Organizations are generating more data than ever before. Whether it is IoT sensors, retail data or sensitive consumer banking information, enterprises are collecting and sifting through large quantities of data to generate the next big insight that will drive profits. This data is valuable, and as such, it requires security to keep it safe and its holder compliant with industry regulations and best practice. Fortunately, Teradata and Gemalto have teamed up to solve the challenges that these organizations face on a daily basis.

Teradata Database
Teradata is a fully scalable relational database management system with a parallel architecture used to manage large warehouses of data. Its versatility lets it support hundreds of installations ranging from several terabytes of data to warehouses with petabytes of stored information. Teradata Database can be deployed on-premises in a data center or virtually in the cloud.

SafeNet ProtectDB
SafeNet ProtectDB’s column-level encryption secures structured, sensitive data residing in databases, such as credit card and social security numbers, passwords, email addresses, and more. Our column-level approach lets large amounts of sensitive data move in and out of data stores by efficiently encrypting and decrypting specific fields using user defined functions (UDFs). And, it operates at scale with the ability to support multiple data centers in on-premises, virtual, and public cloud environments. SafeNet ProtectDB deploys with SafeNet KeySecure, a FIPS 140-2 up to Level 3 validated enterprise key manager for centralized key and policy management.

Benefits

- **Transparent and Efficient Column-level Encryption**
  - Transparently encrypt sensitive column-level database data
  - Apply granular access controls to ensure only authorized users or applications view protected data
  - Prevent database administrators (DBAs) from impersonating other users to access sensitive data

- **Achieve Compliance**
  - Meet compliance mandates, such as PCI DSS and HIPAA, that require encryption of data and separation of duties

- **Streamline On-going Management Activities**
  - Built-in, seamless key rotation and data re-keying
  - Reduce administration and overhead costs with centralized policy and key management

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

How SafeNet ProtectDB and Teradata Benefit Your Business

**Persistent Data Protection**

With SafeNet ProtectDB and SafeNet KeySecure, you can ensure encrypted data remains secure throughout its lifecycle, wherever it is copied or transferred across Teradata Database nodes. Though secured, authorized users and processes still have appropriate levels of access to the information they need for their roles when they need it. Full lifecycle protection improves overall security and facilitates collaboration by eliminating points of vulnerability outside the database.

Organizations can now fully take advantage of the Big Data era without having to worry about the underlying security concerns of aggregating so much sensitive information. Gemalto’s SafeNet ProtectDB encrypts data at the column-level to expand Teradata Database’s possibilities.
Efficient Encryption

SafeNet ProtectDB with SafeNet KeySecure allows organizations to apply security while maintaining high levels of performance. Large amounts of sensitive data can be moved in and out of data stores rapidly by encrypting or decrypting only specific fields in bulk within files that contain, potentially, millions of records. Encrypting and decrypting in a focused manner on select fields takes a fraction of the time that it would for the entire file.

Secure Collaboration

SafeNet ProtectDB combines flexible encryption options with granular access policy capabilities so you can avoid the all-or-nothing approach of other encryption solutions. Administrators can use SafeNet ProtectDB to define access by variables such as: role, user, time of day, and other variables. Multiple business units and administrators can take advantage of Teradata Database’s functionality, all without necessarily having access to each other’s data in cleartext.

Ensure Compliance

Teradata Database’s ability to store and categorize large quantities of information – much of it sensitive customer data - make it a central compliance concern for customers. SafeNet ProtectDB tracks access to encrypted data and keys in comprehensive logs to ease an organization’s ability to demonstrate their compliance. As a result, organizations can effectively address their internal policies and relevant regulatory mandates such as, Payment Card Industry Data Security Standard (PCI DSS) and the Health Insurance Portability and Accountability Act (HIPAA), and the General Data Protection Regulation (GDPR).

About Gemalto’s SafeNet Identity and Data Protection Solutions

Gemalto’s portfolio of Identity and Data Protection solutions 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 SafeNet Identity and Data Protection solutions enable 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.

About Teradata

Teradata empowers companies to achieve high-impact business outcomes through analytics. With a powerful combination of industry expertise and leading hybrid cloud technologies for data warehousing and big data analytics, Teradata unleashes the potential of great companies. Partnering with top companies around the world, Teradata helps improve customer experience, mitigate risk, drive product innovation, achieve operational excellence, transform finance, and optimize assets. Teradata is recognized by media and industry analysts as a future-focused company for its technological excellence, sustainability, ethics, and business value. Visit teradata.com.