Entrust nShield as a Service for Micro Focus Voltage SecureData

## Simplified access to cryptography as a service

HIGHLIGHTS

- Keep full control of keys, regardless of where applications are running

- Provide high performance nShield Connect hardware security module (HSM) dedicated to each client

- Maintain FIPS certification within nShield HSM protected boundary

- Support multiple datacenters for security compliance and high availability

- Migrate existing nShield Security World seamlessly to nShield as a Service

The problem: controlling cryptographic keys as enterprises migrate to the cloud

In today's fast moving enterprise IT environment, "cloud first" is a common strategic aim. By shifting to the cloud, organizations benefit from its scale, flexibility, and resilience. Organizations seek reduced maintenance burdens and predictable monthly operational expense. Maintaining control of the keys that protect applications and the sensitive data processed is mandatory for security and compliance.

The challenge: maintaining high assurance security in the cloud

Traditionally housed in on-premises datacenters and managed by on-site security teams, HSMs secure corporate data and form an important part of the organization's critical infrastructure. With the shift to the cloud, organizations seek
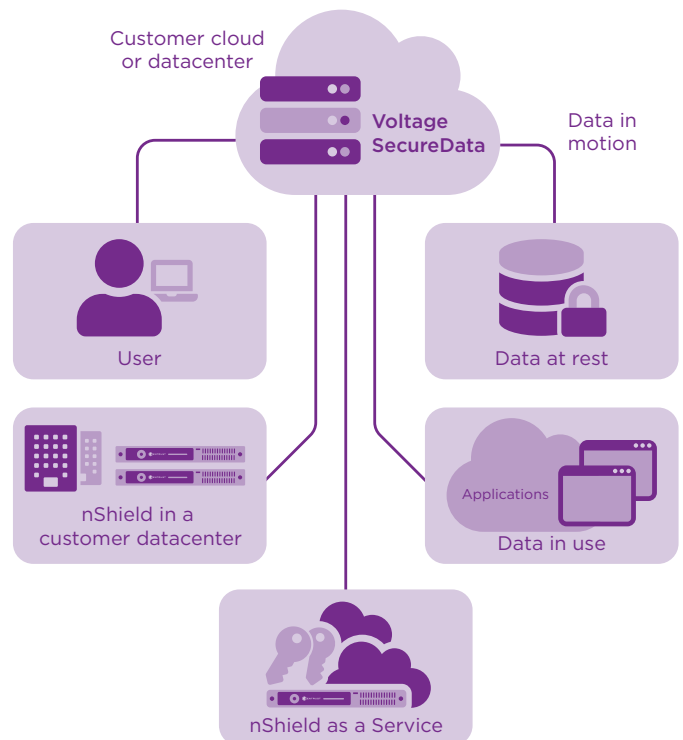
Voltage SecureData customers using Entrust nShield® HSMs on premises can easily migrate cryptographic services to nShield as a Service to protect encryption keys and establish a root of trust.

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to continue to use the enhanced security offered by HSMs. Efficient access to the services of a dedicated cloud-based HSM is necessary to ensure robust security and compliance as enterprises shift to this new business paradigm.

The solution: Micro Focus Voltage SecureData and Entrust nShield as a Service

Voltage SecureData addresses the confidentiality and privacy needs for data at rest, in motion, and in use by enterprise critical processes and analytic applications. The solution employs next-generation technologies such as Hyper Format Preserving Encryption (Hyper FPE), Hyper Secure Stateless Tokenization (Hyper SST), Format-Preserving Hash (FPH), and data masking to encrypt and de-identify data, while preserving original formats. Voltage SecureData maintains referential integrity for processes, applications, and services, while rendering data valueless to cyber-attackers. The solution significantly reduces administrative staff burden and IT costs, allowing enterprises to focus on their business with data protection and privacy compliance enabled. Using Voltage Stateless Key Management, keys are derived on the fly, eliminating the need for a key database, storage, replication, and backup.

