Routing

Đà Nẵng, năm COVID thứ 2

Elastic Load Balancer (ELB):

ELB Load Balancer types in AWS:

- Application LB (ALB or ELBv2)
- Classic LB (ELBv1)
- Network NLB
- Gateway LB

Route 53:

- Worldwide distributed DNS with 100% SLA.
- Is also a registrar for your domain name.
- Has an API.
- Can do server health checks.
- Two types of zones:
  - Public hosted zone: visible on internet.
  - Private hosted zone: used only from within your VPCs. You need to enable « DNS Resolution » and « DNS Hostnames » on the VPC.
- Refer to the VPC notes for more information about private hosted zones.
- You can associate any DNS record type except SOA and NS records.

DNS standard record types:

- A: IPv4 address for a DNS name.
- AAAA: IPv6 address for a DNS name.
- CNAME: Alias (Canonical name)
- MX: email
- TXT
- SRV
- SPF: Sender Policy Framework: IP address of email gateway to avoid spoofing.
- NS: name server record.
- SOA: Start of authority.

Route 53 Routing Policies:

- Simple routing policy:
  - Associates an A record with one or more IP addresses.
  - You can’t use multiple records of the same name and type with simple routing.
  - However, a single record can contain multiple values (such as IP addresses).
  - In case of multiple IP addresses, the list is returned in a random order.
- Failover routing policy:
  - Active-passive failover between a primary record and a secondary record.
  - Both can be single or multiple records.
  - Route 53 does NOT respond to DNS queries using the secondary record until ALL primary records are unhealthy.
  - A popular scenario for web sites is to have a failover policy to a static web site in S3.

- Geolocation routing policy:
  - Based on the location of your users: by continent, by country or by state (the latter for US only).
  - Does not necessarily mean the best latency.
- Geoproximity routing policy – Based also on the location of your users. Uses a geoproximity map that you can alter.
- Latency routing policy:
  - Based on latency between the user and the AWS data centers.
  - AWS maintains a database of latencies from different parts of the world.
- Multivalue answer routing policy – Responds 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.

AWS CloudFront