



CASE STUDY

Securely Encrypting Health Records and Personally Identifiable Information

Background

Sofaxis is the first French insurance broker operating in the field of hospital and local government entities. Sofaxis works with leading Insurance companies such as CNP Assurances, Groupama, Allianz, etc. Sofaxis processed more than 10 million health records -containing personally identifiable information (first name, last name, address, etc.), patient records, health data like sick leave, maternity leave and any other risk related to occupational injury or disease within the local government entities – making protecting that data a top Board-level management and organizational priority.

The security department was given the remit to find a cost effective, secure solution that would both increase the level of security of the sensitive data being processed through the company's internal databases, but also to comply with French data protection laws and regulations for protecting this data.

Business Need and Challenges

In close collaboration with the legal department, the human resources department and different other business services, the security team identified the best solution to:

- Increase the security level of the data processed in the internal databases of the organization
- Be in compliance with existing regulations:
 - Commission Nationale de l'Informatique et des Libertés (CNIL) - an independent French administrative authority whose mission is to ensure that the data

privacy law is applied to the collection, storage, and use of personal data

- Basel II - the second of the Basel Accords, defines an international standard that banking regulators can use when creating regulations about how much capital banks need to put aside to guard against the types of financial and operational risks banks face
- Convention Belorgey - a French agreement that helps facilitate access to insurance for people with an increased health risk

➤ Constitute the most cost efficient cost effective solution
Once an inventory of the existing data was made, the security team was able to classify the existing information according to different criteria: data criticality, accessibility, and the risk related to data loss, and realized that they needed an encryption solution to be able to secure this critical data.

An encryption solution will also create a competitive advantage for Sofaxis, when participating in tenders that have security requirements.

The need was to encrypt data that resides on the internal Microsoft SQL Server databases in order to prevent unauthorized or fraudulent access to sensitive data and to avoid data leakage and theft. In addition, the solution had to include centralized key management via an LDAP directory or Active Directory and to enable encryption without affecting existing infrastructure and applications.

The Solution

Combined with Gemalto SafeNet KeySecure for security policy and key management, ProtectDB (part of the Crypto Operations Upgrade Pack) enables Sofaxis to encrypt all the data stored in the databases so that information is only visible by authorized users. The encryption reinforces the security which, until then, was only based on access control via an application.

The distinction between exclusive rights to access data by another way than through the applications, and the exclusive rights to access the encryption and de-encryption keys enabled Sofaxis to strengthen the security of data. The company did not have any existing encryption solution and the chosen solution had to meet certain requirements and needs. KeySecure presented a solution that responded to Sofaxis' three main requirements:

- > To easily decrypt the data – the decryption process has to ensure no data loss will occur.
- > To have the ability to encrypt data in order to comply with legal and regulatory requirements, while being totally transparent to users.
- > To keep the project under a low and defined budget that assures no additional in-house development costs are required.

The preliminary work before beginning an encryption project is highly important and has an immense influence on the speed of the implementation. The definition and implementation of the project were closely coordinated with the HR department, who is responsible for users' profiles management. They had to be taken into account when defining the information access rights management directories, as well as the key management and patient information protection.

Implementation of KeySecure with ProtectDB solution was managed using a phased approach: It started with the pre-production server, then the databases, the data warehouse, and finally the production server.

ProtectDB's ability to encrypt and decrypt data, without altering applications and databases, the encryption transparency and the promptness of implementation, were the key factors in selecting Gemalto.

"Following a long search for the right encryption solution for us, we chose Gemalto KeySecure with ProtectDB as it presented a solution that easily but securely encrypts and decrypts sensitive data, minimizing the risk of data loss. It also assured we comply with French data protection laws and regulation, something that will enable us to rapidly generate new business."

Franck Moussé, CSO in charge of technological innovation

Benefits

- > Maintain Secure Ownership of Data throughout its lifecycle, wherever it resides.
- > Increase operational efficiency and Productivity by encrypting and decrypting information transparently, without disrupting business operations, IT performance, or end-user experience.

Solution Benefits

By deploying KeySecure with ProtectDB, Sofaxis has realized significant benefits including:

- > **Improved Security.** Encrypting and decrypting all the data stored in the databases so that information is only visible by authorized users. This strengthens security which, until then, was only based on access control via an application.
- > **Compliance with Regulations.** French data protection laws and regulations requirements are now met. That facilitates work with partners and participation in tenders.
- > **Simple Administration.** Centralized management of cryptographic keys and policies simplifies security administration, ensures regulatory compliance, and maximizes overall security.

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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