**Route53**

Q. How does Amazon Route 53 provide high availability and low latency?

Route 53 is built using AWS’s highly available and reliable infrastructure. The globally distributed nature of our DNS servers helps ensure a consistent ability to route your end users to your application by circumventing any internet or network related issues. Route 53 is designed to provide the level of dependability required by important applications. Using a global anycast network of DNS servers around the world, Route 53 is designed to automatically answer queries from the optimal location depending on network conditions. As a result, the service offers low query latency for your end users.

Q. What is the difference between a Domain and a Hosted Zone?

A domain is a general DNS concept. Domain names are easily recognizable names for numerically addressed Internet resources. For example, amazon.com is a domain. A hosted zone is an Amazon Route 53 concept. A hosted zone is analogous to a traditional DNS zone file; it represents a collection of records that can be managed together, belonging to a single parent domain name. All resource record sets within a hosted zone must have the hosted zone’s domain name as a suffix. For example, the amazon.com hosted zone may contain records named www.amazon.com, and www.aws.amazon.com, but not a record named www.amazon.ca. You can use the Route 53 Management Console or API to create, inspect, modify, and delete hosted zones. You can also use the Management Console or API to register new domain names and transfer existing domain names into Route 53’s management.

Q. When is my hosted zone charged?

Hosted zones are billed once when they are created and then on the first day of each month.

Q. I have subscribed for Amazon Route 53 but when I try to use the service it says "The AWS Access Key ID needs a subscription for the service."

When you sign up for a new AWS service, it can take up to 24 hours in some cases to complete activation, during which time you cannot sign up for the service again. If you've been waiting longer than 24 hours without receiving an email confirming activation, this could indicate a problem with your account or the authorization of your payment details. Please contact [AWS Customer Service](https://aws.amazon.com/contact-us/) for help.

Q. Does Amazon Route 53 provide query logging capability?

You can configure Amazon Route 53 to log information about the queries that Amazon Route 53 receives including date-time stamp, domain name, query type, location etc.  When you configure query logging, Amazon Route 53 starts to send logs to CloudWatch Logs. You use CloudWatch Logs tools to access the query logs

Q. Does Amazon Route 53 use an anycast network?

Yes. Anycast is a networking and routing technology that helps your end users’ DNS queries get answered from the optimal Route 53 location given network conditions. As a result, your users get high availability and improved performance with Route 53.

Q. Can I use 'Alias' records with my sub-domains?

Yes. You can also use Alias records to map your sub-domains (www.example.com, pictures.example.com, etc.) to your ELB load balancers, CloudFront distributions, or S3 website buckets.

Q. Can I see a history of my changes and other operations on my Route 53 resources?

Yes, via AWS CloudTrail you can record and log the API call history for Route 53. Please reference the [CloudTrail product page](https://aws.amazon.com/cloudtrail/) to get started.

Q. Does DNS Failover support Elastic Load Balancers (ELBs) as endpoints?

Yes, you can configure DNS Failover for Elastic Load Balancers (ELBs). To enable DNS Failover for an ELB endpoint, create an Alias record pointing to the ELB and set the “Evaluate Target Health” parameter to true. Route 53 creates and manages the health checks for your ELB automatically. You do not need to create your own Route 53 health check of the ELB. You also do not need to associate your resource record set for the ELB with your own health check, because Route 53 automatically associates it with the health checks that Route 53 manages on your behalf. The ELB health check will also inherit the health of your backend instances behind that ELB. For more details on using DNS Failover with ELB endpoints,

Changes to Name Servers may not take effect for up to 48 hours due to the DNS record Time To Live (TTL) values.

There are two types of zones:

* Public host zone – determines how traffic is routed on the Internet.
* Private hosted zone for VPC – determines how traffic is routed within VPC (resources are not accessible outside the VPC).

You can create multiple hosted zones with the same name and different records.

For private hosted zones you must set the following VPC settings to “true”:

* enableDnsHostname.
* enableDnsSupport.

You cannot extend Route 53 to on-premises instances.