**ROUTE53**

<http://clusterfrak.com/notes/certs/aws_saa_notes/>

Amazon Route 53 is a highly available and scalable cloud Domain Name System (DNS) web service.

* ELBs do not have a pre-defined IPv4 address. You resolve them using a DNS name.
* The Apex domain record MUST be an A record or an alias.
* Aliases map AWS resources to zone records.
* Alias records you are not charged for, CNAME records you are charged for
* Always chose an alias record, over a CNAME record, as alias records are free, and can be mapped to a domain apex record where CNAMES cannot
* Limit of 50 Domain Names can be managed in Route53. This limit can be raised by support.
* Route 53 Routing Policies:
  + Simple
    - Default routing policy when you create a new record set.
    - Most common when you have a single resource that performs given function for your domain.
    - Route53 will respond to DNS queries that are only in the record set.
    - No Intelligence is built into the response.
  + Weighted
    - Let you split traffic based on different weights defined.
    - 1 AZ can be set to 90%, and another can be set to 10% for example.
  + Latency
    - Allows you to route your traffic based on the lowest network latency for your end user. (Which region will give them the fastest response time).
    - Create a latency resource record set in each region that hosts your website.
    - When Route53 receives a query for your site, it selects the latency resource for the region that gives the user the lowest latency.
  + Fail-over
    - Used when you want to create an active/passive set up.
    - Route53 will monitor the health of your primary site using a health check.
    - Health check monitors the health of your endpoints.
  + Geo-location
    - Lets you choose where your traffic will be sent based on the geographic location of your users.
    - Good if you want all queries from Europe to be routed to a fleet of EC2 instances in one of the EU regions.
    - Servers in these locations could have all prices and language set to EU standards for example.

| **Resource or Operation** | **Default Limit** |
| --- | --- |
| Hosted zones: | 500 |
| Domains: | 50 |
| Resource record sets per hosted zone: | 10,000 |
| Reusable delegation sets: | 100 |
| Hosted zones that can use the same reusable delegation set: | 100 |
| Amazon VPCs that you can associate with a private hosted zone: | 100 |
| Health checks: | 50 |
| Traffic policies: | 50 |
| Policy records: | 5 |