

VECTERA PLUS

Hardware Security Module



GENERAL PURPOSE HARDWARE SECURITY MODULE

ADVANCED HSM TECHNOLOGY FOR CROSS-INDUSTRY APPLICATIONS

The Vectera Plus is a general purpose hardware security module that excels in the most demanding cryptographic processing environments. The Vectera Plus combines high processing speeds and support for the world's most advanced encryption algorithms within a FIPS 140-2 Level 3 validated secure cryptographic device. With speed, scalability, and redundancy, the Vectera provides physically robust security that meets and exceeds all relevant compliance standards. From securing databases and applications to protecting sensitive intellectual property and customer data, the Vectera Plus fills incredibly varied roles across innumerable industries.



The Vectera Plus combines the best of both general purpose and financial data processing. The benefits of this multifunctional hardware are wide-ranging: reduced up-front capital expenditure, lower overhead costs for maintenance, simplicity of training, and reduced time involved in integrating cryptographic functionality with client applications.

SECURE CODE ENVIRONMENT

The Vectera Plus' Secure Code Environment provides a powerful, versatile, and extensible solution for organizations wishing to develop their own applications and operate them from within a secure, isolated, FIPS 140-2 Level 3-compliant environment.

The Vectera Plus offers a high level of flexibility in the application development process and provides an easy method for organizations to increase the value of their HSM infrastructure by developing applications in Java, PKCS #11, Microsoft CNG, and many other common cryptographic libraries.

FEATURES AT-A-GLANCE

- FULL INDUSTRY COMPLIANCE
- HSM VIRTUALIZATION
- GENERAL PURPOSE ENCRYPTION
- FINANCIAL ENCRYPTION
- FUTURE-PROOF SCALABILITY
- VIRTUCRYPT CLOUD SERVICE INTEGRATION

DYNAMIC HSM VIRTUALIZATION



- HSM virtualization allows a single Vectera Plus to function as multiple logically separated virtual HSMs, each with their own customizable firmware, security policy, and configurations.

FINANCIAL AND GENERAL-PURPOSE ENCRYPTION

- The Vectera Plus offers functionality for a variety of APIs and cryptographic algorithms, making it ideally suited for both general purpose and financial encryption applications.

PRODUCT OVERVIEW: VECTERA PLUS

HARDWARE FEATURES



- Hardened steel 1U tamper-resistant chassis
- Dual, redundant, hot-swappable power supplies
- Dual gigabit ethernet ports
- Battery backup for keys in SCD memory
- Secure Cryptographic Device (SCD) with tamper-responsive barrier to protect sensitive data

APPLICATION PARTITIONING



- Optimize resource utilization and apply application-level permissions through application partitioning
- Segregate key storage locations, giving individual applications control over their own keys and security policies through API function blocking
- Capable of creating an industry-leading 250 application partitions per Vectera Plus HSM or virtual HSM instance

BOUNDLESS CRYPTOGRAPHIC TASKS



- General purpose data protection tasks, including encryption, decryption, validation, and certifications.
- Secure corporate domains with DNSSEC
- Secure data for manufactured Internet of Things (IoT) devices
- Tokenize sensitive information for data types including medical, academic, insurance, and military, or general corporate intellectual property at rest or in transit

EXCRYPT MANAGER GUI



- Full graphical user interface (GUI) makes configuration simple and easy
- No command line interface required for installation and initial setup
- Scalable architecture, with the ability to increase processing throughput rates without downtime

REPORTING AND AUDIT LOGGING



- Automatically transmit data logs to a remote server for internal and external audits
- Digitally sign log files, ensuring that data integrity is maintained and that logs cannot be altered
- Remotely access and audit internal logs via the Vectera Plus web-based management interface

FUTUREX.COM

ENGINEERING CAMPUS / 864 OLD BOERNE ROAD, BULVERDE, TEXAS 78163 USA
TF/ (800) 251-5112 P/ +1 (830) 980-9782 INFO@FUTUREX.COM

PRODUCT SPECIFICATIONS

DIMENSIONS AND WEIGHT

Weight: 26.1 pounds (11.8 kg)

Width: 19 inches (48.26 cm)

Height: 1U – 1.72 inches (4.37 cm)

Depth: 11.3 inches (28.70 cm)

INDUSTRY COMPLIANCE STANDARDS

- FIPS 140-2 Level 3 Validated
- PCI HSM 2.X
- ANSI X9.24 Part 1 and Part 2—TR-39
- RoHS
- FCC Part 15 - Class B

INSTANT SCALABILITY

Effortlessly increase your infrastructure's throughput capacity without downtime



CRYPTOGRAPHIC INTERFACES

- Excrypt API
- JCA/JCE
- PKCS #11
- MS CAPI/CNG

WEB BROWSER BASED ADMINISTRATION TOOL

- Upgrade firmware
- Update network settings
- Execute secure application code
- Alter host software application parameters
- Performs virtually all configuration functions

SUPPORTED KEY TYPES AND ALGORITHMS

- 3DES
- AES (128-256)
- DSA (512-4096)
- HMAC
- ECC
- RSA (512-8192)
- SHA-1 (256-512)
- SHA-2 (256-512)
- PKCS #11

KEY STORAGE

All keys are stored within the physically secured boundary of the Vectera Plus' cryptographic module. Clear keys are never removed from the HSM boundary.