

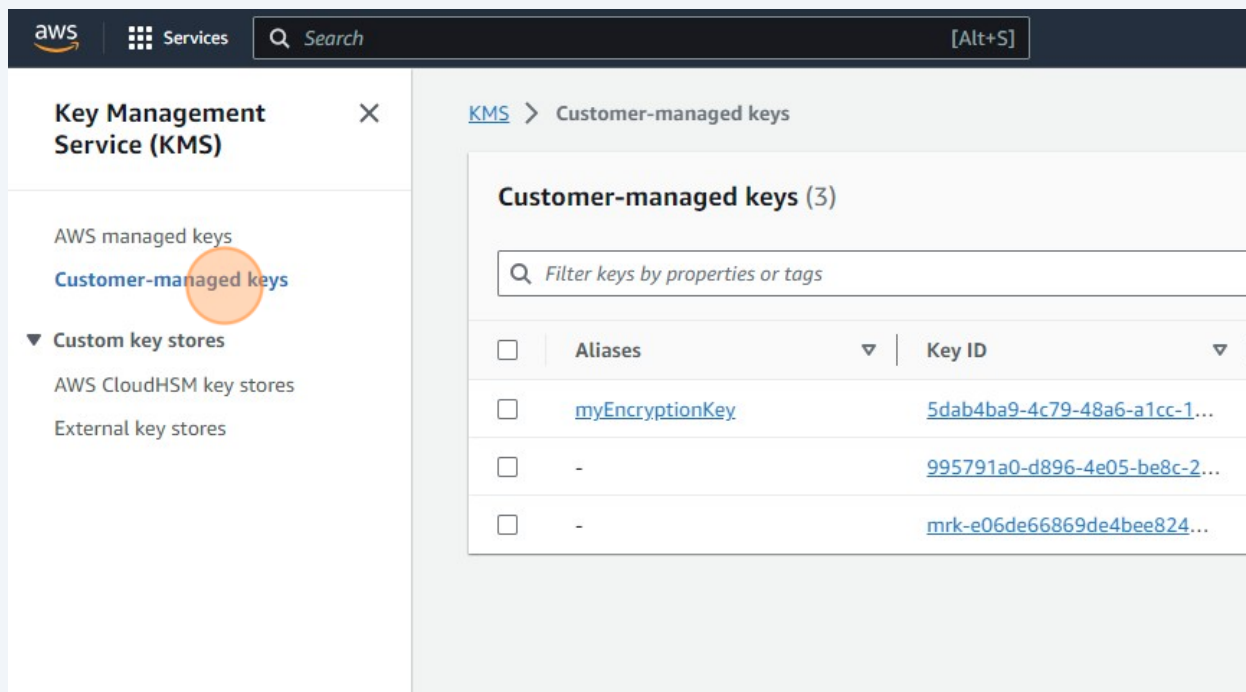
Create and Rotate a Customer-Managed Key in AWS

1

Navigate to <https://us-east-1.console.aws.amazon.com/kms/home?region=us-east-1#/kms/keys>

2

Click "Customer-managed keys"



3 Click "Customer-managed keys"

The screenshot shows the AWS IAM console 'Configure key' page. The breadcrumb navigation is 'KMS > Customer-managed keys > Create key'. The 'Customer-managed keys' link is circled in orange. The page is divided into a left sidebar with steps and a main content area. The steps are: Step 1: Configure key, Step 2: Add labels, Step 3: Define key administrative permissions, Step 4: Define key usage permissions, and Step 5: Review. The main content area has a title 'Configure key' and two sections: 'Key type' and 'Key usage'. The 'Key type' section has two options: 'Symmetric' (selected) and 'Asymmetric'. The 'Key usage' section has two options: 'Encrypt and decrypt' (selected) and 'Generate and sign'.

aws Services Search [Alt+S]

KMS > Customer-managed keys > Create key

Step 1
Configure key

Step 2
Add labels

Step 3
Define key administrative permissions

Step 4
Define key usage permissions

Step 5
Review

Configure key

Key type Help me choose

☒ Symmetric
A single key used for encrypting and decrypting data or generating and verifying HMAC codes.

☐ Asymmetric
A public key used for encrypting data or signing code.

Key usage Help me choose

☒ Encrypt and decrypt

☐ Generate and sign

4 Click "5dab4ba9-4c79-48a6-a1cc-139ee58ee377"

The screenshot shows the AWS IAM console 'Customer-managed keys' page. The breadcrumb navigation is 'Customer-managed keys'. The page title is 'Customer-managed keys (3)'. There is a search bar with the placeholder text 'Filter keys by properties or tags'. Below the search bar is a table with 5 columns: Aliases, Key ID, Status, and Key type. The table contains 3 rows. The first row has a checkbox, the alias 'myEncryptionKey', the Key ID '5dab4ba9-4c79-48a6-a1cc-139ee58ee377' (circled in orange), the status 'Enabled', and the key type 'Symmetric'. The second row has a checkbox, the alias '-', the Key ID '995791a0-d896-4e05-be8c-2...', the status 'Pending deletion', and the key type 'Symmetric'. The third row has a checkbox, the alias '-', the Key ID 'mrk-e06de66869de4bee824...', the status 'Pending deletion', and the key type 'Symmetric'.

