Case Study

Juniper and SafeLogic Augmented Pulse Mobile Security Suite for In-App Crypto with FIPS 140-2 Compliance

The Background

Juniper's Junos Pulse Mobile Security Suite protects and manages mobile devices, users, and apps. It delivers comprehensive mobile device security, management, monitoring and control, as well as protects smartphones, tablets and other mobile devices from viruses, malware, loss, theft, physical compromise, and other threats.

Junos Pulse empowers enterprises and service providers to enable mobile device security and management, ensuring secure access to corporate networks, internal applications, and sensitive data by mobile devices through a zero-touch deployment model.

The Challenge

Juniper needed a self-contained cryptographic library for management plane encryption. Traditionally, it leveraged native crypto implementations from Android and iOS, which required developers to stay up to speed with the latest APIs from both OS vendors. Further, by using the native OS encryption, data left the application space in order to be secured. This tactic created an additional potential vulnerability.

Junos Pulse needed strong cryptography, not only due to the sensitive data being handled, but also because of mandatory compliance to requirements in regulated markets. Additionally, the Juniper team desired a common crypto API across platforms to streamline short and long term engineering efforts. With the rapidly advancing mobile landscape, time to market is crucial. Juniper needed a solution that could be integrated quickly and with little opportunity cost for precious developer time.

The Solution

Junos Pulse Mobile Security 4.0 incorporated CryptoComply from SafeLogic. When running on iOS and Android devices that support VPN, the Juniper Networks Junos Pulse mobile client application enables the VPN data channel to be FIPS compliant, for even more stringent, secure communications. The option to establish a FIPS compliant VPN data channel is provided by Juniper Networks MAG Series Junos Pulse Gateways running Junos Pulse Secure Access Service, the FIPS-compatible SA6500 FIPS SSL VPN Appliance, or the SA Series SSL VPN Virtual Appliance, once the Junos Pulse client successfully authenticates to the gateway or virtual appliance.

By selecting CryptoComply, Juniper was able to reach all goals - rapid integration, full compliance, and an encryption architecture designed to scale with future versions and requirements across both Android and iOS platforms.

Juniper Networks Achieved FIPS 140-2 Compliance for Pulse Mobile

Juniper needed a FIPS 140-2 library to meet assurance requirements for key markets. Juniper searched for a library that is easy to integrate into mobile development environments and has a common API across platforms.

CryptoComply Meets All Objectives

CryptoComply is a standards-based cryptographic library for servers, appliances, and mobile devices that provides instant compliance for FIPS 140 and Suite B.

SafeLogic enabled Juniper to achieve FIPS compliance in a fraction of the normal time with minimal resources and at greatly reduced overall cost, thanks to the unique "Drop-in Compliance" crypto libraries of CryptoComply.

About Juniper

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking.

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.

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