Nextsense and Thales Deliver Secure Remote Digital Signatures

Enhance Security, Compliance, User Control, and Auditability with Nextsense Signature Activation Module and Thales Luna HSMs

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Building a future we can all trust

In governments and highly regulated industries such as healthcare, telecommunications, finance, and utilities, eIDAS compliant digital signing processes ensure the signatory's identity, authenticity, security, and trust in electronic transactions. As processes become increasingly digital, remote signing has become crucial for simplifying document management. It allows individuals to securely sign documents from anywhere, ensuring that transactions and agreements can be completed smoothly and without delays. This speeds up approval times and enhances overall efficiency, making workflows faster and more streamlined. Signatures can be completed instantly from anywhere, improving efficiency in various processes. Without secure remote digital signing, sensitive documents are vulnerable to manipulation or fraud, putting the organization at risk of data breaches and financial loss, significantly impacting operations, reputation, and legal standing.

Secure Remote Digital Signatures

Nextsense and Thales have partnered to offer a smart and secure remote digital signing solution. Nextsense Signing Suite consists of products and components that enable digital signing, timestamping, sealing, and verification of documents based on security standards and regulations.

As part of the Signing Suite portfolio, the Nextsense Signature Activation Module (NSSAM) generates QES for remote signing. NSSAM capabilities are achieved by utilizing a Thales Luna HSM, a trusted and eIDAS-compliant hardware device that provides a secure and tamper-proof environment.

Key Features and Benefits

Compliant with International Standards

Nextsense Signing Suite ensures that signed documents are secure, trusted, and accepted globally.

- Fully compliant with Electronic Identification, Authentication and Trust Services (EU eIDAS)
- With Assurance Level EAL4 augmented with AVA_VAN.5 according to EN 419 241-2 Trustworthy Systems Supporting Server Signing Part 2: Protection Profile for Qualified Signature Creating Device (QSCD) for Server Signing standard
- Cloud Signature Consortium (CSC) specification
- Compliant with PAdES, XAdES, and CAdES profiles for digital signatures
- Integrated with Luna HSMs, which meet compliance and audit needs with the latest industry certifications, including FIPS 140-3, Common Criteria EAL4+, Brasil INMETRO, NITES and more

Enhanced Security Through Signature Activation Module (SAM)

Integrating a SAM in the Luna HSM provides strong control over the signing process. The NSSAM ensures that only the authenticated and authorized user activates the process of creating QES under the user's sole control. These QES cannot be easily disputed or revoked, supporting legal admissibility. NSSAM is a QSCD for a signing service that adheres to the remote signing requirements as part of the eIDAS regulation.

Key Benefits

- Enhanced security for remote digital signatures by protecting cryptographic keys and operations in a single tamper-resistant environment of a Thales Luna HSM with embedded Nextsense Signature Activation Module (NSSAM)
- Compliant with eIDAS for issuance of Qualified Electronic Signatures (QES) for legal equivalence to handwritten signatures in the EU and eIDAS compliant non-EU countries
- Increased performance and scalability by combining NSSAM and Luna HSM high-performance cryptographic processing powers
- Certified, developer-friendly components for seamless integration into third-party remote signature solutions that allow the addition of secure remote signing to various business applications

Thales Luna HSMs for Secure Digital Signing

Luna HSMs are known for their secure environment for managing and storing cryptographic keys in the hardware root of trust. They ensure that keys cannot be extracted when tampered with and gives sole control for remote QES. All digital signing and verification operations are performed within the HSMs to increase performance and maintain security. Organizations with strict regulatory requirements for key storage or data sovereignty use HSMs to ensure the cryptographic architecture's integrity and compliance obligations.

