Attaching EBS Volume to the Windows EC2 Server  
  
  
Here we will attach a newly created EBS volume to the existing windows 2019 server created using EC2.

EBS Volume can be attached to only one instance at a time.

Architecture:-

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The diagram Shows the EC2 Windows 2019 Server inside Public Subnet of a VPC. In this project we will use default subnet and VPC created by AWS. Soon we will have a dedicated project for VPC.

**Note:-** We can add additional EBS Volume while creating the new server as well.

**Steps:-**

1. I Have already Created Windows Server 2019 using EC2.

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Now we will connect to the EC2 instance and check the present root Volume via GUI. We will connect to our EC2 instance using RDP client and verify the Volume of instance.

**NOTE:-** By default, we get 30GB EBS root volume. As shown in the below image.

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Another way of verification is from the DISK MANAGEMENT window.

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1. **Now Navigate to EBS from EC2 Dashboard🡪Volumes to create additional EBS Volume.**

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We can already see a volume present which is the root volume of already created EC2 Server.

**Click on create volume**.

We can choose our volume according to our needs (gp3, gp2, io1, io2, cold HDD, throughput HDD, Magnetic) are the current volume types. Enter the size, IOPS, Throughput according to our need. Choose the AZ Here make sure that we create the EBS volume in Same AZ as of our Server. Check “Encrypt this volume” if required we can opt for Encryption only while creating a new volume.

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**A screenshot of a computer

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Click on Create Volume.

Now we can see both the volumes in Volumes Dashboard.

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Project is not yet completed we must attach this volume to our EC2 Server Instance. A screenshot of a computer

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Here we can see created volume is not yet attached.

1. Attaching Created EBS Volume to our EC2 Instances.

Select the created volume. Navigate to Actions🡪Attach Volume.

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Here Select our EC2 Instance to which we want to attach this volume. Please select the right EC2 Instance.

Click on Attach Volume.

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Here we can status changed in attached resources section.

Still We are Not Seeing the Secondary Volume inside the Server……….?

Because we are using bock storage we need to format before using it.

Navigate Inside the Server, Win+R give the command **diskmgmt.msc**

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On Disk 1 Right Click 🡪 click Online. Then again right click and click initialize disk.

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Now again Right Click and Click on Allocate. It will Automatically Format the Disk and allocate the disk.

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Now we can see the created volume in Windows Explorer as well.

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**We Can Modify the EBS Volume Size.**

Navigate to Volume Dashboard🡪 Actions🡪Modify Volume.

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Click on Modify

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We can see the size of the volume increased.

Inside Windows server🡪 Disk Management we again need to format and allocate the increased size volume. (We need to Extend the current volume)

By default, it is an unallocated size.

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Right Click on current volume🡪Extend click on. This will extend the current storage with the increased volume size.

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If we don’t want the extra EBS Volume to our EC2 Instance, we can detach the volume by navigating to Actions🡪Detach Volume.

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Note that This will Detach the volume from EC2 Instance it won’t Delete the Volume.  
Once we have Detached this volume, we can attach this volume to other EC2 Instance.

We Don’t need to power off our EC2 Instance when we are modifying Volume size or Detaching or attaching the volume.

**Note:- We cannot Copy the Volume from one AZ to another AZ. OR One Region to Another Region.**

We need to create a Snapshot of this volume and copy the snapshot across region or AZ then create the volume using that snapshot.

We can delete the EBS Volume which is not in use. (Detached Volumes can be deleted).