

### Standards-based single sign-on solution with FIPS certified cryptography for access to on-premises and cloud-based resources

- Enables managed access to resources across the enterprise
- Removes the need for multiple sign-on to on-premise or cloud-based enterprise services
- · Enables rapid deployment and scalability with an off-the-shelf multi-domain access solution
- Enhances trust with FIPS and Common Criteria-certified standards-based single sign-on
- o Delivers best-of-class identity management with protected token signing and encryption

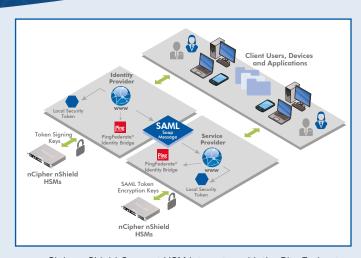
# nCipher high assurance for Ping Identity federated identity management

## THE PROBLEM: HOW TO PROVIDE USERS WITH EASY AND SECURE ACCESS TO THEIR INFORMATION AND APPLICATIONS – FROM ANYWHERE AND ON ANY DEVICE

From smartphones to tablets to cloud-based applications, today's enterprise users have more ways to access their data than ever before – and they expect to get access quickly and easily. To satisfy enterprise security requirements and user demands, organizations require a comprehensive identity management system.

#### THE CHALLENGE: SINGLE SIGN-ON SOLUTIONS ACROSS A FEDERATED ENVIRONMENT REQUIRE STRONGER SECURITY

Single sign-on solutions give users seamless access to any application from any device. But managing the identities of employees, customers, and partners access across different domains requires stronger security than what these solutions are designed to deliver, particularly when many identities exist in the cloud. As users increasingly bring their own devices to the organizational environment, this presents additional challenges in keeping business and personal data secure and private. Since single sign-on solutions contain an increasing number of user credentials under one umbrella, they have become a highly valuable target that must be protected. Compromise of the system can have far-reaching corporate consequences and service interruptions can result in a widespread denial of access.



nCipher nShield Connect HSM integrates with the PingFederate enterprise identity bridge to protect the SAML token signing and encryption keys within a high assurance environment, enabling keys to be exchanged between Web servers using Simple Object Access Protocol (SOAP).



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Ping Identity and nCipher deliver centrally managed secure identity management with strong authentication and authorization for enterprise services, networks and applications

## THE SOLUTION: PING IDENTITY AND NCIPHER HARDWARE SECURITY MODULE (HSMS) DELIVER A HIGH PERFORMANCE SOLUTION FOR MANAGING ACCESS

PingFederate supports single sign-on, providing enterprise users easy access to their information and applications. It eliminates the need for multiple sign-on usernames and passwords and allows users to share their identities between web applications and organizations.

PingFederate complies with single sign-on and federated identity standards including Security Assertion Markup Language (SAML), WS-Federation, WS-\*, OAuth, OpenID, OpenID Connect and System for Cross-domain Identity Management (SCIM). Leveraging these identity standards, PingFederate secures user access to enterprise and cloud-based resources across organizational domains and via mobile devices.

For the highest levels of identity security, PingFederate can be deployed with a nCipher network-based nShield Connect hardware security module (HSM). nCipher HSMs are high-performance network-attached and tamper-resistant devices that deliver secure cryptographic services. The devices enable organizations to sign and encrypt tokens that supplement SAML token processing and generation. The HSM provides strong integrity and authenticity to protect critical signing and SSL keys, ensuring that keys are never exposed to unauthorized entities. In addition, the nCipher HSM provides centralized key management and can be configured for high availability failover and load balancing. Integration of PingFederate with nCipher nShield Connect provides FIPS 140-2 Level 3 and Common Criteria EAL4+ certified protection.

#### WHY ARE HSMS CRITICAL TO IDENTITY MANAGEMENT?

While it's possible to deploy an identity management platform in a purely software-based system, this approach is inherently less secure. Token signing and encryption keys handled outside the cryptographic boundary of a certified HSM are significantly more vulnerable to attacks that could compromise the token signing and distribution process. HSMs are the only proven and auditable way to secure valuable cryptographic material and deliver FIPS-approved hardware protection.

HSMs enable your enterprise to:

- Secure token signing keys within carefully designed cryptographic boundaries, employing robust access control mechanisms with enforced separation of duties in order to ensure that keys are only used by authorized entities
- Ensure availability by using sophisticated key management, storage and redundancy features
- Deliver high performance to support increasingly demanding enterprise requirements for access to resources from different devices and locations

#### **NCIPHER**

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

- Stores keys for signing and issuing digital certificates in a secure and tamper resistant environment
- Complies with regulatory requirements for public sector, financial services and enterprises
- Manages administrator access with smart card-based policies and two-factor authentication
- Provides administration for unattended HSMs in remote locations and eliminates the need to delegate authority
- Supports high performance elliptic curve cryptography (ECC)

#### PING IDENTITY

PingFederate enables SSO and Identity Management for Customers, Partners and Employees. It is a lightweight and powerful identity bridge that delivers a comprehensive identity management solution for federated access to applications using existing identity infrastructure

- Provides 80 pre-packaged integration kits
- Connects to any identity store and application, on-premises and in the cloud
- Deploys anywhere in less than a day

For more detailed technical specifications, please visit www.ncipher.com or www.pingidentity.com













