

Case Study

SUNMI
strengthens
compliance and
helps secure global
payments with
Thales payShield
Cloud HSM

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Company Overview

Founded in 2013, Shanghai Shangmi Technology Group Co., Ltd. (SUNMI) is a leading Internet of Things (IoT) technology company specializing in innovative intelligent commercial hardware. Built on a robust commercial IoT hardware and software platform, SUNMI fosters a business ecosystem that connects hardware manufacturers, SaaS providers, and merchants.

SUNMI is dedicated to advancing the digitalization, interconnection, and intelligence of offline stores by offering a wide range of high-quality IoT devices and integrated “end-to-cloud” services. Together with its ecosystem partners, SUNMI is shaping a fully connected, intelligent commercial world.

Challenges

Building a foundation for secure growth and Business 4.0 in the IoT Era

As a key player in the financial services market, SUNMI is building a robust foundation to support its rapidly growing business while addressing the evolving demands of the IoT era. SUNMI developed a comprehensive peer-to-peer encryption architecture that protects payers, payees, and all transaction details from POS to back-end processing. Security is paramount as SUNMI’s architecture needs to safeguard sensitive information throughout the entire transaction lifecycle.

With a customer base spanning 70 countries, SUNMI faced the challenge of meeting multi-regional compliance standards and securing payment transactions across diverse regulatory environments. Additionally, the payments industry demands compliance with PCI DSS standards, intricate encryption protocols, and secure management of sensitive information. To protect transaction integrity, SUNMI required a solution capable of securely generating, distributing, and managing cryptographic keys while supporting its Remote Key Injection (RKI) system on AWS EC2 and required high availability.

Solution

Cloud-based encryption and secure remote management with Thales payShield Cloud HSM

To meet their needs, SUNMI deployed Thales payShield Cloud HSM as the foundation for its RKI SaaS solution after carefully assessing other cloud HSM options. Thales’ #1 market share in the HSM space gave SUNMI the confidence to align with a proven and widely adopted solution. The strength of the Thales brand, particularly in the European and North American markets, further reinforced their decision as they look to expand their global presence.



	Industry	Technology
	Location	Singapore
	Website	www.sunmi.com

Thales payShield Cloud HSM is a ‘bare metal’ hosted HSM service from the Thales Data Protection on Demand (DPoD) cloud marketplace, delivered using payShield 10K HSMs, providing the secure real-time, cryptographic processing capabilities required by payment workloads running in any of the major public clouds.

Another decisive factor was the localized technical support provided through Thales’ trusted partner, Safeplay. Unlike competitors, Thales and Safeplay offered strong Proof of Concept (POC) support, efficient delivery, PCI and other compliance audit assistance, and tailored business optimization.

Thales payShield Cloud HSM’s wide algorithm and capability coverage also met SUNMI’s diverse requirements, including support for self-defined certificate chains and adherence to industry standards such as TR-31 and TR-34. The solution is certified to PCI HSM v3 and FIPS 140-2 Level 3 standards, providing the highest levels of security assurance. SUNMI manages their LMK and device security through a dedicated payShield Manager portal with smart card login, helping to ensure secure administrative access. These capabilities aligned with their need for a scalable, compliant architecture to support the RKI system.

Thales payShield Cloud HSM also delivered on key operational needs, starting with the ability to sign up on the DPoD marketplace, to eliminating the complexity of in-house security development and reducing integration effort. The solution provides comprehensive management and monitoring tools within the AWS cloud environment, with seamless connectivity to both AWS and Google Cloud platforms.

Results

Delivering secure growth and enabling Business 4.0 innovation

Thales payShield Cloud HSM helps SUNMI successfully strengthen its security framework and achieve PCI certification and other payment regulation compliance. This critical milestone reinforces the security and compliance of their solution, strengthening trust with both customers and partners. The solution's EMV data generation capabilities and multi-regional banking regulation compliance have enabled SUNMI to efficiently process payment transactions across their global operations.

"Thales payShield Cloud HSM has allowed us to reduce integration efforts, eliminate the need for complex in-house security development, and simplify audit compliance for the latest security standards. With faster HSM deployment and efficient troubleshooting, we've saved time and streamlined our operations to better serve customers globally," said Sylvain Zou, Europe Marketing Director at SUNMI.

Thales payShield Cloud HSM helps enable SUNMI to securely generate, encrypt, and manage keys in accordance with PCI requirements, reducing costs and operational complexity through secure remote management. Now, SUNMI can securely manage their devices remotely, eliminating the need to manage physical HSM software and streamlining maintenance and reducing costs while maintaining full control over key operations.

" The deployment of Thales payShield Cloud HSM has simplified our path to secure payments and reduced latency, enabling us to bring our solution to market faster and help deliver seamless, reliable services,"

– Yuli Bao, Product Manager at SUNMI

By leveraging the scalable architecture of Thales payShield Cloud HSM, SUNMI is well-positioned to expand their deployment in the future. By adding additional HSMs to support disaster recovery and exploring new applications such as Certificate Authority management and firmware signing, SUNMI will continue to meet evolving security needs and delivering innovative, secure solutions to their customers worldwide.

About Thales

Today's businesses and governments depend on the cloud, data and software to deliver trusted digital services. That is why the most recognized brands and organizations around the world rely on Thales to help them protect sensitive information and software wherever it is created, stored or accessed – from the cloud and data centers to devices and across networks. As the global leader in data security and software licensing, our solutions enable organizations to move to the cloud securely, achieve compliance with confidence, create more value from their software and deliver seamless digital experiences for millions of consumers every day.