Customer-managed keys

Customer-managed keys (3)

Filter keys by properties or tags

<input type="checkbox"/>	Aliases	Key ID	Status	Key type
<input type="checkbox"/>	myEncryptionKey	5dab4ba9-4c79-48a6-a1cc-139ee58ee377	Enabled	Symmetric
<input type="checkbox"/>	-	995791a0-d896-4e05-be8c-2...	Pending deletion	Symmetric
<input type="checkbox"/>	-	mrk-e06de66869de4bee824...	Pending deletion	Symmetric

5 Click "Key rotation"

The screenshot shows the AWS KMS console for a specific key. The key ID is `arn:aws:kms:us-east-1:692796538956:key/5dab4ba9-4c79-48a6-a1cc-139ee58ee377`. The status is 'Enabled' and the description is 'KMS key created for Protecting Data at Rest lab'. The navigation tabs are 'policy', 'Cryptographic configuration', 'Tags', 'Key rotation' (highlighted with an orange circle), and 'Aliases'. Below the tabs, the 'policy' section is visible, followed by 'administrators (1)' with a description: 'Use the IAM users and roles who can administer this key through the KMS API. You might need to add additional permissions for the users or roles to administer'. There is an empty input field below the description.

6 Click this checkbox.

The screenshot shows the 'Key rotation' tab selected in the AWS KMS console. The key ID is `arn:aws:kms:us-east-1:692796538956:key/5dab4ba9-4c79-48a6-a1cc-139ee58ee377`. The navigation tabs are 'Key policy', 'Cryptographic configuration', 'Tags', 'Key rotation' (highlighted with an orange circle), and 'Aliases'. Below the tabs, the 'Key rotation' section is visible, containing a checkbox labeled 'Automatically rotate this KMS key every year. [Learn more](#)' (the checkbox is highlighted with an orange circle). There is also a 'Learn more' link with an external icon.

7 Click "Save"

ata at Rest lab	Regionality Single region
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Save

8 Click "KMS Customer-managed keys Key ID: 5dab4ba9-4c79-48a6-a1cc-139ee58ee377"

[Alt+S]

[Managed keys](#) > Key ID: 5dab4ba9-4c79-48a6-a1cc-139ee58ee377

5dab4ba9-4c79-48a6-a1cc-139ee58ee377

Information

	Status Enabled
East-1:692796538956:key/5dab4ba9-4c79-48a6-	Description KMS key created for Protecting Data at Rest lab



Go to Elastic Block Store and then Click on Snapshots to view the below screen.

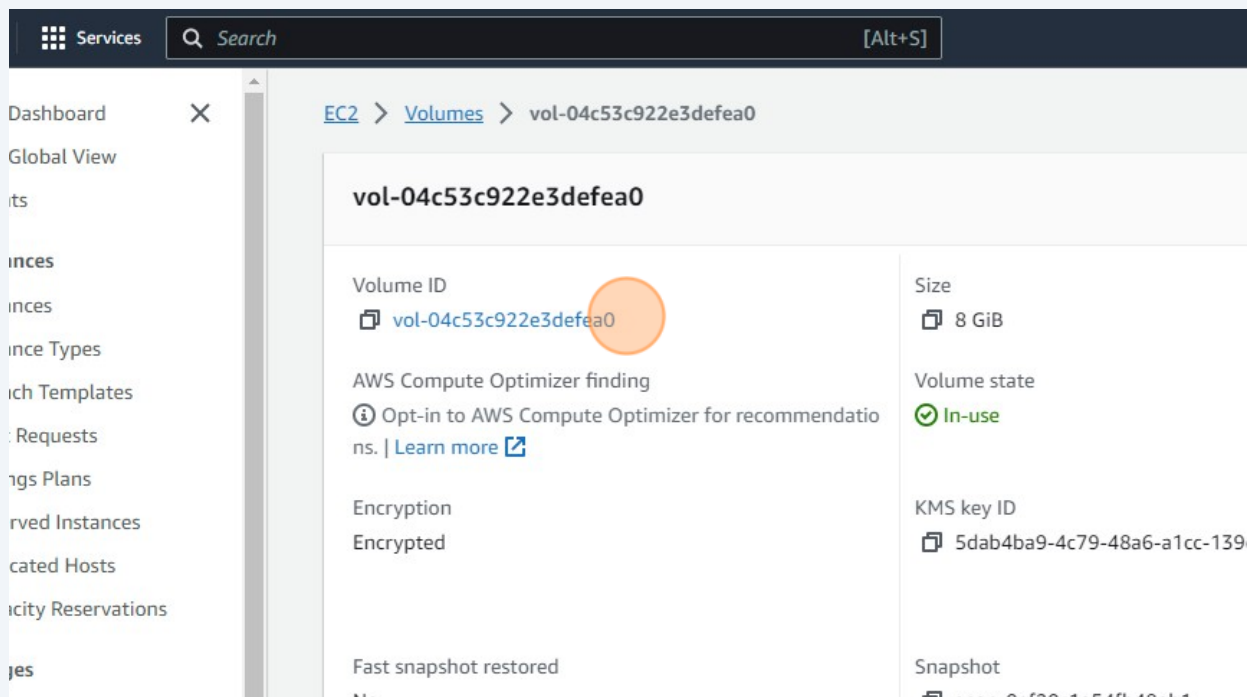
9

Click "vol-04c53c922e3defea0"

