AWS Services

**AWS** comprised more than 165 **services** spanning a wide range including computing, storage, networking, database, analytics, application **services**, deployment, management, mobile, developer tools, and tools for the Internet of Things.

Compute

EC2

EC2 auto-scaling

EC2 container registry

Elastic container service

Elastic Kubernetes Service

Lightsall

Batch

Elastic beanstalk

Faragte

Lambda

Outposts

Serverless Application Repository

Wavelength

VMWare cloud on AWS

Configuring EC2 instances

1. Open AWS console and login to your account.
2. Select EC2 from the above services menu and select EC2 dashboard.
3. Choose AMI.
4. Choose instance.
5. Configure instance.
6. Add storage volume to instance .
7. Add tags to identify resources.
8. Configure security group.
9. Review settings and launch.
10. Create or select keys to access the instance.

Setting up security groups

1. Open AWS console and login to your account.
2. Select EC2 from the above services menu and select Security Group under Network and Security.
3. Click on create Security Group.
4. Select the “Create Security Group” button.
5. Enter security group name and description.
6. Select appropriate VPC.
7. Add rules by pressing the add rules button.

Elastic IPs

An Elastic IP address is a static IPv4 address designed for dynamic cloud computing. An Elastic IP address is associated with your AWS account. With an Elastic IP address, you can mask the failure of an instance or software by rapidly remapping the address to another instance in your account.

An Elastic IP address is a public IPv4 address, which is reachable from the internet. If your instance does not have a public IPv4 address, you can associate an Elastic IP address with your instance to enable communication with the internet; for example, to connect to your instance from your local computer.

Assigning EBS Volumes

1. Open AWS console and login to your account.
2. Select EC2 from the above services menu and select volumes under Elastic Block Store.
3. Click on create volume.
4. Select the volume type and size according to the usage. Assign an availabilty zone.
5. Click on create volume. You can add this EBS volume to required instance when you’re configuring the storage of your instance.

AMI

An Amazon Machine Image (AMI) provides the information required to launch an instance. You must specify an AMI when you launch an instance. You can launch multiple instances from a single AMI when you need multiple instances with the same configuration. You can use different AMIs to launch instances when you need instances with different configurations.

An AMI includes the following:

1. One or more EBS snapshots, or, for instance-store-backed AMIs, a template for the root volume of the instance (for example, an operating system, an application server, and applications).
2. Launch permissions that control which AWS accounts can use the AMI to launch instances.
3. A block device mapping that specifies the volumes to attach to the instance when it's launched.

You can launch an instance from an existing AMI, customize the instance, and then save this updated configuration as a custom AMI. Instances launched from this new custom AMI include the customizations that you made when you created the AMI. The root storage device of the instance determines the process you follow to create an AMI. The root volume of an instance is either an Amazon EBS volume or an instance store volume.