

## CITRIX NETSCALER AND THALES NSHIELD OPTIMIZE SSL TRAFFIC AND SECURELY MANAGE CRITICAL KEYS WITHIN A FIPS-CERTIFIED APPLIANCE

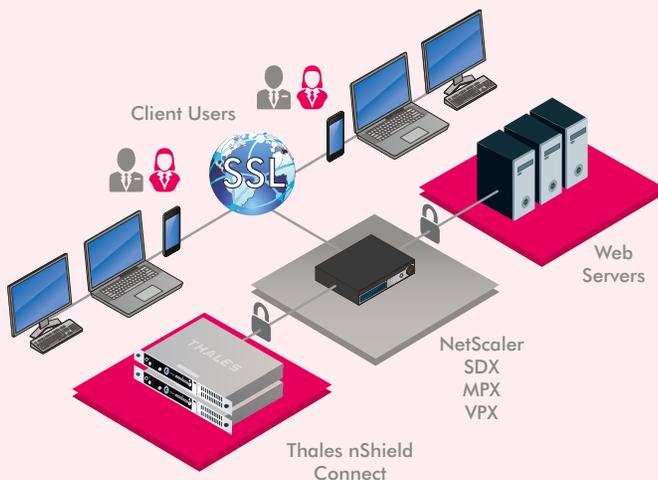
### ► Solution Benefits

- Delivers high performance, availability, scalability, and trust for today's application infrastructures
- Supports virtual and cloud-based environments
- Provides centralized SSL key storage and management
- Offers a robust FIPS 140-2 Level 3 certified platform
- Facilitates compliance with data security regulations



Thales e-Security

# Citrix and Thales Deliver High Performance and Robust Security to Application Infrastructures



nShield Connect HSM integrates with NetScaler application delivery controllers to enhance the security of SSL keys.

### The Problem: Business critical Web/SaaS applications that handle sensitive information are at increased risk

- With the expansive growth of the internet and online transactions, confidential information exchanged online and especially in the cloud can be intercepted and exploited. Secure sockets layer (SSL) connections protect sensitive information, but encrypting the data alone is not enough. A compromise of SSL encryption keys can lead to a compromise of SSL sessions – exposing the encrypted data flowing through SSL tunnels between end user devices and web servers.

### The Challenge: Protecting high volume SSL traffic without impacting application performance and user experience

- SSL is resource intensive. It demands high utilization of servers to meet application performance and availability requirements, which results in higher cost. Increased volume of SSL-encrypted traffic over multiple channels and simultaneous connections also creates a key management nightmare. Encryption keys must be protected and managed in a trusted manner for security and compliance with regulations.



## CITRIX AND THALES DELIVER HIGH PERFORMANCE AND ROBUST SECURITY TO APPLICATION INFRASTRUCTURES

### The Solution: NetScaler and nShield deliver optimum performance, availability, scalability and trust

NetScaler is equipped to handle very high volume SSL traffic and manage all terminating connections without impacting application performance. NetScaler protects data traffic using SSL encryption. Organizations in regulated markets such as government, healthcare, and finance that process highly sensitive data seek to enhance the security of their SSL sessions by protecting the SSL key management process.

With growing use of cloud-based, virtual, and multi-tenant services, customers want to utilize virtual and multi-tenant appliances such as NetScaler VPX, MPX, and SDX with enhanced SSL key management. Thales nShield manages large number of SSL keys within a FIPS 140-2 Level 3 certified environment. The combined Citrix and Thales solution optimizes SSL traffic and securely manages the critical cryptographic keys to minimize the exposure of sensitive data within the IT infrastructure.

### Why use Thales nShield HSMs with the Citrix NetScaler appliance

SSL keys handled outside the cryptographic boundary of a certified HSM are significantly more vulnerable to attacks which could lead to disclosure of confidential information. HSMs are the only proven and auditable way to secure valuable cryptographic material such as SSL keys. HSMs enable organizations to:

- **Secure keys and certificates** within carefully designed cryptographic boundaries that use robust access control mechanisms, so keys are only used for their authorized purpose.
- **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 transaction rates.

### Thales

nShield Connect is a high performance, network-attached HSM for high-availability web server and data center environments. Certified to stringent security standards, nShield Connect:

- Stores keys for signing and issuing digital certificates in secure and tamper resistant environment.
- Complies with regulatory requirements for public sector, financial services, and enterprises.
- Manages administrator access with smart card-based policy and two-factor authentication.
- Administers unattended HSMs in remote locations and eliminates need to delegate authority.

### Citrix

NetScaler maximizes performance and availability of all applications and data by providing the following capabilities:

- L4-L7 traffic management – including server load balancing, global load balancing, L7 content switching, database load balancing, TriScale clustering, and rate-based policy enforcement.
- Application acceleration such as TCP optimization for multiplexing and AppCompress for compression and caching.
- Application security for DoS attack defense, content rewriting/response control, as well as DNSSEC and packet filtering.
- Application visibility and unique troubleshooting tools such as Visualizer and NetScaler Insight Center simplify installation and management with customer friendly user interface and policy management.

For more detailed technical specifications, please visit [www.thales-esecurity.com](http://www.thales-esecurity.com) or [www.citrix.com](http://www.citrix.com)

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