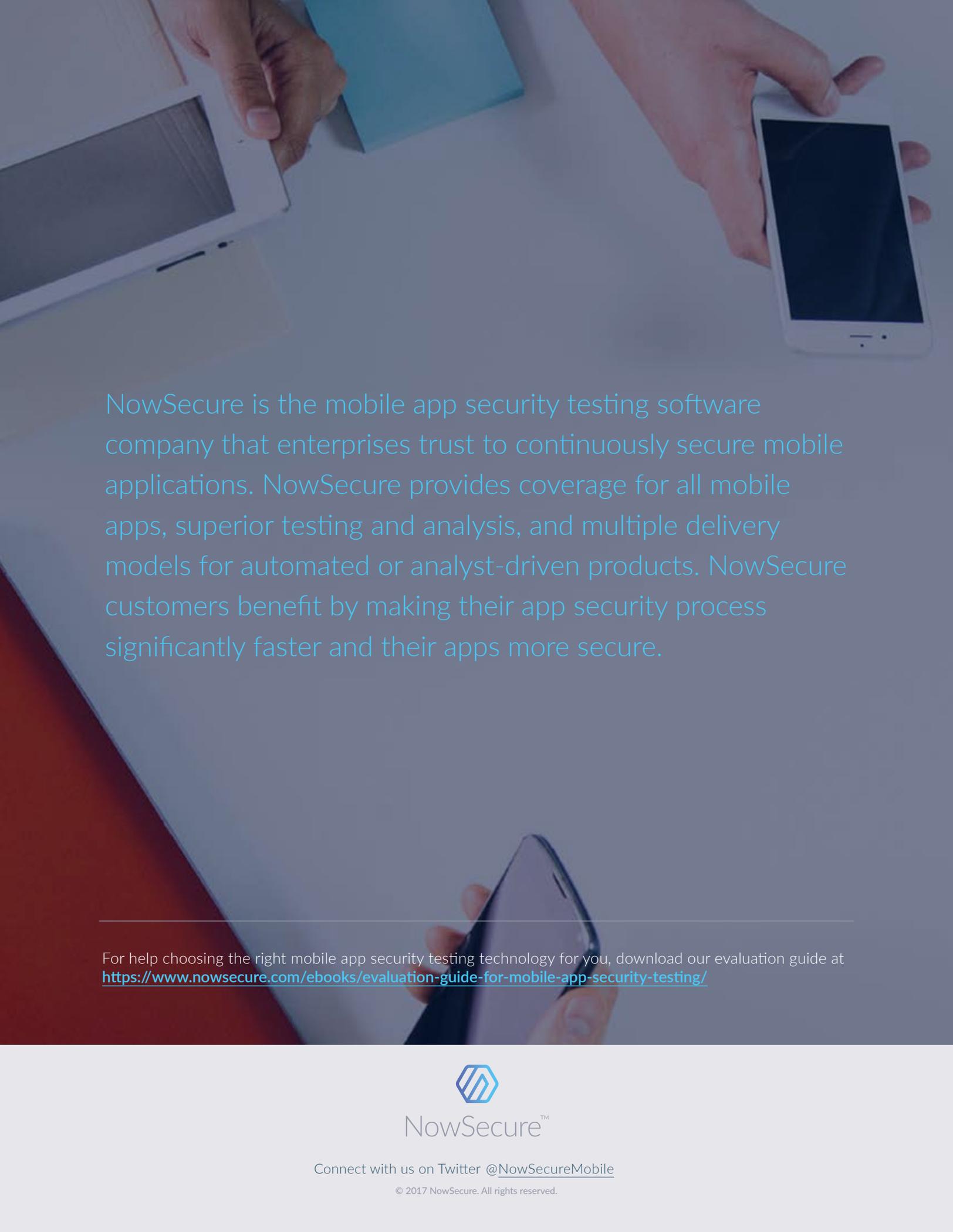
NowSecure is the mobile app security testing software company that enterprises trust to continuously secure mobile applications. NowSecure provides coverage for all mobile apps, superior testing and analysis, and multiple delivery models for automated or analyst-driven products. NowSecure customers benefit by making their app security process significantly faster and their apps more secure.

For help choosing the right mobile app security testing technology for you, download our evaluation guide at
https://www.nowsecure.com/ebooks/evaluation-guide-for-mobile-app-security-testing/

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