Case Study Singlewire and SafeLogic Collaborate to Complete FIPS 140-2 Validation



The Background

When crisis strikes, Singlewire Software often ends up in the news.

With roots at Ground Zero in 9/11 and deployments at academic institutions across the country, Singlewire provides the mass notification tool that facilities are glad to have in an emergency or wish they had, after the fact. Every time there is an incident on the front page, administrators find their way to Singlewire and take steps to ensure the well being of their population in the future. It's a noble undertaking with significant responsibilities.

"Security is of utmost concern due to the nature of the communications," says Pat Scheckel, Executive Vice President of Product Management and Marketing at Singlewire. There is a lot riding on the successful dispatch of emergency information, whether it is in an active shooter lockdown or facing a natural disaster. The idea of compromised communication channels during one of these incidents is not a palatable risk.

The Challenge

The United States government, at the federal level as well as state and local, has taken special care to plan ahead for these crisis situations. Other controlled sites, such as schools, universities, and public utility facilities, have embraced mass notification solutions as well.

For example, Singlewire's unified approach has been successful in compatible solutions alongside technology partner Cisco in the Safer Schools initiative and as shown in these scenario diagrams:



One commonality between the deployments is the mandate for certified benchmarks, particularly to meet requirements published by NIST (National Institute of Standards and Technology). NIST's FIPS 140-2 validation is crucial for the public sector and controlled industries - encryption used for emergency communications must be reliable and validated to meet NIST standards before deployment.

Even when customers were not bound by mandate to confirm FIPS 140-2 certification, CTO Jerry Steinhauer noted that "customer auditors have contacted us in the past about not using FIPS certified algorithms and potentially removing our product if we did not include it." The rising tide of cybersecurity awareness and participation in the public sector ecosystem made NIST validation non-negotiable for vendors in this highly sensitive and competitive space.

Singlewire's Mission

The most valuable asset in your company isn't your equipment. It's not your brand. It's not even your products. The most valuable asset in your company is your people. Your people are the ones who turn concepts into reality, connect your company with the outside world, and devote time and energy to further a shared vision.

At Singlewire, we're dedicated to protecting your most valuable asset. We don't cut corners, and we never stop striving to develop innovative and comprehensive solutions for your toughest safety challenges. We know we're not just developing software; we're providing peace of mind.

Singlewire Software's mission to innovate and secure the most valuable assets in every facility and community – the people – is an effort that SafeLogic is proud to support.



The Solution

With the public sector and regulated customers in mind, Singlewire engaged with SafeLogic to integrate FIPS 140-2 validated encryption within the InformaCast product and attain NIST certification.

For Singlewire's use case, the SafeLogic team configured two modules, one in C with compatibility for the ubiquitous OpenSSL open source architecture, and the other in Java. By selecting these two from SafeLogic's portfolio of CryptoComply modules, Singlewire was able to leverage a single point of contact for support and guidance and standardize the cryptographic protocols used across the product line. The integration was extremely efficient and the ultimate compliance goal spawned additional initiatives.

"Adding FIPS required us to drive other changes in the product (e.g. certificate trust store handling). These were positive changes that we've heard from our partners that they've wanted to see," said CTO Jerry Steinhauer. "Adding FIPS put in the rigor necessary for us to be handling crypto in a consistent way across our products."

NIST published certificates #2951 and #2952 in Singlewire's name in July 2017, reflecting the completed lab testing of both cryptographic modules (Java and C). The accelerated validation of the two crypto engines saved significant heartache for the InformaCast team and reassured their customers that they were indeed in good hands with Singlewire.

"Standardizing our cryptographic strategy with SafeLogic's FIPS 140-2 validated modules has been a net positive for both our customers and our engineering team."



Jerry Steinhauer CTO, Singlewire Software



About Singlewire

Singlewire Software, based in Madison, Wisconsin, is the developer of InformaCast, a leading software solution for fast and reliable emergency notifications. More than 7,000 organizations in over 50 countries use InformaCast for emergency notifications and IP phone paging. Whether it's an active shooter, severe weather, or another crisis situation, InformaCast helps reach the right people, with the right information, to increase awareness, safety and security.

For more information, visit singlewire.com!



About SafeLogic

SafeLogic Inc. was established in 2012 to reduce the time and complexity of integrating and validating world class encryption. Spun out from Apex Assurance Group, which has provided FIPS 140 consulting services to top companies for nearly a decade, SafeLogic delivers innovative security, encryption, and FIPS validation to applications for mobile, wearable, server, appliance, and constrained device environments.

SafeLogic is privately held and is headquartered in Palo Alto, CA.



SafeLogic Inc. 530 Lytton Ave, Suite 200 Palo Alto, CA 94301 (844) 4-ENCRYPTION @SafeLogic info@SafeLogic.com www.SafeLogic.com

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