EC2

EBS having storage for your instances different between S3 bucket and EBS volume.

S3 bucket capable of handling object based storage. We call it as object since it can be any type of object. It can be mp3 file, image or any other file system which is available.

S3 bucket not having capability of handling os level storages. To achieve os level storages which we have a kind of RAM to achieve RAM you need os capability storage is called as block storage

EBS volume is block storage .you need to be always attach to the instances without EBS volulme (Elastic Block Storage) you cannot create a EC2 instances while launching a instances itself you have noticed as well.

Let me launch one instance quickly

4. Add storage while launching the instances itself. you can attach multiple EBS volume to your instances while launching itself.

We are going to see how to attach a add volume and how to mount it to a particular instances.

Volume type

GPSSD(solid state device)

Are more capable and boot instantly or

it going to deliver a product whatever storing

It going to deliver pretty much instances

So that is the use of the SSD

IOPS & magnetic tapes

Provisioned IOPs SSD is nothing but GP SSD for this particular GP SSD we have going to have the no of IOPS as 100 to 3000. IOPS-I/p o/p process system.

GP3 upto 10000

Provisioned IOPS SSD is more capable and it can be extended how much IOPS is required.IT going to be more efficient and going to cost.

Magnetic(standard)-floppy storing data as a magnetic memory. Magnetic tapes not recommended. Magnetic tape are very slow to deliver your process and it is also not capable of handling higher application outdated.

Review and launch instances

In real time we have snapshots .What mean by snapshot is for eg: you have a Prod server up and running going to point your end application may be fi have any issue with this application it is going to impact your end user application. You need to backup for this environment. If you have huge no of production and there is some default AWS suggestion that for every 3 months the AWS which we are using. Amazon linux Ami to be launch the particular instances.

Images

AMI

In realtime eg Prod server is up and running now so for this particular prod server I have been lot of infrastructure setup. I being configuration my apache tomcat server is up and running it as date to that where exactly date will be stored. It will be stored in a EBS volume. You need to take a backup of EBS volume and need to replicate the infrastructure as told before every 3 months there should a AMI patch (upgrade AMI so to upgrade to some other infrastructure to achieve to some other infrastructure to achieve this next goes entire infrastructure to be replicated. Any date critical should not be lost to achieve that we need to take snapshots let see how to take snapshot of your volume. Data stored in root volume so we don’t have any other volume till now only root volume. Let me show you how to take snapshot of your volume

Snapshot -> create a photocopy of your current volume

By using snapshot we can create new volume or even create new ami itself.

Eg: vulnerability frequently check your infrastructure this particular instances is up and running for a while and there is lot of upgrades need to be completed in particular instances, Can you upgrade the AMI that is what they going to suggest you. Only when you upgrade the infrastructure only when you have instances AMI up to date there will some supports provided if you don’t have proper AMI updates there own be support from Aws so there should

1. Completed your AMI patches kindly come back to us. You need to take a snapshot and create one volume and attach to your existing instances or create a AMI itself. Why

Creating a AMI with existing volume by using the volume we can launch a new instances itself. We are going to replicate the infrastructure In another instances and then we are going to point the DNS from the POD to another PROD server. Let me show you how to do that copy volulme ID.

Take a snapshot how?

EBS

Snapshots

AMI deregister

Snapshot delete snapshot

Create snapshot

Choose snapshot and provide volume an then description my dev. Click create snapshot

progress provisioning

and entire thing going to take a snapshot 10 to 15 mins depend s upon the size of the volume

Available wait until Is going to take completed.

I have created one snapshot

Actions

Create a image using volume

Choose the snapshot and go to actions and click create image from snapshot and also you can create volume

Image settings

Image name

Prod

Virtulization type

Paravirtual is nothing but if you have a container up and running infrastructure you need to use paravirtual

Select h-A virtualization

Volume

I am attaching my volume as well

Create image

Image

AMI- it will have AMI over here

AMI name prod

Instances

I have prod instances it is end point now. Click launch instances

Choose my AMI images

Going to have custom images

Select

Review and launch

Launch

Entire infrastructure going to replicate with custom AMI

Whatever I have in prod server, it is going to create one new server. Edit as prod

Prod as backup

I have my instances up and running. So I can login to my server and what are the thing updated app up and running there is some validation things will happen once validation completed go to route 53 or domain server

Instead of this ip address

You are going to change that new DNS name. Now point change .Pointing everything over here instead of having this

Prod -Back

Prod

In realtime Ami patch works

I will take my volume as a snapshots and I am going to create a new infrastructure and going to point my new infrastructure in the DNS.

Advantage of snapshot:

Changing in current infrastructure you take snapshots of current volume and then do the changes. When you do this it is going to act as a server backup.

Snapshot are important in your day to day activity

Created a manual snapshot

Automatically create a snapshot going to use lifecycle manager

Next step

This particular time, particular volume you need automatically take the snapshot

Target resource tags

Name Prod +Add

Policy description

App -It cost you

IAM role

Attach IAM role . IAM role nothing but communicate between resources. Create one IAM policy and you give permission to access the volume and instances.

Cron job details

Schedule details

Lifecycle manager do it will be automatically take snapshot without normal snapshot it going to create automatic snapshot

Tag instance

If you tag instances all the instances going to take backup.

Adding EBS volume to your instances how to increase your volume

Delete backup

Prod connect

Connect live instances your volume may be not enough requirement of create a couple of new volume which is for your app or log any other application.

Sudo su

Df -h

/dev/xvda 8gb memory

Lsblk

I am going to attach a new volume. How ?

Elastic block store

Volumes

Create volume

Size 30GB

Us-east-ta

No need snapshot -optional

Click create volume

Show available attach to any of the instances over her. Let me attach to this particular instances ID. I need to this particular instance ID

Elastic block store

Volume

Actions

Click attach volume

Choose instance over here

Device name any name going to given here

/dev/sdf volume

Click attach volume

I have attached volume to my instances. I have did n’t mounted to my instances. I have didn’t mounted the volume. You have to mount the volume to activate the volume

Instances

/dev/xvda

/dev/sdf

Cd /dev

Ll

Lsblk available disk

Df -h mount on /

File -s /dev/xvdf

Mkfs -t xfs /dev/xvdf

File -s /dev/xvdf

Cd /root

Mkdir app

Chmod 777 app

Mount /dev/xvda /root/app

Lsblk

Df -h

Same volume to multiple instances

Elastic block store

Volumes

Actions detach volume

Then you can attach to any other instances as well.