Terraform: Load Balancing in AWS

➤ Amazon AWS **Elastic Load Balancer** is a purpose built service for distributing workloads.

➤ For ELB, User must specify One Public Subnet for at least two availability zones.

➤ Accept incoming traffic from client and route to Target.

➤ Monitor Health of registered target and send traffic to only healthy Targets.

➤ Deleting ELB won't delete the targets associated to it.

➤ Supports SSL offloading which allow ELB to bypass SSL termination by removing SSL based encryption.
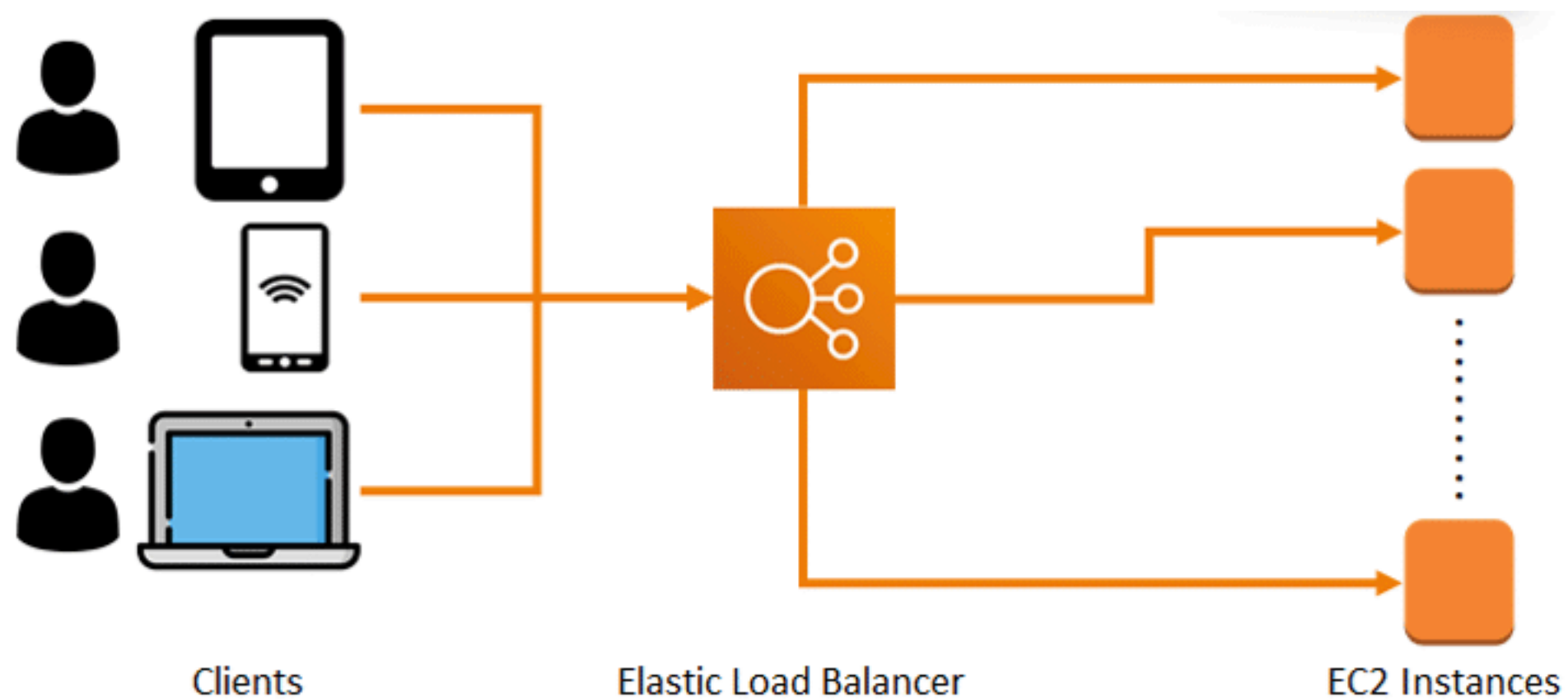
Clients   Elastic Load Balancer   EC2 Instances

➤ **Types of AWS Elastic Load Balancers :**

  ➤ Classic Load Balancer

  ➤ Network Load Balancer

  ➤ Application Load Balancer

➤ **Classic Load Balancer** - Used for EC2 Classic Instances only.

