

21.21Apr.Adv Cloud Services

21 April 2023

07:21 PM

AWS

- IAM
- S3
- EC2
- RDS

- Public IP(International) vs Private IP(Landline/LAN)
- ELB = Elastic Load Balancer
- EKS = Elastic Kubernetes Service

Public IP:

- Unique IP for all over the world.
- Static IP Address
- Paid IP Address
- Like Original Full name
- You can Access anywhere in the world
- No more IPs we used. --> 1 Company Max: 3/5
- Elastic IP

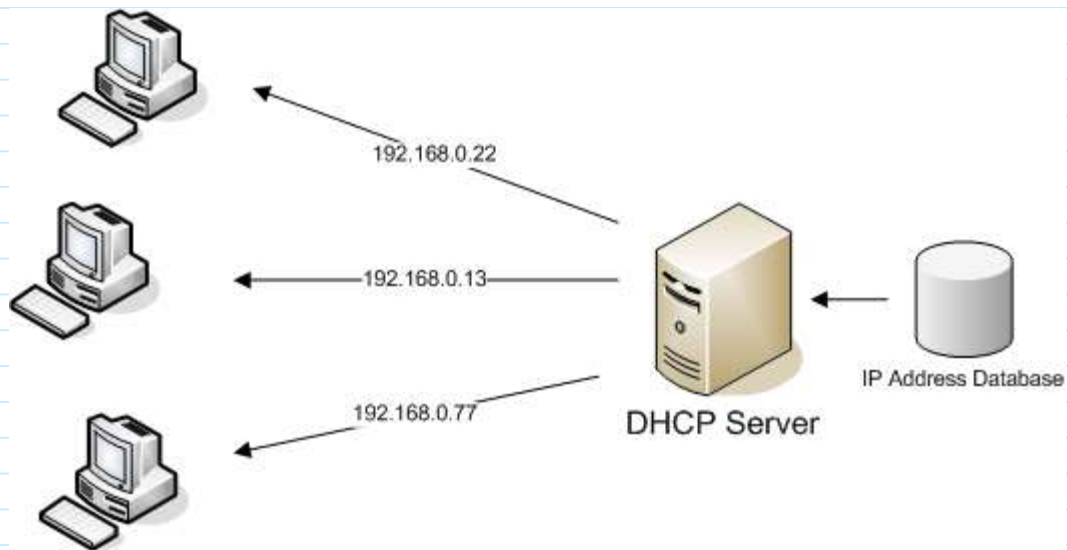
Private IP:

- Unique IP for Only within network(LAN)
- Dynamic IP Address
- Free IP Address
- Like a Nick name in home
- You can create/Assign a range of IP address
- Private CIDR Block
 - 192.168.0.0/24

ShareIt --> AP=HotSpot --> Private IP

DHCP

- Dynamic Host Configuration Protocol
- Provides an IP to the host system



ELB

- Which handle/distribute traffic effectively.
- Types of ELB
 - Application LB
 - Network LB



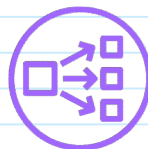
Classic Load Balancing

VS.



Application Load Balancer

VS.



Network Load Balancer

ALB:

- OSI Level 7(Application Layer)
- Based on **content** redirect

NLB

- OSI Level 3(Network Layer)
- Based on **number of users**.

OSI Model(7Layers)

1. Application = HTTP, SSH, DNS,
2. Presentation
3. Session
4. Transport
5. Network = IP, ICMP, IPSec
6. Data Link = Switch, Bridge
1. Physical = Hubs, Repeater, Fiber, Wireless

