



#### **Key Benefits**

- Secure strong foundation for user identities across enterprise applications
- Control access to on-premises and hosted deployments
- Manage certificate lifecycle, including backup/recovery
- Provide root of trust to safeguard sensitive private keys
- Facilitate regulatory compliance with FIPS and Common Criteria

# The Problem: Increased Need for Trusted Identity Across a Rapidly Expanding Ecosystem

The Internet of Things (IoT), mobile proliferation and the emergence of new requirements — such as supporting issuance of device certificates for Bring Your Own Device (BYOD) programs and IoT networked device enrollment — make strong identity management more important than ever. Public key infrastructure (PKI) solutions are ideally suited to establish trusted identities of users, devices, applications and services for secure access to critical enterprise systems and resources, delivering critical elements of a secure environment.

## The Challenge: Securing the Management of Certification Authority (CA) Keys

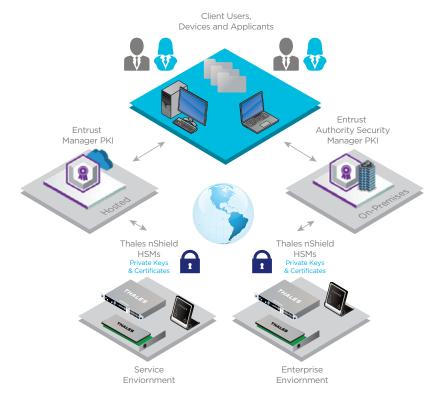
Strong protection for the private keys used by on-premises or hosted PKIs is essential to an effective security strategy. The trustworthiness of a PKI depends on the protection afforded to the private keys in the CA hierarchy and the associated verification processes. CA keys stored and managed in software can be vulnerable to advanced threats that can compromise their security. Dedicated hardware key management enhance security and reduce risk for a trusted business ecosystem.

#### The Solution: An Integrated Solution with a Robust Root of Trust

Entrust Datacard™ and Thales have teamed up to offer a high-performing solution that integrates the best of both company's identity technology to ensure secure identities and efficient deployment. Entrust Datacard PKI solutions establish and manage certificate-based security for critical business applications.

Entrust Authority Security Manager enables customers to deploy and manage their own digital certificates. The product authenticates users, controls access, and secures cryptographic applications. For customers seeking a hands-off approach, Entrust Managed PKI delivers a hosted solution.

Thales nShield hardware security modules (HSMs) integrate with Entrust Datacard PKI offerings to protect the confidentiality and integrity of sensitive keys. Organizations looking to extend the security of on-premises or hosted PKIs can deploy Entrust Datacard solutions with Thales nShield HSMs to ensure that critical keys are never exposed to unauthorized entities. nShield HSMs securely generate, store and manage CA private keys.



Thales nShield HSMs integrate with Entrust Authority Security Manager to protect sensitive cryptographic keys.

### Why Use Thales nShield with Entrust Authority Security Manager and Managed PKI?

While it is possible to deploy PKIs without a hardware root of trusts, CA keys handled outside the cryptographic boundary of a certified HSM are significantly more vulnerable to attacks that can compromise the PKI's credential issuance and certificate revocation capabilities.

The use of HSMs is widely considered best practice for PKI deployments, providing a proven and auditable way to secure valuable cryptographic material. HSMs enable organizations to:

- Secure CA keys within carefully designed cryptographic boundaries that employ robust access control mechanisms with enforced separation of duties to ensure keys are only used by authorized entities
- Ensure availability by using sophisticated key management, storage and redundancy features to guarantee keys are always accessible when needed
- Deliver high performance to support increasing numbers of demanding applications
- The Entrust Datacard Ready certification of nShield HSMs assures interoperability, ease of deployment and enhanced security

Thales nShield HSMs are high-performance cryptographic devices designed to generate, safeguard and manage sensitive key material. Certified to stringent security standards, nShield HSMs:

- Store keys in a secure, tamper-resistant environment
- Comply with regulatory requirements for public sector, financial services and enterprises
- Enforce security policies, separating security functions from administrative tasks
- Support high-performance elliptic curve cryptography (ECC)

Thales nShield HSMs are available to match specific performance and budgetary needs:

- nShield Edge: Portable USB-attached HSM for low-volume offline root CA configurations
- nShield Solo+ and Solo XC: High-performance embedded PCle HSM for servers and security appliances
- nShield Connect+ and Connect XC: High-performance, network-attached HSM for high availability environments

For more detailed technical specifications, please call **888.690.2424**, or visit **entrustdatacard.com** or **thalesesecurity.com**.

#### **About Entrust Datacard**

Consumers, citizens and employees increasingly expect anywhere-anytime experiences — whether they are making purchases, crossing borders, accessing e-gov services or logging onto corporate networks. Entrust Datacard offers the trusted identity and secure transaction technologies that make those experiences reliable and secure. Solutions range from the physical world of financial cards, passports and ID cards to the digital realm of authentication, certificates and secure communications. With more than 2,000 Entrust Datacard colleagues around the world, and a network of strong global partners, the company serves customers in 50 countries worldwide.

For more information about Entrust Datacard products and services, call 888-690-2424, email sales@entrustdatacard.com or visit entrustdatacard.com.

### **About Thales**

Thales e-Security is the leader in advanced data security solutions and services delivering trust wherever information is created, shared, or stored. Security solutions ensure that critical data is both protected and trusted in any deployment – on-premises, in the cloud, in data centers or in big data environments – without sacrificing business agility. Security professionals around the globe rely on Thales to confidently accelerate their organization's digital transformation. Thales e-Security is part of Thales Group.



THALES

**Corporate Headquarters** 

1187 Park Place Shakopee, MN 55379, USA

Phone: 800.621.6972 info@entrustdatacard.com entrustdatacard.com

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