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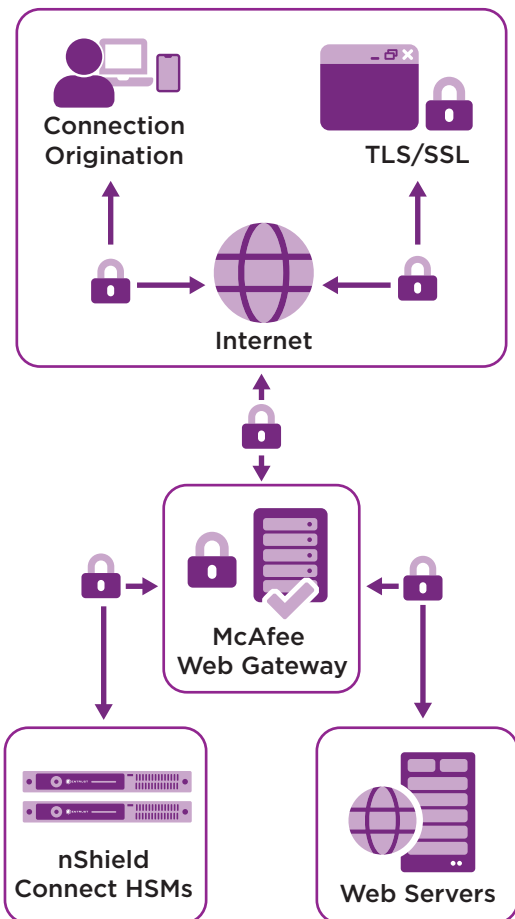


# Entrust nShield HSMs Enhance the Security of McAfee Web Gateway

Advanced protection against hidden malware and other sophisticated attacks

## HIGHLIGHTS

- Comprehensive security for all aspects of web traffic, through an on-premises appliance or a cloud service
- Full integration with Entrust nShield® Connect Hardware Security Modules to ensure secure, efficient key storage
- Protection and management of large numbers of critical TLS/SSL keys and certificates within a dedicated, hardened device, ensuring that keys are never exposed to unauthorized entities
- Easy setup for enhanced performance and traffic volume



**McAfee™**

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# Entrust and McAfee Integrated Solution

## THE PROBLEM

### Internet attacks have become more sophisticated

The internet is fundamental to doing business today. Cloud applications, wikis, and content-sharing sites have become essential business tools for enterprise users. But IT organizations are struggling to make them safely accessible from inside and outside the corporate environment as attacks increase in sophistication.

## THE CHALLENGE

### Hidden malicious code

Reactive techniques, such as signature-based antivirus and category-only URL filtering – while necessary – are insufficient to protect access to cloud applications or combat today’s exploits. Since these solutions focus on known content and malicious objects or executables, they can’t prevent attacks that hide malicious code within seemingly trustworthy HTTP or HTTPS traffic, or provide protection against unknown or emerging threats. The ability to enable secure, granular access to cloud applications, while proactively blocking unknown as well as known threats, is crucial.

## THE SOLUTION

### Entrust and McAfee together deliver high performance and enhanced security

McAfee Web Gateway delivers web traffic security in one high-performance appliance software architecture. For user-initiated web requests, McAfee Web Gateway first enforces an organization’s internet use policy. For all allowed traffic,

it analyzes all content and active code entering the network via the requested web pages, providing immediate protection against malware and other hidden threats. And, unlike basic packet inspection techniques, McAfee Web Gateway can examine secure sockets layer (SSL) traffic to provide in-depth protection against malicious code or control applications that have been hidden through encryption.

Organizations looking to further extend their McAfee Web Gateway platform can deploy Entrust nShield hardware security modules (HSMs) to achieve operational efficiency and high assurance. nShield HSMs can protect the large amount of private keys used in TLS/SSL communication, and can take over those private key operations for enhanced performance.

nShield HSMs secure the private keys for the Web Gateway’s certificate authority (TLS/SSL scanning – forward proxy), the “domain” key (TLS/SSL scanning – forward proxy), any web server certificates (for reverse proxy), and client certificates (forward proxy – used in server-side communication). Entrust nShield HSMs also support the clustering mode of McAfee Web Gateway, meaning that a web gateway can share the HSM capabilities with other web gateways.

When deploying McAfee Web Gateway as virtual machines on an Azure platform, it is also possible to use Entrust nShield HSMs to generate the Azure tenant key using the BYOK (“Bring Your Own Key”) method on Azure Key Vault, and use this private key for certificates that are required to enable cloud communication with clients over TLS/SSL-secured connections.



# Entrust and McAfee Integrated Solution

## Why use Entrust nShield HSMs with McAfee Web Gateway?

While it is possible to terminate TLS/SSL connections in a dedicated appliance, TLS/SSL keys handled outside the cryptographic boundary of certified HSMs are significantly more vulnerable to attacks, which can lead to compromise of critical keys. HSMs are the only proven and auditable way to secure valuable cryptographic material.

Entrust nShield HSMs integrate with McAfee Web Gateway to 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 accessible when needed by McAfee Web Gateway
- Deliver high performance to support increasingly demanding transaction rate

nShield Connect HSM is a high-performance, network-attached device for high-availability web server and data center environments. It is also available via a subscription-based service. Certified to stringent security standards, nShield Connect:

- Interfaces with applications using industry-standard APIs (PKCS#11, OpenSSL, JCE, CAPI, CNG, nCore, and nShield Web Services Crypto API)
- 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
  - Supports high-performance elliptic curve cryptography (ECC)

## About Entrust nShield HSMs

Entrust nShield HSMs are among the highest-performing, most secure, and easiest-to-integrate HSMs available. They help facilitate regulatory compliance and deliver the highest levels of data and application security for enterprise, financial, and government organizations. Our unique Security World key management architecture provides strong, granular controls over access and usage of keys.

To find out more about Entrust nShield HSMs visit [entrust.com/HSM](http://entrust.com/HSM). To learn more about Entrust's digital security solutions for identities, access, communications, and data visit [entrust.com](http://entrust.com)

## About McAfee

McAfee is the device-to-cloud cybersecurity company. Inspired by the power of working together, McAfee creates business and consumer solutions that make our world a safer place. McAfee Web Gateway is a security solution that prevents unsecured traffic from entering an internal network of an organization. It is used by enterprises to protect their employees/users from accessing and being infected by malicious web traffic, websites, and virus/malware. For more information visit [mcafee.com](http://mcafee.com)

To find out more about  
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[entrust.com/HSM](https://entrust.com/HSM)

## ABOUT ENTRUST CORPORATION

Entrust keeps the world moving safely by enabling trusted identities, payments, and data protection. Today more than ever, people demand seamless, secure experiences, whether they're crossing borders, making a purchase, accessing e-government services, or logging into corporate networks. Entrust offers an unmatched breadth of digital security and credential issuance solutions at the very heart of all these interactions. With more than 2,500 colleagues, a network of global partners, and customers in over 150 countries, it's no wonder the world's most entrusted organizations trust us.

Learn more at  
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