Data Sheet

KeyBRIDGE eKMS Solution

The KeyBRIDGE 4100 eKMS is the natural evolution of the original KeyBRIDGE concept to achieve an enterprise encryption key management solution. It maintains support for the generation, import, and distribution of any key type.

KeyBRIDGE eKMS™ (enterprise Key Management System)

GEOBRIDGE recognizes that the need for reliable data protection is increasing and the number of keys used to protect that data is also increasing. Expanding upon the KeyBRIDGE 4100 platform, the KeyBRIDGE Enterprise Key Management System (eKMS) was designed to help customers solve a growing enterprise problem: consistent, centralized key lifecycle management. With KeyBRIDGE, customers are able to generate, import and export keys quickly and efficiently, tracking all the key details in a single location.

HSM Management

KeyBRIDGE eKMS solution enables organizations to securely manage and store keys and sensitive data for the entire enterprise in a single, centralized location. By integrating HSMs from manufacturers including UTIMACO (Atalla), Thales and SafeNet customers can perform key management functions through a single, easy-to-use interface.

The KeyBRIDGE interface allows customers to add and connect additional HSMs, as well as view and manage existing HSMs within their environment. Multiple HSMs from any manufacturer can be linked to KeyBRIDGE as well as logical endpoint applications needing to utilize keys or materials for use on specific HSMs.

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Beneficial and Effective Audit Logging

The platform logs every user action regardless of status (pass or fail). Each record in the system audit log will contain the following information:

- A unique audit record ID
- Date and timestamp
- User IDs
- Function performed
- Relationship
- POS Terminal Details
- Key Serial Number – KSI & DID portion only (injection only)
- Status: Pass or Failure
- Additional discretionary data (function specific)

PCI Compliant Architecture

The KeyBRIDGE eKMS protects all keys by utilizing a 256 Bit advanced encryption standard (AES) System Master Key (SMK). The AES SMK strength allows for the compliant interoperability of nearly any system that needs to connect and establish key encryption keys in order to transport keys among diverse systems. The KeyBRIDGE eKMS leverages a graphical user interface, built in compliance-based controls with support for the interoperable TR-31 key blocks as well as other third party proprietary Key Block formats for transport and internal storage.

Additional features

- 256-Bit AES encryption
- Backup / restore capabilities
- Full audit visibility
- Enforcement of dual control, split knowledge
- Role-based access
- Automated Key format interoperability
- Stores keys as TR-31 bundle
- User-definable key attributes
- Certificate management
- Connection profiles with TLS 1.2 mutual authentication

Support Going Above and Beyond

GEOBRIDGE customers are our most vital asset, and we believe support begins from initial KeyBRIDGE implementation and continues with ongoing maintenance of the appliance. The GEOBRIDGE team provides white glove support while working with customers around the globe to provide exceptional technical support for all of our products and services.

KeyBRIDGE eKMS appliance management

The appliance connects to the HSMs using TCP/IP. There can be multiple HSMs of each type Managers: these are trusted individuals whose role is to manage the system; these responsibilities include:

- System installation and configuration
- System Master Key (SMK) management
- User management
- HSM management
- Key management

Cryptographic Key Management

KeyBRIDGE eKMS is the most comprehensive centralized key management system in the market.
The single greatest challenge to centralized key management is the utilization of proprietary formats, proprietary naming conventions, and unique interfaces that are utilized by each individual HSM or application. This causes enormous confusion and necessitates duplicate key ceremonies on multiple systems that possess either limited audit functionality or none at all.

KeyBRIDGE eKMS is the only solution with the ability to align the proprietary key management techniques used throughout the cryptographic industry.
Instead of waiting for an interoperable key management technique to be approved and finally implemented on all the systems that must be managed, GEOBRIDGE has worked cooperatively with each individual major HSM provider and adapted their proprietary techniques in order to create a truly centralized key management system with seamless integration for any third party device. Enterprises can use KeyBRIDGE eKMS as the cryptographic key management anchor. Key imports, exports and translations can be centrally managed and tracked for use with any third-party end point.

Automated backups to USB, SFTP or network file share locations, ensure that the inventory and history of each key is protected and preserved.
Restore processes can be completed in under five minutes. KeyBRIDGE eKMS provides support for secure key component and cryptogram handling. Any number of secure mailer formats can be utilized for print capabilities and tracking.

GEOBRIDGE has maintained support for dozens of technology manufacturers that realize the value of a centralized system because it allows them to maintain their own proprietary key handling techniques thereby eliminating the need for new development and increased costs.
GEOBRIDGE is continuing to add support for new technology manufacturers on a continual basis as a result of customer demand. So, if additional end-points require integration the GEOBRIDGE eKMS can easily accommodate additional key management requirements. KeyBRIDGE supports both Push and Pull technologies acting as both client and server in a cloud-based infrastructure.

Remote access to audit logs	Remote Access to Key Meta Data Details	Key Requests	Key Storage
Key Translation	Random Number Generation	Multi-Key Import and Export	Translation between Formats (Variants & Key Bundling)
Granular filtered System Queries	Custom Options		

Technical Specifications

KeyBRIDGE 4100

Physical Dimensions

- **Height:**
  1.75 inches (4.4 cm)
- **Width:**
  17.2 inches (43.8 cm)
- **Depth:**
  21.3 inches (54.2 cm)
- **Weight:**
  25 pounds (11.3 kg)
- **Controls:**
  Power on/off switch,
  unit ID switch

Connectivity

- **Communications Ethernet:**
  TCP/IP, TLS 1.2 (only)
- **LAN Connection:**
  10/100/1000BASE-T
  (RJ45) auto-sensing

Electrical

- **Rated input voltage:**
  100 to 240 VAC
- **Rated input current:**
  5 A at 100 VAC
  3 A at 240 VAC
- **Rated input frequency:**
  50 Hz to 60 Hz
- **Rated input power:**
  300 W

Operating Environment

- **Temperature:**
  10°C to 35°C
  (50°F to 95°F)
- **Relative humidity:**
  5% to 80%
  Non-condensing

Certification/Compliance

- **Safety / Emissions:**
  UL62368-1 +
  CB62368-1/60950-1,
  CE/FCC,
  RCM #1 Australia

GEOBRIDGE
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In 1997, GEOBRIDGE emerged as one of the first information security solutions providers to support cryptography and payment applications for payment processors, financial institutions and retail organizations. Guided by the credo that information security solutions should support, rather than dictate, business requirements, GEOBRIDGE continues to find new mechanisms that leverage our customers' security measures to better meet their business needs. Today, GEOBRIDGE is a leading information security solutions and compliance provider that supports a diverse global client base in retail, financial services, manufacturing and key injection facilities.

GEOBRIDGE brings together a team of highly skilled and highly experienced Network Security Architects, Application Developers, Cryptographic Key Management Experts and Project Management professionals who are fully invested in satisfying the security and compliance requirements of our customers.

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