Cloud Information Protection for Amazon Web Services

CipherCloud eliminates privacy and compliance concerns for data stored in Amazon Web Services (AWS) databases such as RDS or the Redshift data warehouse. CipherCloud provides a robust solution for encrypting specific database fields while restricting access to the critical encryption keys. This enables organizations protect information while maintaining querying, reporting, and other key functions.

How it Works

CipherCloud for Amazon Web Services allows you to benefit from the cost savings and elasticity of cloud-based data storage, while assuring that no unauthorized users can access sensitive information, regardless of where it is stored. CipherCloud can inspect content going to and from Amazon databases and apply appropriate security policies, while maintaining the usability of the data. Any database fields can be seamlessly encrypted or decrypted, while preserving database format and key operations such as searching and sorting.

The solution integrates with the driver on the application server, allowing it to inspect content and apply appropriate cryptographic operations locally before forwarding requests to the database. Configuration policies and encryption keys are centrally managed on the CipherCloud Server. Since the data flow remains the same as the original application flow, the performance overhead is low.

CipherCloud supports a wide array of encryption options that can be applied on a field-by-field basis, letting you maximize security, while maintaining the format and function of the data. Specialized encryption options support dates, phone numbers, currency formats, timestamps, email addresses, or structured number strings such as credit cards or social security numbers.

CipherCloud uses AES 256-bit encryption, and robust key management to ensure that no third-parties or unauthorized database administrators can access protected data. This allows organizations to segregate security and database management duties – recommended best practices for compliance. The solution is more secure, higher-performance and easier to manage than conventional file-system encryption or Transparent Data Encryption (TDE).
Key Features

◊ **Seamless Integration with Amazon Databases** CipherCloud protects data stored in Amazon RDS and Redshift. The solution can also integrate with any JDBC-compliant database running on Amazon infrastructure.

◊ **Granular Field-Level Protection** Security can be applied on a granular per-field or per-word basis. Multiple security options let you precisely set the level of security and search-ability for each data type, supporting both structured and unstructured data.

◊ **AES 256-Bit Encryption** CipherCloud uses standards-based AES 256-bit encryption, which is FIPS-compliant and has been extensively reviewed and tested by many independent organizations. This military-grade standard has been deployed for secure government and civilian applications globally.

◊ **Wide Range of Encryption Options** Specialized encryption options support dates, phone numbers, decimal numbers, timestamps, email addresses, or structured number strings such as credit cards or social security numbers.

◊ **Advanced Format and Function Preservation** CipherCloud allows you to preserve the format of database fields, as well as the length of encrypted data strings, avoiding the costs and complexity of modifying existing applications or databases. Advanced encryption methods also preserve business-critical functionality such as searching and sorting of encrypted fields.

◊ **Enterprise Key Management** The solution includes enterprise-grade key management in compliance with NIST SP 800-57 standards. Keys can be stored securely on the CipherCloud platform or separately on a KMIP-compliant server. Keys can be split between multiple custodians, rotated or expired without affecting legacy data.

◊ **High-Performance Architecture** The CipherCloud platform scales horizontally to meet increases in transaction volume and usage. Symmetric encryption along with a stateless, high-throughput architecture can meet the most demanding enterprise loads.

CipherCloud is the industry leader in cloud information protection, enabling organizations to securely adopt cloud applications by overcoming data privacy, residency, security, and regulatory compliance risks.

The award-winning CipherCloud Platform has been deployed globally by Fortune 1000 companies in banking, insurance, healthcare, hi-tech, and government.

CipherCloud protects over:
- 2.6 million users
- 300 million records
- 11 industries
- 25 countries
- 6 languages

Products protected:
- Salesforce
- Force.com
- Chatter
- Box
- Microsoft Office 365
- Google Gmail
- Amazon Web Services
- Any cloud application
- Databases

For more information:
1-855-5CIPHER
(1-855-524-7437)
www.ciphercloud.com
info@ciphercloud.com
Twitter: @ciphercloud
Corporate headquarters:
333 W. San Carlos Street,
San Jose, CA 95110