



- 1 Introduction
 - 1 Encryption at rest in DynamoDB protects your stored data
 - 2 It ensures only authorized access is allowed
 - 3 Think of it like a locker secured with a unique key
 - 4 Even if someone finds the locker, they can't open it without the key

- 2 Why is it useful?
 - 1 Protects sensitive data
 - 2 Automatic
 - 3 Compliance

- 3 Encryption key management
 - 1 Introduction
 - 1 Key management is about how the encryption key, used to secure your data, is created, stored, and controlled
 - 2 In DynamoDB, encryption at rest uses AWS Key Management Service (KMS) to handle these encryption keys
 - 3 With DynamoDB, you have three key management options
 - 1 Owned by Amazon DynamoDB
 - 2 AWS managed key
 - 3 Stored in your account, and owned and managed by you

- 2 Owned by Amazon DynamoDB
 - 1 Key Ownership Fully owned and managed by DynamoDB
 - 2 User Control No control over the key
 - 3 Visibility No visibility into key usage
 - 4 Customization Not customizable
 - 5 Key Rotation Managed automatically by DynamoDB
 - 6 Use Case Simple setup with minimal involvement
 - 7 Compliance Meets AWS encryption standards
 - 8 Example Like trusting the bank to secure your valuables

- 3 AWS Managed Key
 - 1 Key Ownership Managed by AWS but stored in your account
 - 2 User Control Limited control (view usage and logs)
 - 3 Visibility Visible in AWS KMS and CloudTrail logs
 - 4 Customization Limited customization
 - 5 Key Rotation Handled automatically by AWS KMS
 - 6 Use Case For basic encryption needs with some visibility
 - 7 Compliance Suitable for most compliance needs
 - 8 Example Bank-managed locker you can monitor

- 4 Customer Managed Key
 - 1 Key Ownership Created, stored, and fully controlled by you
 - 2 User Control Full control over key policies and management
 - 3 Visibility Complete visibility with detailed monitoring
 - 4 Customization Fully customizable for policies, rotation, etc
 - 5 Key Rotation User can define and control key rotation
 - 6 Use Case Advanced setups requiring compliance or regulations
 - 7 Compliance Best for strict compliance and regulatory needs
 - 8 Example Bringing your own lock for the bank locker