ACTIVE CYPHER™

Financial Industry Use Case

By implementing and enforcing an appropriate security policy at your financial firm, you can help reduce risk and avoid a costly – or even devastating – exposure of your client's confidential information.

The Financial Industry Can Use Active Cypher to Secure Data in the Cloud

Financial Industry Use Case

As we know the financial industry is among the most regulated in the world. There are strong data security requirements for banking and financial industries due to the sensitive and private data that they deal with. While GLBA/FFIEC are specific to these industries, compliance regulations such as PCI DSS, SOX, and state privacy laws can also apply. One thing that they all have in common though, is that encryption, along with proper key management, can mean the difference between a public breach notification and having a safe harbor.
The Gramm-Leach-Bliley Act (GLBA) specifically requires that institutions doing business in the US establish appropriate standards for protecting the security and confidentiality of customers' NPI. The objectives are to:

- Ensure world-class data privacy, data protection and cybersecurity for customers, partners and others across a broad ecosystem, including the support of evolving industry standards such as Sheltered Harbor.
- Protect against any anticipated threats or hazards to the security or integrity of such records
- Protect against unauthorized access to information that could result in substantial harm or inconvenience to any customer

"Financial institutions should employ encryption to mitigate the risk of disclosure or alteration of sensitive information in storage and transit."

Between FFIEC and GLBA, banks and financial institutions should encrypt:
- Any sensitive information an individual gives you to get a financial product or service (such as name, address, income, Social Security number, or other information on an application)
- Any information you get about an individual from a transaction involving your financial products or services (for example, the fact that an individual is your customer, account numbers, payment history, loan or deposit balances, and credit or debit card purchases)
- Any information you get about an individual in connection with providing a financial product or service (for example, information from court records or from a consumer report)
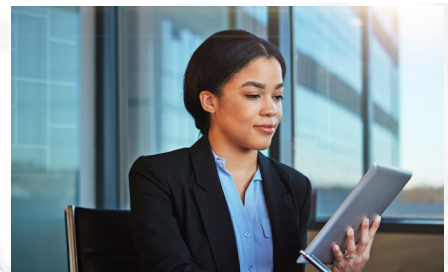
Financial services are currently amid a major transformation, as CIOs, CSO's with their teams prepare to enter the next major phase of digital transformation. The challenge is imposing: In a competitive environment of rising costs, action and response is imperative. Financial institutions must modernize their technology function to support digitization of both the front and back ends of their businesses.

Active Cypher is a modern data protection solution specializing in protecting & securing data across its lifecycle with far less complexity and cost. Our simple and effective approach redefines data loss prevention by enabling data to be self-protected everywhere even when other security measures fail.

Instead of believing everything behind the corporate firewall is safe, the Active Cypher data loss prevention security model assumes breach and verifies each request as though it originates from an uncontrolled network. Regardless of where the request originates or what resource it accesses, based on the Zero Trust teachings of "never trust, always verify."

Encryption Key Management

A specific requirement is that encryption and decryption operations must be carried out locally. Not by remote service, because both keys and data must remain in the power of the data owner if any privacy is to be achieved (ENISA 2014). To achieve this in practice, firms are likely to consider increasing the use of pseudonymization (practice: encryption) techniques. (Slaughter and May 2016).

Encryption is only as secure as your encryption keys.

Active Cypher protects the symmetric keys with Key-Encryption-Key (KEK) asymmetric, PKI-based distribution and protection mechanism that is tied to the X.509 RSA 2048, permissioned device network topology.

All Key Creation, Wrapping, Distribution, and Session Life is automated and running within the Azure Tenant of the customer. Attribute Based Access Control is tied to key usage with repeated Identity and authorization verifications performed dynamically; based on device, user identity, and the Microsoft Graph Security API, in an information exchange process that is not dependent on inputs from the user, or external application.

This ensures safe storage and access to decryption keys, as the symmetric keys, are encrypted with AES-256 and wrapped in RSA-2048 PKI, X.509 Machine Certificate exchange, and can only be "unwrapped" on a unique device, for unique user identity, given acceptable threat determination from the Attribute Based Access Control Policy Engine.

All key access and management are governed within your Azure Tenant. No third party has access to your keys, not Microsoft, not even us. During deployment, Active Cypher creates a secured Private Cloud for each client. Once the installation completes, we have no other access or connection to the client's cloud. The owner of the Azure subscription is the only entity to hold the keys.

Active Cypher delivers value right from the start

- **Operational Integrity:** Data is protected at rest, in transit, in process and in backups. Always available for viewing, editing, sharing, and printing. Safely share data and enable the business to remotely revoke access anywhere, anytime.
- **Always Encrypted 24/7:** Encryption is used to block unlawful access to the information. It also can protect information sent through the internet. Encryption is essential to protect confidential data. You control your data and keys.
- **Easy Adoption:** Minimal setup time and zero interference to user workflow.
- **Compliance:** We allow the customer to achieve compliance with CMMC, CCPA, HIPPA, GDPR standards.

Incomparable Advantage:

Active Cypher brings simplicity to Data Loss Prevention by providing protection & security across the entire data supply chain, rendering sensitive data worthless to ransomware attackers, and turning potential data breaches from catastrophes to inconveniences. We place businesses in control of risk at the organizational level and restore the freedom to be effective at the individual level.

Active Cypher puts you back in control of your business operation and critical data.
Protect your data, anywhere.

To learn more, contact:
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