

# AWS Route53 Notes

## AWS DNS Service (Domain Name System)

- Internet traffic – Public hosted zone - Example (Internet Gateway)
- Internal VPC – Private hosted zone e.g. (NAT gateway)

### Uses:

A client is hosting a website a cluster of EC2 instances running in AWS behind an ALB and need a DNS service. You suggested Route53.

1. Client is requesting you to help create a public hosted zone to host this ALB Cname endpoint to customers can access the website using a FQDN ([www.example.com](http://www.example.com))
  - Domain Name registration ([www.example.com](http://www.example.com))
  - Route internet/Internal traffic
  - Manage health checks for DNS services
1. Domain Name registration
  - a. [www.example.com](http://www.example.com), [www.example.org](http://www.example.org) etc.
2. Route internet/VPC traffic
  - a. Hosted Zone
    - i. Multiple records
      1. A Record → IPv4 IP
      2. AAAA Record → IPv6 IP Address
      3. NS → Name Servers
      4. SOA → Start of Authority
      5. MX – Mail exchange
      6. CName → Canonical Name
3. Health Check for Resource Endpoint e.g IP, DNS name, FQDN
  - a. 80 → http
  - b. 443 → https
4. FQDN → Fully Qualified Domain Name

## Routing Policies in Route53

- **Simple routing policy** – Use for a single resource that performs a given function for your domain, for example, a web server that serves content for the example.com website.
- **Failover routing policy** – Use when you want to configure active-passive failover.
- **Geolocation routing policy** – Use when you want to route traffic based on the location of your users.
- **Geoproximity routing policy** – Use when you want to route traffic based on the location of your resources and, optionally, shift traffic from resources in one location to resources in another.

- **Latency routing policy** – Use when you have resources in multiple AWS Regions, and you want to route traffic to the region that provides the best latency.
- **IP-based routing policy** – Use when you want to route traffic based on the location of your users and have the IP addresses that the traffic originates from.
- **Multivalue answer routing policy** – Use when you want Route 53 to respond to DNS queries with up to eight healthy records selected at random.
- **Weighted routing policy** – Use to route traffic to multiple resources in proportions that you specify.

You can read more here

<https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-policy.html>