

Global Investment Bank, Western Europe

Solving Data Residency and Privacy Compliance Challenges

A Data Security Platform to Maximize the Value of Information

Voltage SecureData™ Enterprise is the backbone of the global cloud, enterprise and mobile data security strategy at a western European investment bank with global presence. At the highest levels the bank recognizes their data is a strategic asset and their goal is to maximize the value of their information. With cloud adoption growing across the organization and data assets touching thousands of business processes, applications, complex enterprise data services and people around the globe, the business needed a data security platform that could provide an enterprise standard for data protection to ensure consistency and control, and to maximize data use without risk. The data-centric security strategy the bank adopted with Voltage SecureData Enterprise, now enables the company to offer the best business services to any customer anywhere in the world, and to serve a demanding and diverse client base that includes individuals, corporations, institutions and governments.

Key Requirements Driving the Project

As a top-ranked global investment bank with operations across 50 countries, and with tens of thousands of databases and thousands of applications, the bank needed the ability to scale to petabyte levels. This scalability requirement immediately ruled out most traditional data security options.

Another key consideration for the bank is that their data processes span multiple privacy jurisdictions, each with their own complex array of regulatory controls. Critically, the organization's business agility and consumption of data is constrained and complicated by their home country's data protection and private banking compliance regulations, disparate US and EU data residency laws, and a myriad of global privacy mandates, disclosure concerns and cross-border data rules.

Economics are driving the move to cloud services, but – with confidentiality concerns top of mind – the bank realized they would need to manage the data residency challenges to using the cloud, either by building data centers in each country or by taking a new and different approach – to secure data at the data element level through logical data zones. The bank turned to Voltage Security to meet the complex challenges of scalability, global compliance and cloud adoption, and embraced the new, standards-based data-centric approach to data security based on the combination of Voltage Format-Preserving Encryption™ (FPE) and Secure Stateless Tokenization™ (SST) technologies fundamental to Voltage SecureData Enterprise.

With the project's origins in data de-identification, the bank's requirements quickly expanded to encompass full production data protection, and to enable cloud adoption and emerging mobile applications. The bank quickly realized that a single, unified platform approach, and the ability to use FPE to create layers of data access at the field level, could deliver universal data protection to a wide range of environments, from open systems to mainframe, and to new, cost-saving cloud initiatives. The result is that Voltage SecureData Enterprise is now the gold standard for data security at this global investment bank, company-wide.

Voltage SecureData Enterprise provides the bank:

The global corporate standard for data security

- Data protection in new and existing enterprise and cloud applications, big data analytics, and legacy modernization.
- Data de-identification for removing live data from non-production systems.
- A consolidated and centrally managed service, deliverable from 15 global data centers, consumable by lines of business on demand, but with local control – for any application, any data, in the enterprise or cloud, from mainframe to mobile.
- Data protection options suited to different regulatory data protection and separation use cases – with Voltage Format-Preserving Encryption, Secure Stateless Tokenization and Identity-Based Encryption™ (IBE) technologies supporting the protection of structured and unstructured data at any scale.

Global Stateless Key Management

- Voltage's central, Stateless Key Management – delivered with SecureData Enterprise, is ideally suited to permit mapping of key servers to logical data zones or jurisdictions without requiring cross-border key synchronization and with direct use of existing global identity and authorization infrastructure.

Regulatory data element control for complex data residency requirements

- Logical data jurisdictions with layered access to sensitive data at the element level, gives the bank unique data-level control no matter where the data goes. Format-Preserving Encryption, with Stateless Key Management, uniquely enables access to portions of data fields, such as portions of a bank account number, through layers of encryption with keys tied to trust zones. For example, a portion field may be encrypted with a global zone key, and then again with a local zone key. Decryption under the local jurisdiction reveals only a portion of the original data, then subsequent decryption by the global zone key will reveal the full field. This layering permits granular zone-based access critical for data residency compliance. Keys are generated on-the-fly and tied to identity and LDAP groups and zones, enabling fine-grained role-based access to data.

A Cloud-enabling data security backbone

- With economics driving public cloud adoption, consistent data protection for cloud applications is a critical requirement for the bank. Voltage SecureData Enterprise provides the necessary 'permeable' cloud barrier capability at a data level to integrate with cloud proxy applications for data security. Data can be "de-valued" when moving to the cloud, and "enriched" on return – yet enabling the cloud application to still execute using FPE-protected data.

Simplicity for developers and data scientists

- Application development teams are provided with simple, efficient services and APIs without the need for security and cryptography expertise, even natively on IBM mainframe, Teradata, open systems and cloud infrastructure – thus reducing costs, simplifying deployment, and shortening time to success.
- Voltage SecureData Enterprise provides a single standard and unified approach to both protect and de-identify data to ensure maximum processing and analytic data value – at scale – across vast customer data sets without requiring complex mapping tables which violate data residency rules. For example, in the Asia Pacific region, Format-Preserving Encryption is uniquely able to solve a critical data residency challenge impossible to solve with any other approach – enabling a stalled project, involving 40 applications consuming highly sensitive structured account numbers, to succeed, without compliance exceptions.

For this leading global investment bank, Voltage Security's data-centric security technology for the global enterprise, enables data to be liberated from constraints imposed by regulatory and risk barriers, to the maximum extent possible, through granular control over data and who can access it – any data, anywhere it goes, independent of platform.

ABOUT VOLTAGE SECURITY

Voltage Security®, Inc. is the leading data protection provider, delivering secure, scalable, and proven data-centric encryption and key management solutions, enabling our customers to effectively combat new and emerging security threats. Leveraging breakthrough encryption technologies, our powerful data protection solutions allow any company to seamlessly secure all types of sensitive corporate and customer information, wherever it resides, while efficiently meeting regulatory compliance and privacy requirements.

For more information, please visit www.voltage.com.