➤ This is the previous generation's load balancer and also it doesn't allow host-based or path based routing.

➤ Routing decisions can be taken in transport layer (TCP/SSL) or the application layer (HTTP/HTTPS).

➤ Classic Load Balancers require a fixed connection between the load balancer port and container instance port.

➤ **Network Load Balancer** : Works at Forth Layer of OSI, it uses TCP and UDP connections only.

➤ It can handle millions of requests per second.

➤ Support the Static IP address for Load Balancer.

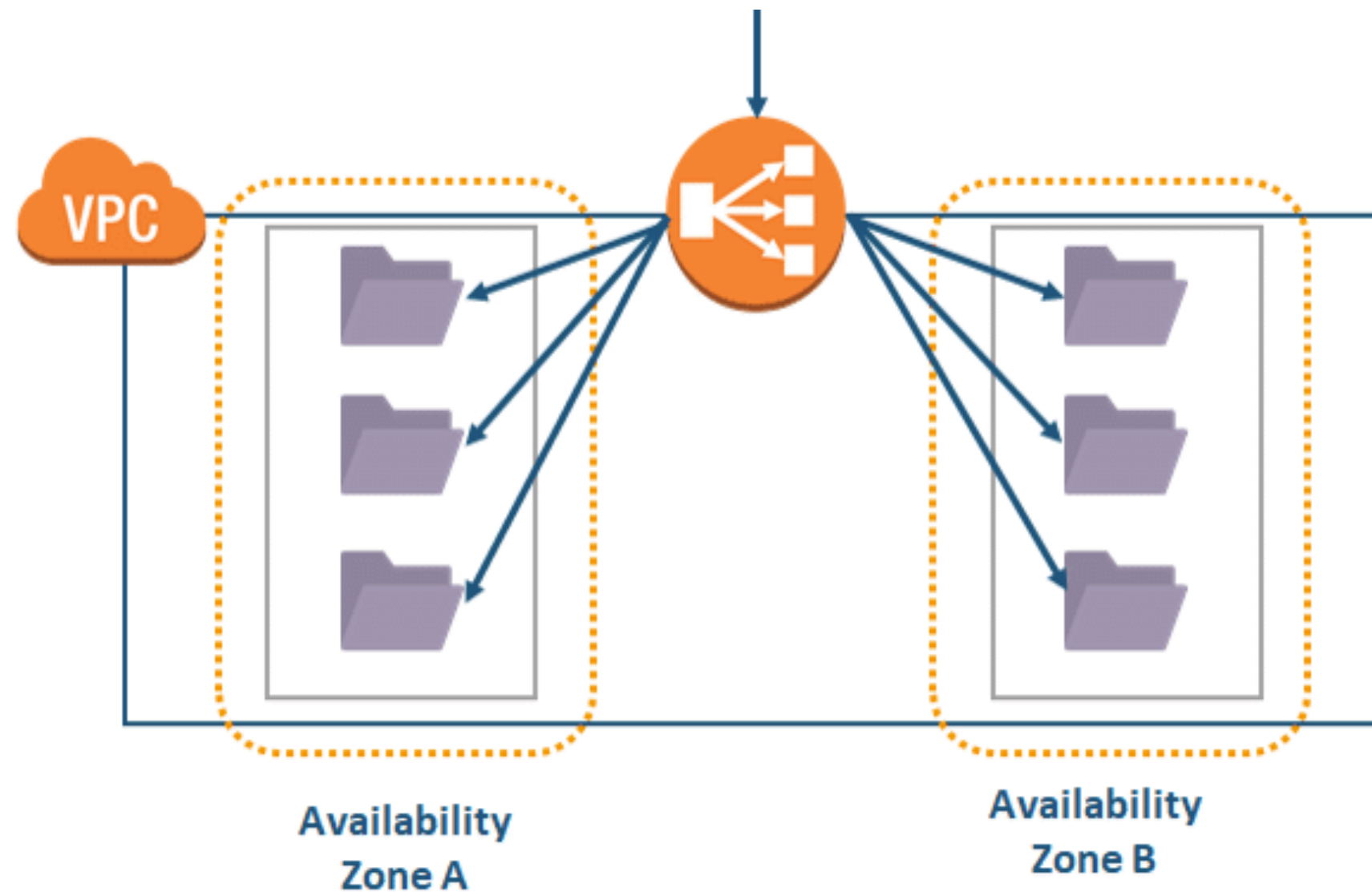➤ It supports routing request to multiple applications on single EC2 Instance.
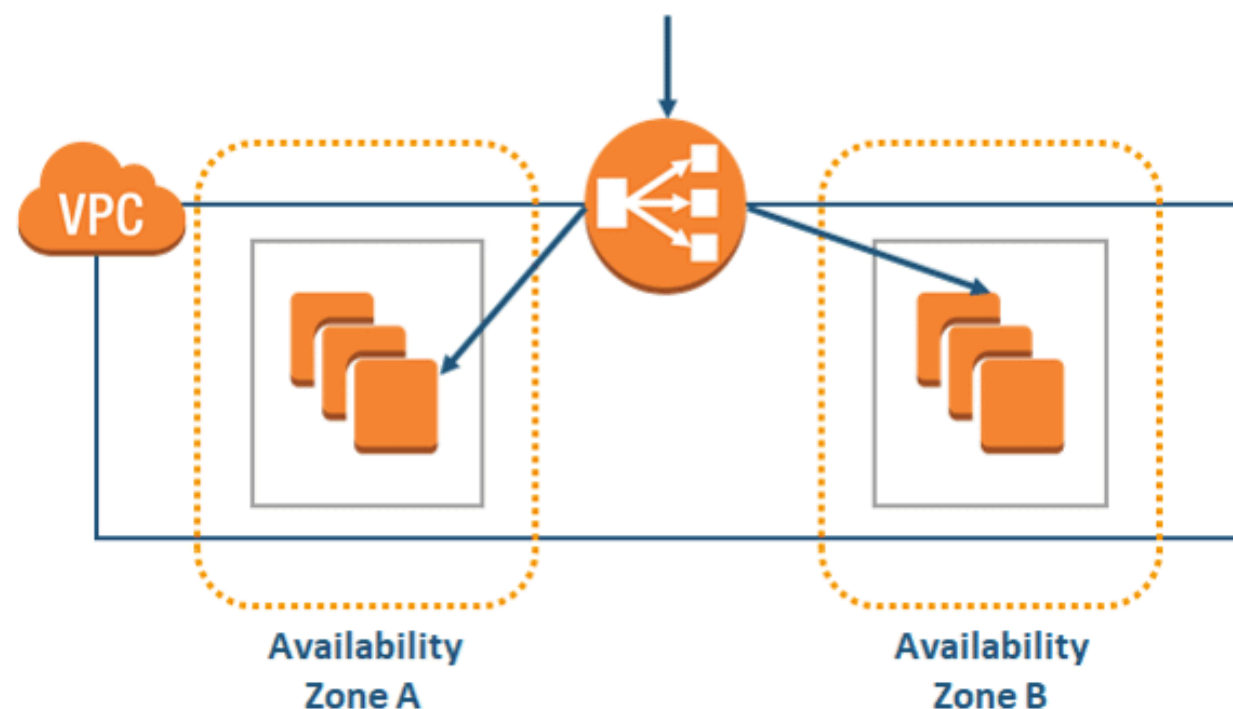
➤ **Application Load Balancer** : Application Load Balancer in AWS makes routing decisions at the application layer (HTTP/HTTPs) of the OSI model.

➤ ALB supports path-based and host-based routing.

➤ Cross-Zone load balancing is enabled.

Availability
Zone A

Availability
Zone B

See you in next lecture ...