Voltage SecureData integrates nShield as a Service to enable customers to easily migrate cryptographic keys from existing nShield on-premises deployments. nShield as a Service is a subscription-based solution for generating, accessing, and protecting key material separately from sensitive data. Using dedicated and certified nShield Connect HSMs, the cloud-hosted model gives organizations the option to either supplement or replace HSMs in their datacenters, while retaining the same benefits as owning the appliances.

Deployed globally in geographically dispersed datacenters, nShield as a Service integrates seamlessly with Micro Focus Voltage Stateless Key Management, providing trust assurance by hosting the master root key for the key derivation function in a hardened device. Critical encryption, decryption, and key management processes run using CodeSafe, a unique capability that enables secure code execution inside the physical FIPS 140-2 Level 3 hardened tamper-resistant environment, away from possible malware or insider attacks. Only nShield as a Service allows customers to seamlessly migrate, on-demand, their secure code execution from an on-premises HSM to the cloud.

Why use nShield as a Service with Voltage SecureData?

nShield as a Service allows enterprises to budget for security more predictably, manage capacity based on demand, reduce their datacenter footprints, and decrease the time spent on routine maintenance and monitoring. Subscribed customers interact with the cloud-based nShield HSMs in the same way that they would with appliances in their datacenters, but no longer need to receive, install, and maintain physical hardware. This results in faster deployment of secured applications. nShield as a Service offers customers a subscription to a dedicated HSM with full control of their cryptographic keys and full separation of duties for enhanced security.

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The Self-Managed nShield as a Service option enables customers to use the remote administration capabilities just as if they were managing their own nShields in their datacenter, even when choosing one or more cloud services. Customers wishing to leave management and maintenance to the experts at Entrust can chose the Fully-Managed option, while still maintaining control over their keys. The managed service readily supports hybrid cloud deployments and offers easy key migration should data repatriation from a cloud service provider (CSP) to on-premises deployment be required.

Regardless of the option chosen, customers own their keys and may utilize these across their entire nShield environment using the nShield Security World key management architecture. nShield HSMs are certified to FIPS 140-2 Level 3, Common Criteria EAL4+ and eIDAS (EN 419 221-5 protection profile).

nShield Features	Cloud-based	On-premises
Scalable, flexible, cost effective deployment (replaces CapEx with OpEx)	●	
Decrease maintenance / monitoring time	●	
Free-up internal security resources	●	
Support multiple datacenters	●	
Maintain full control over critical keys	●	●
Transfer security officer role to trusted Entrust personnel	Fully-managed	
Access to high performance nShield (Connect XC-High)	●	●
Secure keys and execution code within FIPS 140-2 certified physical boundary	●	●
Ensure high availability guaranteeing keys are always accessible when needed	●	●

nShield as a Service delivers extended benefits over nShield on-premises deployments. As Voltage SecureData customers increasingly migrate storage and workloads to cloud-based environments, they are looking to establish an HSM-based root of trust in the cloud that can maintain the highly available, highly performant data-centric solution they enjoy.

Entrust HSMs

Entrust nShield HSMs are among the highest-performing, most secure and easy-to-integrate HSM solutions available, facilitating regulatory compliance and delivering 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.

Micro Focus Voltage

Micro Focus is a global software company with 40 years' experience delivering and supporting enterprise software solutions that help customers innovate faster with lower risk. Micro Focus® Voltage data security solutions enable advanced Hyper Format-Preserving Encryption, Hyper Secure Stateless Tokenization, Stateless Key Management and data masking to protect high-value regulated data in enterprise applications, data processing infrastructure, hybrid IT/cloud, payment ecosystems, mission-critical systems, storage, and big data/IoT analytics platforms. For more information, please visit us at **www.microfocus.com**

Learn More

To find out more about Entrust nShield HSMs visit entrust.com/HSM. To learn more about Entrust's digital security solutions for identities, access, communications and data visit **entrust.com**

To find out more about Entrust nShield HSMs

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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.

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