ALB

S1

S2

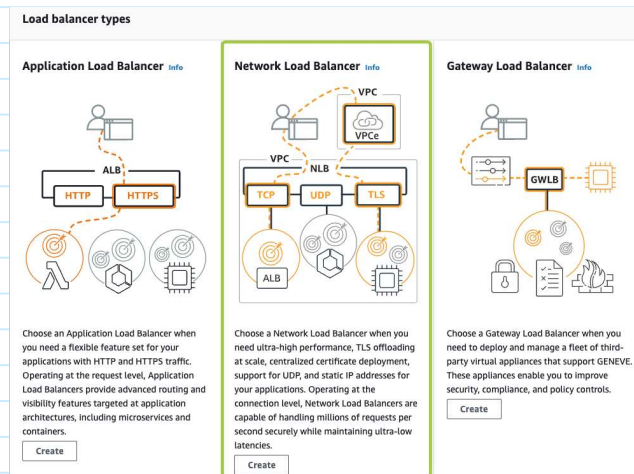
Image Check in Database
Processing Email, Create Challan
Memory Optimized Storage Optimized

Airtel Card Aadhar(Image/ID)
ALB

S1 S2
Image Number
Processing
Memory Optimized

NLB

S1 S2
70% 30%

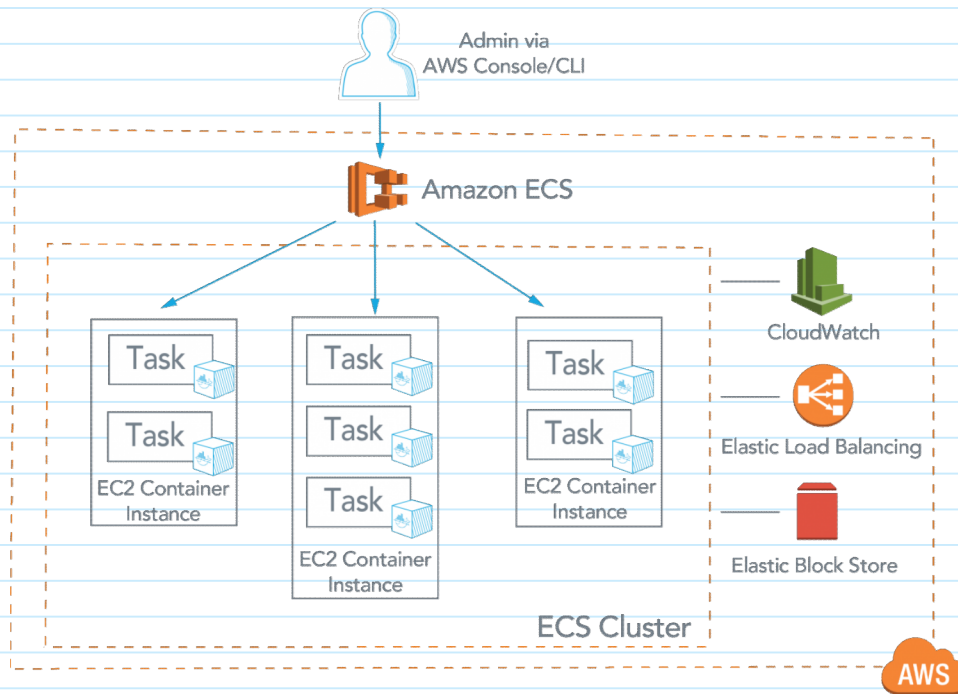


ALB

- Server Base = EC2(Instance)
- Serverless = Microservice (Lambda)
- Containers = Docker(ECS)

ECS

- PaaS for Containers



ECS Cluster

- S1(EC2 Instance) = Docker Engine --> Container (Window)
- S2(EC2 Instance) = Docker Engine --> Container (Ubuntu)
- S3(EC2 Instance) = Docker Engine --> Container (Mac)

Window-OS = 30%

Linux-OS = 30%

Mac-OS = 30%

Docker Engine = Any Image

Drone Cluster

Cloud: Containerization/Orchestration

AWS : ECS/EKS

Azure: ACS/AKS

Google: GCS/GKS

AWS CloudFront

- CDN- Content Distributed Network Service
- Speed up distribution of your static web contents
 - Files(.css, .js, .html, images)