

## nCipher Security

*Empowering global organizations by delivering trust, integrity and control to their business critical information and applications.*





# Introduction

*Today's fast moving digital environment enhances customer satisfaction, delivers competitive advantage and improves operational efficiency. It also multiplies security risks.*

nCipher Security's cryptographic solutions secure emerging technologies – IoT, blockchain, digital payments – and help meet new compliance mandates, with the same proven technology that global organizations depend on today to protect against threats to their sensitive data, network communications and enterprise infrastructure. We deliver trust for your business critical applications, both on-premises and in the cloud, ensuring the integrity of your data and putting you in complete control – today, tomorrow, at all times.

## NCIPHER IN BRIEF

- 20+ years of securing the world's most sensitive data
- Deep expertise in applied cryptography
- Long-standing history of industry certifications and validations
- 100+ partnerships with leading technology providers
- Exceptional technology supported by 32 patents
- Our customers include five of the top 10 Fortune 100 and 10 of the top 20 FTSE 100 companies

# nShield family of HSMs

## GENERAL PURPOSE HARDWARE SECURITY MODULES

nShield is a family of hardware security modules (HSMs) that protect the cryptographic operations and data used by enterprise applications. They provide a certified, hardened, tamper-resistant environment that safeguards cryptographic processing as well as keys for applications that require a high level of trust. nShield HSMs are FIPS 140-2 Level 2 and Level 3 certified and are available in three form factors:

- **nShield Connect:** a network-attached appliance for high-performance data center environments
- **nShield Solo:** a PCIe server-embedded card for high-volume applications
- **nShield Edge:** a USB-connected model for portable, low-volume and developer applications

All nShield HSMs feature the unique nCipher **Security World** architecture, a specialized key management framework. With this proven technology, you can combine different nShield HSM models to build a unified ecosystem that delivers scalability, seamless failover and load balancing.

Additionally, nShield's unparalleled **CodeSafe** capability allows you to ensure the integrity of sensitive applications by running security-critical code within the certified HSM boundary.



nShield Connect



nShield Solo



nShield Edge

# Proven security for a broad range of today's enterprise use cases



## CLOUD KEY PROTECTION AND MANAGEMENT

nShield Bring Your Own Key, based on nShield HSMs, lets you generate strong keys in your on-premises HSMs and securely export these keys to your cloud applications, whether hosted in Amazon Web Services (AWS), Google Cloud Platform (GCP), Microsoft Azure or all three, to gain greater control over your keys in the cloud.



## DATABASE ENCRYPTION KEY MANAGEMENT

nShield HSMs manage and protect your Oracle and Microsoft SQL database encryption keys separately from the data, minimizing the possibility of a data breach.



## PKI AND DIGITAL CERTIFICATES

nShield HSMs and complementary services can help to ensure the integrity, performance and manageability of your Public Key Infrastructure, and create a high-assurance foundation for digital security. nShield HSMs power your PKI with certified, tamper-resistant devices that are used to secure the most sensitive private keys and business processes in the organization—a widely recognized PKI best practice. By taking advantage of products, expertise and services from nCipher, you will be able to operate PKIs with high confidence.



