



# PRODUCT BRIEF SafeNet ProtectDB Column-level Database Encryption

Your organization's most valuable data assets reside in databases and it is imperative to protect them from the devastating and lasting impact of a breach. With internal and external threats growing, encryption provides a critical last line of defense by applying protection directly to sensitive information residing in databases across today's distributed enterprise.

# Secure Sensitive Column-level Data-at-Rest

SafeNet ProtectDB provides transparent column-level encryption of structured, sensitive data residing in databases, such as credit card, social security, account and national ID numbers, passwords, and email addresses.

The solution enables large amounts of sensitive data to be moved in and out of data stores by efficiently encrypting and decrypting specific fields in databases. No changes are required to applications, and SafeNet ProtectDB can scale to support multiple data centers in on-premises, virtual, and public cloud environments. The solution is deployed with SafeNet KeySecure, a FIPS 140-2 up to Level 3 validated enterprise key manager, that provides centralized key and policy management.

## SafeNet ProtectDB Highlights

#### Transparent and Efficient Column-level Encryption

- > Transparently encrypt sensitive column-level database data
- Apply granular access controls to ensure only authorized users or applications can view protected data
- Prevent database administrators (DBAs) from impersonating other users to access sensitive data

#### **Support Cloud Initiatives**

- > Deploy across on-premises, virtual, and public cloud environments
- > Set up encryption in the cloud more quickly with Chef recipes for easy automation

#### **Streamline Ongoing Management Activities**

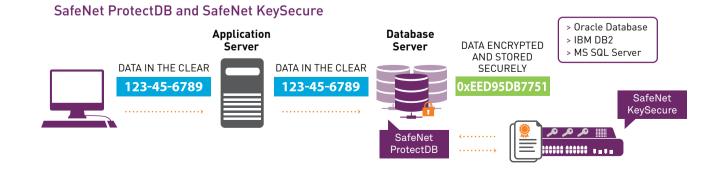
- > Built-in, seamless key rotation and data re-keying
- Reduce administration and overhead costs with centralized policy and key management

#### **Deliver High Performance**

- Perform cryptographic operations locally or offload to SafeNet KeySecure to leverage external processing power
- Built-in connection pooling, health checking, and multitiered load balancing

#### Achieve Compliance

- Meet compliance mandates, such as PCI DSS and HIPAA, that require encryption of data and separation of duties
- Comprehensive auditing and logging capabilities to track access to encrypted data and keys



# How SafeNet ProtectDB Benefits Your Business

With SafeNet ProtectDB, your organization can enjoy a number of significant benefits:

## **Persistent Protection**

With SafeNet ProtectDB and SafeNet KeySecure, you can ensure encrypted data remains secure throughout its lifecycle, while enabling authorized users and processes to access information when needed. Lifecycle protection increases overall security and facilitates collaboration by eliminating points of vulnerability outside the database.

#### **Efficient Encryption**

With SafeNet ProtectDB and SafeNet KeySecure, large amounts of sensitive data can be moved in and out of data stores rapidly by encrypting or decrypting specific fields in bulk within files that can contain millions of records. By focusing on select fields, you can encrypt and decrypt data efficiently, in a fraction of the time that it might take for the entire file. Format preserving encryption functionality lets customers continue to run analytics on their data even though it is encrypted. SafeNet KeySecure also can be used to encrypt the entire binary file when you do not need field-level granularity.

#### Secure Collaboration

A security solution is effective only if it enables you to use information to achieve business goals. SafeNet ProtectDB combines flexible encryption options with granular access policy capabilities so you can avoid the all-or-nothing approach of other encryption solutions. With SafeNet ProtectDB, you can encrypt data at the column-level in databases, or during batch-driven data transformation and transaction processes. The solution also lets administrators define access by variables such as: role, user, time of day, and other variables.

#### **Ensure Compliance**

SafeNet ProtectDB features comprehensive logging and auditing capabilities to enable you to track access to encrypted data and keys. As a result, you can effectively address your internal policies and all relevant regulatory mandates, including encrypting personally identifiable information (PII) and other sensitive, confidential data to comply with privacy mandates such as, Payment Card Industry Data Security Standard (PCI DSS) and the Health Insurance Portability and Accountability Act (HIPAA).

## **Technical Specifications**

#### Supported Databases

- > Oracle
- > Microsoft SQL Server
- > IBM DB2

## Supported Platforms

- > Microsoft Windows
- > Linux
- > Solaris
- > HP-UX
- > AIX
- Encryption Algorithms
- > AES 128, 192, 256, 512
- > 3DES 168
- **Cloud and Virtual Infrastructures**
- > Works with all major cloud platforms, including AWS, Microsoft Azure, and VMware

## Leverage the Cloud Securely

SafeNet ProtectDB with SafeNet KeySecure works in any cloud or virtualized environment to keep data secure so organizations can confidently pursue their cloud strategy. Even though data is in the cloud, customers remain in full control of both their data and their encryption keys.

## About Gemalto's SafeNet Identity and Data Protection Solutions

Through its acquisition of SafeNet, Gemalto offers one of the most complete portfolios of enterprise security solutions in the world, enabling its customers to enjoy industry-leading protection of data, digital identities, payments and transactions – from the edge to the core. Gemalto's newly expanded portfolio of SafeNet Identity and Data Protection solutions enables enterprises across many verticals, including major financial institutions and governments, to take a data-centric approach to security by utilizing innovative encryption methods, best-in-class crypto management techniques, and strong authentication and identity management solutions to protect what matters, where it matters. Through these solutions, Gemalto helps organizations achieve compliance with stringent data privacy regulations and ensure that sensitive corporate assets, customer information, and digital transactions are safe from exposure and manipulation in order to protect customer trust in an increasingly digital world.

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