ChemAxon Finds the Right Solution with Entrust nShield HSMs

Challenge

ChemAxon serves the chemical and biological industries with software that is delivered to customers through the Microsoft Windows Platform (among others). Since Microsoft introduced its SmartScreen malware filter, ChemAxon needed to add extended validation (EV) certificates to verify that its software is genuine for secure installation in Windows environments. Signing software requires that EV certificates be sourced from a trusted certificate authority using encryption keys secured by master keys protected in a hardware security module (HSM) for high assurance.

Solution

The company installed Entrust nShield® HSMs in its data center to assist with PKCS#11 code signing and help ensure compliance with Windows application builds.

Results

- Compliance with Microsoft SmartScreen trust platform ensures current and future versions of ChemAxon's software are trusted in Windows environments
- Integration of distributed hardware key management with Java development workflow

ChemAxon

Learn more about our HSMs at Entrust.com/HSM

CUSTOMER PROFILE

ChemAxon is a cheminformatics and bioinformatics software development company specializing in cloud-based, end-user solutions, backend platforms, and consultancy services for chemical and biological research. The company is headquartered in Budapest, Hungary, and has ~200 employees.

Objectives

- Compliance with Microsoft SmartScreen trust platform ensures current and future versions of ChemAxon's software are trusted in Windows environments
- Integration of distributed hardware key management with Java development workflow
- Ability to migrate to a cloud-based solution in the future

Technology and Services

- Entrust nShield HSMs
- Entrust Professional Services

ChemAxon Case Study

> **It's imperative that our customers can trust the applications that they install from us, and for Windows users that means certification with Microsoft SmartScreen. When meeting these requirements required the introduction of a hardware-based key management system, Entrust was with us to provide the HSMs we needed and to deliver the support required to get them working as we needed. Also Entrust as a certificate authority was able to provide us with the necessary EV Code Signing Certificate to complete the workflow.**
>
> Sandor Juhasz, System Administrator, ChemAxon

THE TRANSFORMATION

When Microsoft introduced SmartScreen, ChemAxon's organization validation (OV) SSL certificates needed an upgrade to meet the stringent requirements to be considered trusted. Achieving these new security requirements required an HSM to manage encryption keys. After evaluating several options, the company installed Entrust nShield HSMs in its data center as part of its PKCS#11 code signing workflow.

ChemAxon's choice of the Entrust solution was based on its ability to integrate with the company's existing Java-based workflow. The HSM securely stores and manages the encryption keys generated in this process.

During the installation, Entrust professional services was able to provide the necessary insight and support to help ChemAxon meet certification requirements for Microsoft SmartScreen approval.

The Entrust advantage

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. The purpose-built hardware devices are designed to generate, safeguard, and manage cryptographic keys on behalf of applications. The unique nShield Security World key management architecture enforces important separation of duties with dual controls that segregate security functions from administrative responsibilities.

For more information visit entrust.com/HSM

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