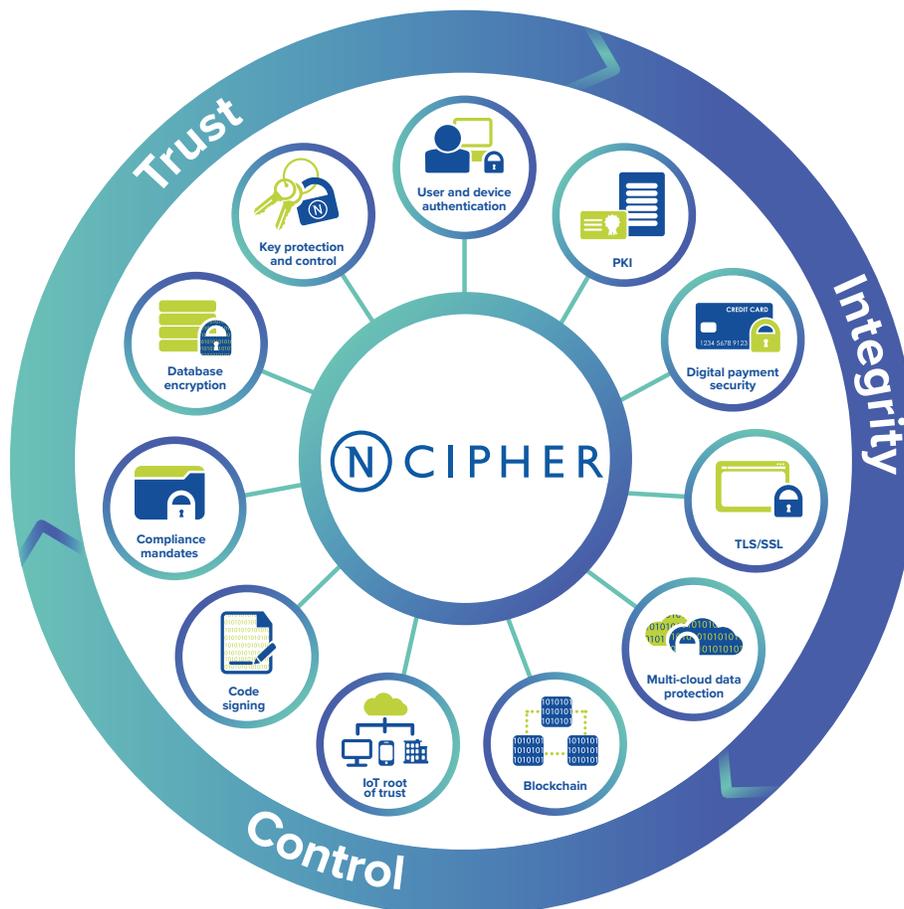
## CODE SIGNING

Designed for software vendors of all sizes and for enterprises that develop their own code, nCipher Code Signing is a comprehensive solution that enables you to implement high assurance, high efficiency code signing processes to protect your software from tampering and bring appropriate governance to your software publishing practices. Combining nShield HSMs with services from the nCipher Professional Services team, the nCipher Code Signing solution is backed by our extensive expertise in code signing best practices.

# Security for emerging use cases

The same security capabilities that global organizations rely on today provide a foundation for tomorrow's applications. While IoT devices often lack built-in security capabilities, there is increasing recognition among manufacturers today that security must be incorporated from the outset. This starts at the factory where security credentials, underpinned by nShield HSMs, are introduced, providing a root of trust for the device throughout its lifetime.

Another emerging use case is the development of applications based on blockchain technology. Here too, nShield HSMs help establish a root of trust by protecting private signing keys as well as helping to secure the consensus logic.



# Digital payment security

nShield HSMs secure digital payment transactions including mobile and card payments as well as a wide variety of custom applications. nShield HSMs underpin payment processing PKIs and are also chosen where elliptic curve cryptography is favored for its strength and efficiency.

For mobile devices where **secure elements** (SEs) are used to protect sensitive applications and customer data, nShield HSMs generate and protect the keys that authenticate the applications that run inside the

SE's protected environment. For **host card emulation** (HCE) services, where some sensitive customer data is stored on the mobile device, nShield HSMs generate and store the keys that protect, through digital signatures and verifications, the loading of payment applications and data.

Additionally, nShield HSMs can protect virtually any custom payment application within the secure HSM boundary using **CodeSafe**.



# Unrivaled professional services

nCipher's Professional Services team delivers data protection services and training designed to help your organization safeguard critical information and data processes, and comply with regulatory and industry mandates.



# Strategic technology partnerships

Our nFinity Technology Partner program delivers advanced solutions for your most complex security challenges. We work with a growing ecosystem of over 100 security solution providers to deliver value and enhanced security to end customers with certified, hardware-based cryptography. Our program, with mature, proven processes backed by technology expertise and global coverage, ensures the strongest customer support.



STRATEGIC TECHNOLOGY  
PARTNER PROGRAM

## About nCipher Security

Today's fast moving digital environment enhances customer satisfaction, gives competitive advantage and improves operational efficiency. It also multiplies the security risks. nCipher Security, a leader in the general purpose hardware security module (HSM) market, empowers world-leading organizations by delivering trust, integrity and control to their business critical information and applications.

Our cryptographic solutions secure emerging technologies—cloud, IoT, blockchain, digital payments—and help meet new compliance mandates, using the same proven technology that global organizations depend on today to protect against threats to their sensitive data, network communications and enterprise infrastructure. We deliver trust for your business critical applications, ensuring the integrity of your data and putting you in complete control – today, tomorrow, at all times. [www.ncipher.com](http://www.ncipher.com)

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