Luna HSMs are certified in accordance with Common Criteria (CC) at EAL4+ level against the electronic Identification, Authentication and Trust Services (eIDAS) Protection Profile (PP) EN 419 221-5 and have received eIDAS certification as both a Qualified Signature and Qualified Seal Creation Device (QSCD). These certifications provide the highest levels of assurance and conformity for seamless cross-border electronic identification and trust services.
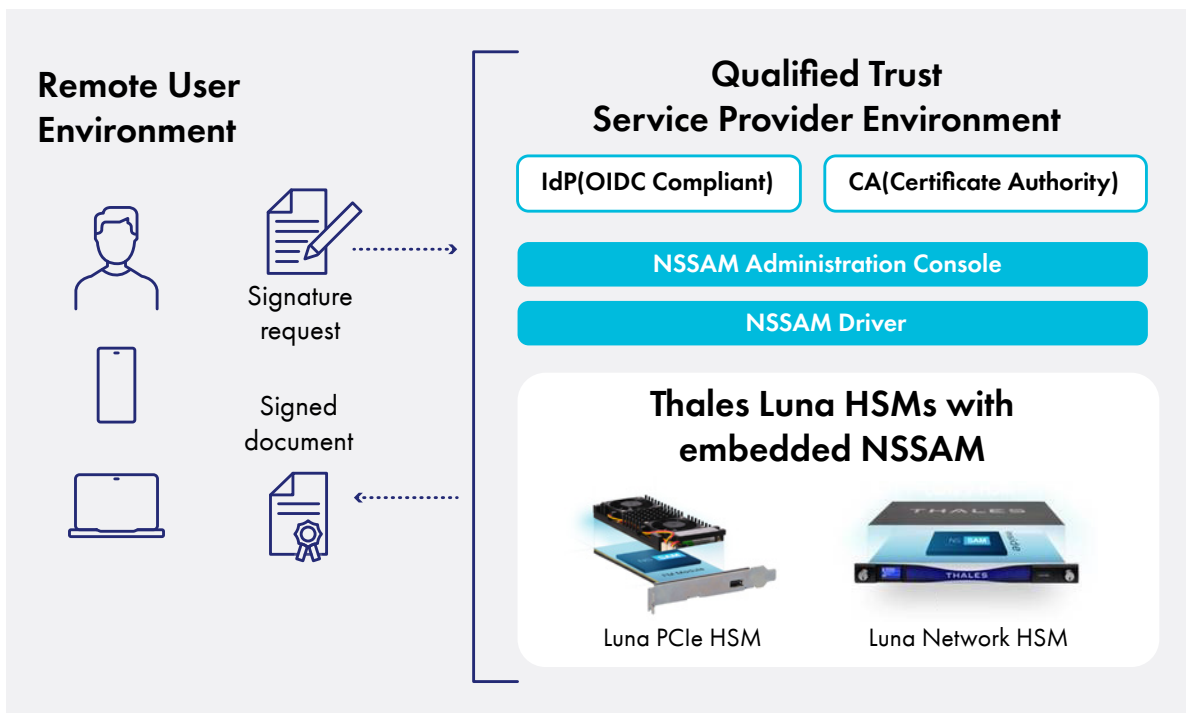
Efficient and Cost-Effective

Nextsense Signing Suite automates the signing process, accelerating transactions across various touchpoints. eSignatures help to minimize human error, such as missing signatures or incomplete documents. Organizations save on printing, mailing, and physical storage costs, making workflows more efficient and cost-effective. The Thales Luna PCI HSM can be embedded in an appliance or application server for an easy-to-integrate and cost-efficient cryptographic acceleration and security solution.

Summary

Nextsense NSSAM, integrated with Thales Luna HSMs, provides a highly secure, Common Criteria EAL 4+ AVA_VAN.5 certified, EN 419 241-2, EN 419 221-5 and eIDAS compliant solution, scalable and robust for secure remote digital signing and cryptographic operations. With industry-leading security, regulatory alignment, and flexible deployment options, it's an ideal solution for organizations in regulated industries seeking to optimize their digital transformation journey while ensuring data security and user trust. Protecting digital signatures from compromise requires mechanisms to secure the cryptographic keys at the heart of the digital signatures, which is why the Nextsense and Thales partnership is essential to guarantee the authenticity and security of digital transactions in today's increasingly digital world.

Nextsense Signature Activation Module and Thales Luna HSMs

Remote User Environment

Signature request

Signed document

Qualified Trust Service Provider Environment

IdP(OIDC Compliant)   CA(Certificate Authority)

NSSAM Administration Console

NSSAM Driver

Thales Luna HSMs with embedded NSSAM

Luna PCIe HSM   Luna Network HSM

About Nextsense

Nextsense specializes in driving complete digital transformation processes and delivering ICT solutions to enhance the business performance of a wide range of organizations. With over 20 years of experience and expertise, Nextsense has established a strong foundation in developing digital solutions for governments and leading enterprises across telecom, finance, and other industries throughout Europe and beyond. The company focuses on envisioning and developing complex ICT solutions, enabling organizations to implement intelligent solutions for automating their internal and customer-related processes. Recognized as a trusted and innovative partner, Nextsense is committed to guiding companies through their digital transformation process.

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, identity & access management, 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.

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