



CASE STUDY

Gemalto Encrypts E-Commerce Contracts Platform in AWS

DealFlo is the world's first multi-tenant platform that automates complex agreements end-to-end, and is hosted in the Amazon Web Services cloud. To ensure clients' privacy and achieve compliance, the company relies on Gemalto for data security and key management in the cloud.

The Organization

DealFlo automates financial agreements for companies such as Ford, BMW, Barclays, John Lewis and Prudential. It has built-in technology that verifies a customer's identity, tracks what the customer saw and did with a financial agreement, automates signatures and seals the contract with a tamper-proof digital signature. The number of customers grew quickly, as did the number of platform requests, expanding DealFlo's reach to all electronic agreements—mostly for regulated industries, such as financial services, mortgage, and insurance agreements.

The Business Need

DealFlo had homegrown encryption solutions for various applications, but with its exponential growth, the company moved its solution to AWS, which meant DealFlo needed a robust security solution that could protect its customers' sensitive assets in the public cloud. Many of its clients are large, security-conscious, highly-regulated organizations, especially in light of increasingly prevalent data breaches. DealFlo needed to secure the data inside AWS, but also shield it from cloud administrators, and maintain control of the keys to the data. It was important to DealFlo how the data was encrypted and who had access to and control of the keys. The company also wanted to invest in an industry-recognized name.

Challenge

DealFlo decided to host its electronic contracts service in the Amazon Web Services (AWS) cloud, but needed robust encryption and key management that work with the AWS platform without affecting performance.

Solution

With SafeNet ProtectV and SafeNet Virtual KeySecure from Gemalto, available on AWS Marketplace, DealFlo was able to test and immediately implement proven security solutions from a trusted global brand.

Benefit

Gemalto's suite of data security solutions enable DealFlo to achieve its security goals today, and are able to grow with DealFlo into the future. DealFlo can increase the number of encrypted workloads hosted on AWS, and is also able to expand its deployment options and add security solutions for databases, applications, and hardware-based key vaulting.

"We needed our solution to provide assurance and control over cryptography and encryption infrastructure, explained Alexei Savchenko, CTO of Dealflo. "We also needed the flexibility to secure various types of data wherever we needed it—in databases, database backups, exporting data, or in AWS—and all with centralized control."

The Solution

Dealflo evaluated various vendors and carefully weighed their options for encryption and key management solutions for the AWS cloud. Savchenko had worked with Gemalto's SafeNet Network Hardware Security Modules (HSMs) at a previous company and was comfortable trusting Gemalto with this project. Dealflo chose to deploy SafeNet ProtectV for encryption of data in the AWS cloud and SafeNet Virtual KeySecure for secure key management.

SafeNet ProtectV is a high-availability encryption solution for securing sensitive and highly-regulated data that resides in AWS EC2 instances and AWS EBS volumes. By encrypting entire virtual machine instances and attached storage volumes, SafeNet ProtectV allows organizations to separate security administration duties, enforce granular controls, and establish clear accountability with audit trails and detailed compliance reporting.

SafeNet KeySecure is the industry's leading centralized encryption key management platform, and is available as a hardware appliance or hardened virtual security appliance. By utilizing SafeNet KeySecure, organizations benefit from its flexible options for secure and centralized key management—deployed in physical, virtualized infrastructure, and public cloud environments. As with the hardware appliance, SafeNet Virtual KeySecure is the industry leader with the largest number of key management integrations, including SafeNet ProtectV, SafeNet ProtectFile, SafeNet ProtectApp, SafeNet ProtectDB, SafeNet Tokenization, KMIP-compliant and third-party encryption solutions.

Dealflo purchased SafeNet ProtectV and SafeNet Virtual KeySecure through the [AWS Marketplace](#), which offers instantaneous integration with organizations' AWS cloud, 1-Click purchasing, and the ability to launch pre-configured security solutions in minutes. The Gemalto solutions on AWS Marketplace are available in a variety of node packages, so as Dealflo grows, it can increase the number of nodes for each product.

After seeing the potential of SafeNet Virtual KeySecure, Dealflo decided to extend the solution to centrally manage the keys for all of its encryption products – including homegrown applications that are not hosted in AWS. Managing dispersed symmetric and asymmetric keys, certificates, and application credentials from a single, central location saves money, finds efficiencies, and improves auditability by eliminating encryption silos across the organization.

"Gemalto provides a data protection model that's very easy to explain for prospects, and one that customers know they can rely on to ensure data privacy and compliance in the cloud. It's a respected name, which provides us credibility with our customers. Long term, Gemalto has flexible solutions we can add that will integrate easily into our existing security infrastructure with no additional headaches."

- Alexi Savchenko, CTO at Dealflo

The Benefits

Dealflo's business has benefited greatly from the move to the AWS cloud, along with the robust security and trusted name Gemalto brings to the organization. Some of those benefits include:

High Availability. Constant uptime and timely processing of contracts is essential for Dealflo's customers, so the security solution Dealflo implemented could not negatively affect the user experience. "Performance capabilities testing played a huge role in our choice," said Savchenko. "Scalability and availability is a huge factor, and is demanded by our customers. We had several rounds of testing and saw almost no impact on performance. We tested a very high volume—3 to 5 times our actual needs—to make sure our infrastructure could sustain the volume of transactions needed by our customers."

Compliance. Because of the types of data processed in clients' electronic agreements, Dealflo needed to prove that data at rest was encrypted and key management was under their control. PCI certification and ISO 227 was also required, which they were able to achieve with Gemalto solutions.

Future Readiness. Since implementing Gemalto encryption and key management solutions, the company has grown even more, and its need for secure solutions has grown along with it. Fortunately, Gemalto offers a suite of solutions to meet Dealflo's needs. "We were able to expand the number of nodes in the AWS Marketplace options, and began using SafeNet Virtual KeySecure with other corporate applications so we had central control of all our keys," explained Savchenko. "For example, we provide document signing for very secure systems, which we were able to manage with SafeNet Virtual KeySecure."

The company has also begun using solutions that are a part of the SafeNet KeySecure data protection portfolio, including SafeNet ProtectDB for database encryption and SafeNet ProtectApp, which integrates into application components for client-side encryption. They are planning on adding AWS CloudHSM in the next few years for even more robust hardware storage of encryption keys.

"Gemalto has a great reputation, which provides us credibility with our customers," said Savchenko. "Long term, Gemalto has a solution we can add that will integrate easily into our existing security infrastructure with no additional headaches."

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