

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

Amazon Route 53 provides three main functions:

- Domain registration
- Domain Name System (DNS) service
- Health checking

AWS Route 53 Routing Policy:

AWS Route 53 routing policy determines how AWS would respond to the DNS queries and provides multiple Routing policy options

- Simple Routing Policy
- Weighted Routing Policy
- Latency-based Routing (LBR) Policy
- Failover Routing Policy
- Geolocation Routing Policy

Simple Routing Policy:

If you choose the simple routing policy you can only have one record with multiple IP addresses. If you specify multiple values in a record, Route 53 returns all values to the user in a random order.

Weighted Routing Policy:

Weighted routing policy enables Route 53 to route traffic to different resources in specified proportions (weights) for e.g., 75% one server and 25% to the other during a pilot release

Weights can be assigned any number from 0 to 255

Weighted routing policy can be applied when there are multiple resources that perform the same function for e.g., web servers serving the same site

Weighted resource record sets let you associate multiple resources with a single DNS name

Latency-based Routing (LBR) Policy:

Latency-based Routing Policy enables Route 53 to respond to the DNS query based on which data center gives the user the lowest network latency

Latency-based routing policy can be used when there are multiple resources performing the same function and Route 53 needs to be configured to respond to the DNS queries with the resources that provide the fastest response with lowest latency

Failover Routing Policy:

Failover routing policy allows active-passive failover configuration, in which one resource takes all traffic when it's available and the other resource takes all traffic when the first resource isn't available.

Route 53 health checking agents will monitor each location/endpoint of the application to determine the availability.

Failover routing policy is applicable for Public hosted zones only

Geolocation Routing Policy:

Geolocation routing policy enables Route 53 to respond to DNS queries based on the geographic location of the users i.e. location from which the DNS queries originate

Common use cases include:

- localization of content and presenting some or all of the website in the users language
- restrict distribution of content to only the locations in which you have distribution rights.
- balancing load across endpoints in a predictable, easy-to-manage way, so that each user location is consistently routed to the same endpoint.
- Geolocation routing policy allows geographic locations to be specified by continent, country, or by state (only in US)

Two geolocation resource record sets that specify the same geographic location cannot be created