AWS Lab 4

Creating EBS Snapshot and Restoring.

Overview of the lab

In this lab you will learn to how to create EBS snapshot and create volume from snapshot

EBS volume Encryption

EBS volume can be encrypted in server-side by key provided by EBS or KMS

Snapshot

It is a point in time backup to the EBS volume of EC2 instance

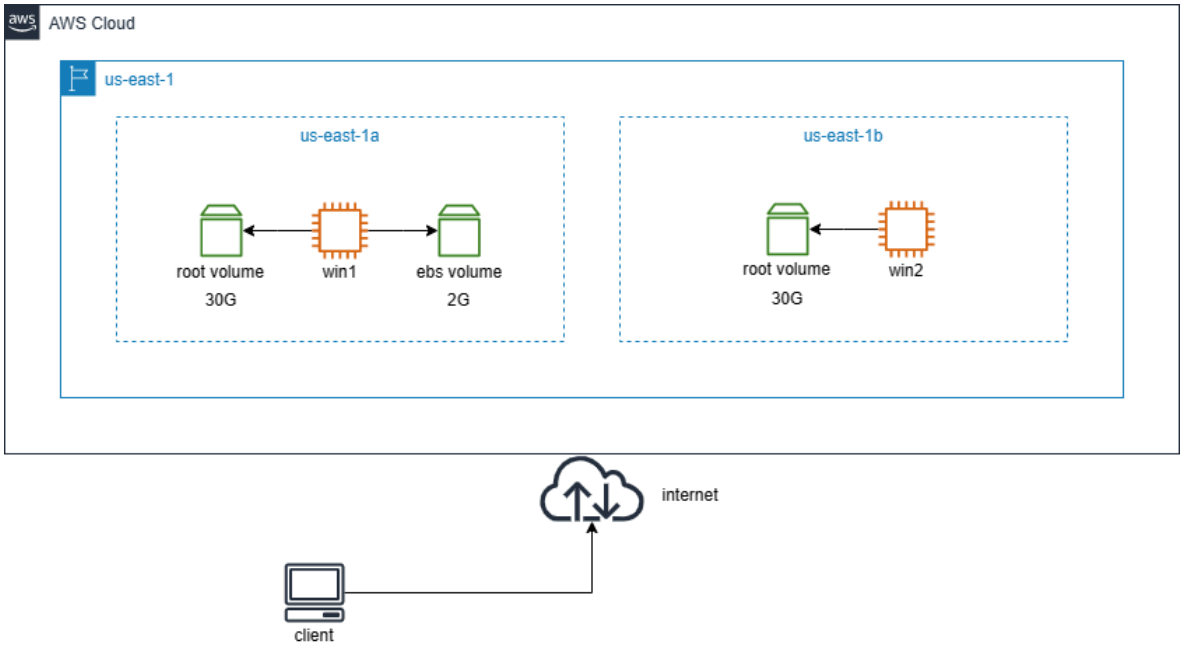
It is regional

It is incremental

For free tier account - 1GB snapshot can be taken for free

Encrypted snapshot is created from encrypted volume and unencrypted snapshot is created from unencrypted volume

Initial Architecture



Step by Step Lab

Launching windows instance in us-east-1a

1. Launch an EC2 instance
    a. Name and tag – win1
    b. Application and OS Images – Windows
    c. Instance type - t2.micro
    d. Key pair – select the existing keypair
    e. Edit Network settings
        a. Subnet – subnet in us-east-1a
        b. Firewall – select existing security group
    f. Configure storage - Click on advanced

a. Volume1 - (30GB - gp2)

b. Click on add new volume - Volume2

(Size - 2GB , delete on termination - yes, Volume type - gp2, encrypted - encrypted, kms key - default key)

c. Launch instance

Launching windows instance in us-east-1b

2. Launch an EC2 instance
    a. Name and tag – win2
    b. Application and OS Images – Windows
    c. Instance type - t2.micro
    d. Key pair – select the existing keypair
    e. Edit Network settings
        c. Subnet – subnet in us-east-1b
        d. Firewall – select existing security group

