As the volume and value of your organization’s data continues to grow, you can no longer rely solely on perimeter-based security to protect it from the lasting impact of a breach. Tokenization replaces sensitive data with a unique token that is stored, processed, or transmitted in place of the clear data. A popular choice with the payment card industry to secure primary account numbers (PAN), tokenization can be used to protect other types of high-value data.

### Tokenize and Secure Sensitive Data

SafeNet Tokenization uses Format Preserving Tokenization (FPT) to preserve sensitive data’s length and format in order to minimize the need to modify applications, databases, and legacy systems that will store, process, or transmit the associated token. The solution offers unlimited data type support, including numeric data with spaces or dashes (e.g. credit card numbers, social security numbers), alphanumerical data (e.g. passport, account, email addresses, dates), and original data retrieval formats, such as full clear value or masked. Data can be tokenized in a variety of formats, such as last four, first six, custom formats, and regular expression.

SafeNet Tokenization is easily deployed across on-premises, virtual, and public cloud environments, and works with SafeNet KeySecure, a FIPS 140-2 up to Level 3 validated enterprise key manager that provides centralized key and policy management. The solution protects products such as SAP, and is compliant with PCI Tokenization Guidelines and VISA Tokenization Best Practices. It is ideal for organizations looking to significantly reduce regulatory scope, facilitate the annual audit process, and reduce total cost of ownership.

Vaultless tokenization functionality gives customers an option to deploy easily across multiple sites (e.g. data centers, public and private clouds). Compared to the vaulted approach, vaultless tokenization can offer higher performance and scalability that makes it well suited to secure big data solutions such as Hadoop distributions.

### SafeNet Tokenization Highlights

- **Transparent and Secure Tokenization**
  - Replace sensitive data with a token that can be securely stored, processed, and transmitted
  - Apply granular access controls to ensure only authorized users or applications can view tokenized data
  - Centralize key management across multiple sites with an industry-leading enterprise key manager
  - Leverage bulk tokenization utilities and batch APIs

- **Unlimited Data Type and Broad Token Format Support**
  - Tokenize primary account numbers (PAN), as well as other data types (PCI, PII, PHI, etc.) in any environment, including payment systems and big data implementations
  - Support a wide variety of token formats, including regular expressions and customized formats

- **Support Cloud Initiatives**
  - Deploy in on-premises, virtual, and public cloud environments
  - Set up tokenization in the cloud more quickly with readily available Chef recipes for easy automation

- **Ensure Easy Deployment and Management**
  - No changes required to applications, databases, and legacy systems with Format Preserving Tokenization (FPT)
  - Web services (SOAP and REST APIs) provide fast, cost-effective deployment
  - Built-in, automated key rotation and data re-keying

- **Achieve Compliance**
  - Reduce audit scope and related operational costs
  - Track access to tokens and protected data with comprehensive auditing and logging capabilities
Technical Specifications

Format Preserving Tokenization
- Complies with PCI Tokenization Guidelines for token identification via token masking and Luhn algorithm pass/fail checks
- Supports multiple tokens vaults
- Highly scalable - can generate and retrieve millions of tokens per day for best performance

Supported Token Vault Databases
- Microsoft SQL Server
- Oracle
- MySQL
- Cassandra

Note: all tokenization forms are supported on all databases as long as the vault itself is on Microsoft SQL Server, Oracle, MySQL or Cassandra

Supported APIs
- Web services: SOAP, REST/JSON
- Java
- .NET

Enhanced event logging and monitoring functionality
- Complies with PCI Tokenization manager event monitoring specifications
- Supports SNMP for online monitoring and alerting

Token Formats
- Random or Sequential token generation
- Masked: Last four, First six, First two, etc.
- Fixed length and width masking
- Customer defined custom formats
- Cryptographic hash functions, including SHA2-256, SHA2-284, SHA2-512, and Base16/Base64
- Regular expressions (Java style)

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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