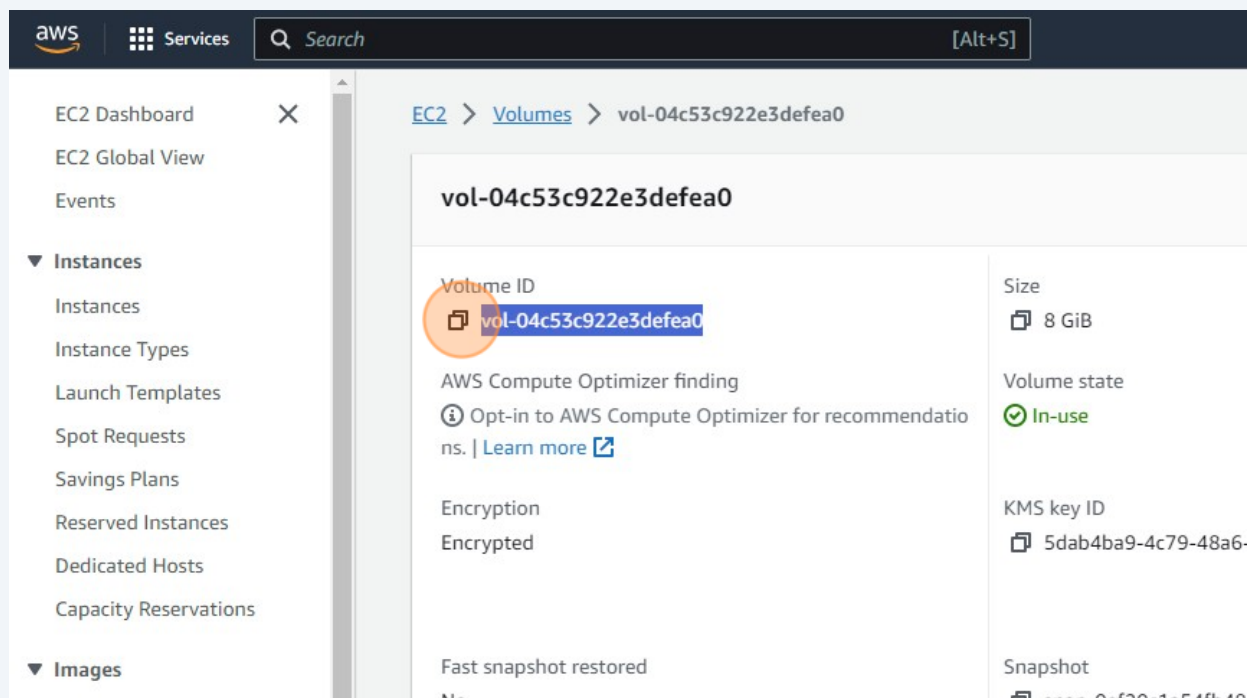
The screenshot shows the AWS Management Console interface. On the left is a navigation sidebar with various services. The main content area is titled 'Volumes (2)' and contains a table of Elastic Block Store volumes. The table has columns for Name, Volume ID, Type, Size, and IOPS. Two volumes are listed: 'vol-079652d3d6e64a588' and 'vol-04c53c922e3defea0'. The second volume is highlighted with an orange circle.

Name	Volume ID	Type	Size	IOPS
-	vol-079652d3d6e64a588	gp2	8 GiB	100
-	vol-04c53c922e3defea0	gp2	8 GiB	100

10 Click here.



11 Click here.





The Validation method only checks to see if the volume is encrypted or not so there's no need to create a new volume. That's why I used the volume that had encryption enabled.

12 Click here.

Lab is Ready! [01:26:48]

Open AWS Console

While using the AWS Console, do not deviate from the instructions. Doing so may cause your access to be terminated.

Files Steps

g Data at Rest

VITIES

Enable KMS key rotation on your Amazon EBS volumes using a customer managed key.

VALIDATION FORM

Paste or type the validation criteria below:

Key ID

5dab4ba9-4c79-48a6-a1cc-139ee58ee377

EBS volume ID

vol-xxxxxxxxxxxxxxxx

Validate

Skip

13 Press **ctrl + v**

14 Click here.

The screenshot shows the AWS Console interface during a key rotation process. On the left, there's a sidebar with an 'AWS Console' button and a 'Steps' button. The main area is titled 'Paste or type the validation criteria below:'. It contains two input fields: 'Key ID' with the value '5dab4ba9-4c79-48a6-a1cc-139ee58ee377' and 'EBS volume ID' with the value 'vol-04c53c922e3defea0'. Below these fields are two buttons: a green 'Validate' button and a blue 'Skip' button. A red circle highlights the 'Validate' button. The background is a dark blue gradient with a city skyline silhouette.

15 Click here.