(leave all other settings default)

f. Launch instance

Connect to win1 and create new volume and store data

3. Connect to remote windows (win1) via RDP and verify disk

    diskmgmt.msc

4. In disk management,
    a. Select disk1 and make online
    b. Again select and initialize

c. Right click on the unallocated portion and create new simple volume D drive
d. In D drive store data

Create snapshot from the volume

5. Select win1 instance - click on storage - click on volume2 (2GB)

6. Select volume - click on Actions - Create snapshot

7. Description - snap1 - Create snapshot (wait for snapshot to get created)

Create volume from snapshot (Restore) in same AZ(us-east-1a) or different AZ(us-east-1b)

8. In snapshots - Select snapshot - in Actions - create volume from snapshot

9. Select AZ - us-east-1b - create volume

Attach volume to win2 instance and verify data

10. Select the volume created from snapshot - go to Actions Click on attach volume

11. Select the instance (if volume is created in us-east-1b, it will show instance in that AZ) and click on attach volume

Connect to win2 and verify the volume

12. Connect to remote windows (win2) via RDP and verify disk

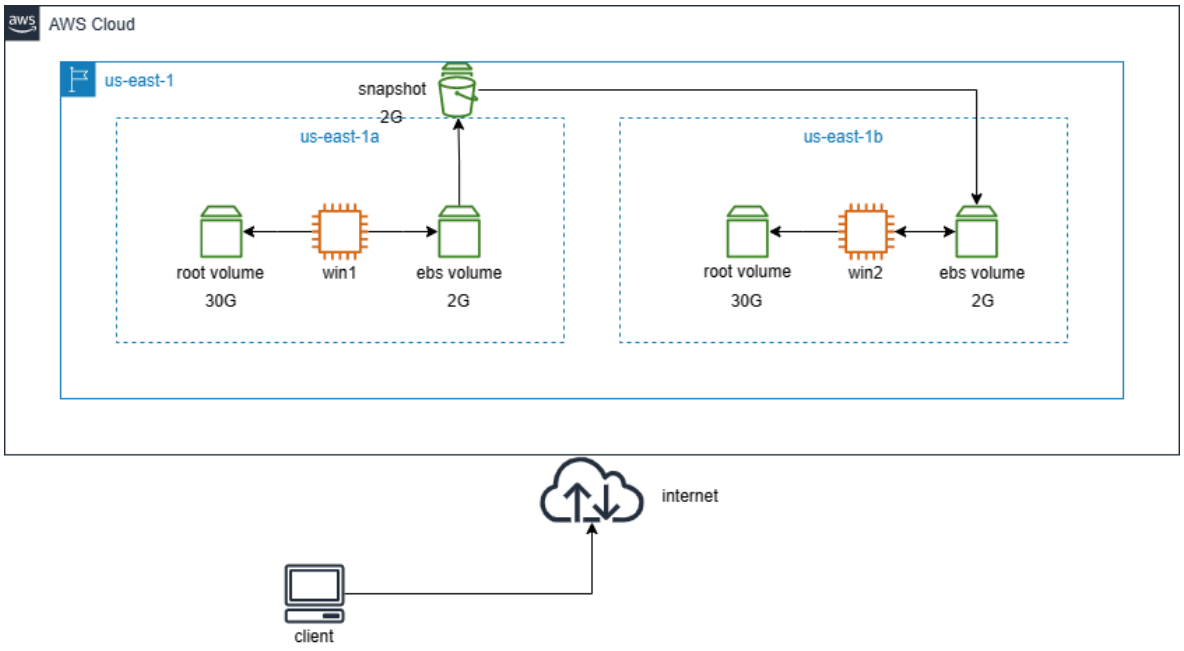
    diskmgmt.msc

13. In disk management,

    a. Select disk1 and make online

(you will see the same data what is stored via win1)

Final Architecture



Clean Up Step

1. Select the instances(win1 and win2) and terminate it (volumes with delete on termination enable will be deleted
2. Click on volumes - select the volume which are not deleted when terminating instance - go to actions and delete

3. Click on snapshots - select the snapshot and go to actions and delete snapshot