AWS Cloud Practical

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1. SSE-KMS encryption for object in S3
   - **SSE-S3**   → AWS encrypts, no extra control
   - **SSE-KMS** → AWS encrypts and IAM/KMS decides who can decrypt

- While uploading the object into S3 bucket enable the SSE-KMS option in the Server-side encryption as shown below.
- Choose AWS managed key (aws/s3)

Server-side encryption Info

Server-side encryption protects data at rest.

Server-side encryption

○ Don't specify an encryption key
The bucket settings for default encryption are used to encrypt objects when storing them in Amazon S3.

● Specify an encryption key
The specified encryption key is used to encrypt objects before storing them in Amazon S3.

Encryption settings | Info

○ Use bucket settings for default encryption

● Override bucket settings for default encryption

Encryption type | Info
Secure your objects with two separate layers of encryption. For details on pricing, see **DSSE-KMS pricing** on the **Storage** tab of the **Amazon S3 pricing page.** ↗

○ Server-side encryption with Amazon S3 managed keys (SSE-S3)

● Server-side encryption with AWS Key Management Service keys (SSE-KMS)

○ Dual-layer server-side encryption with AWS Key Management Service keys (DSSE-KMS)

AWS KMS key | Info

● Choose from your AWS KMS keys

○ Enter AWS KMS key ARN

Available AWS KMS keys

[arn:aws:kms:eu-north-1:787169320097:key/d64cb4f4-383a-4c9d-94... ▼] ⟳ (Create a KMS key ↗)

Bucket Key
Using an S3 Bucket Key for SSE-KMS reduces encryption costs by lowering calls to AWS KMS. S3 Bucket Keys aren't supported for DSSE-KMS. Learn more ↗

○ Disable

● Enable

Server-side encryption settings Info   (Edit)

Server-side encryption protects data at rest.

Encryption type Info
Server-side encryption with AWS Key Management Service keys (SSE-KMS)

Encryption key ARN
⧉ arn:aws:kms:eu-north-1:787169320097:key/d64cb4f4-383a-4c9d-943b-b334b14757a0 ↗

Bucket Key
When KMS encryption is used to encrypt new objects in this bucket, the bucket key reduces encryption costs by lowering calls to AWS KMS. Learn more ↗
Enabled

- In SSE-KMS, objects are encrypted using AWS Key Management Service. Access to the encrypted object depends on IAM permissions to use the KMS key, providing finer access control.