Amazon Route 53

It performs three main functions.

1. Register a domain if needed.
2. Helps to connect the browser with the website/web app when the user enters the domain name.
3. Checks health of resources by sending automated request over the internet to a resource.

Benefits

1. Highly reliable
2. Scalable (Automatically handles large queries without the user’s interaction)
3. Easy to use
4. Cost effective (U are paying only the amount of traffic/request u received, Hosted Zones etc)
5. Secure (Its integrated with AWS IAM)

Types of Routing Policy

1. Simple routing
   1. Route traffic/website to resource/web server
2. Failover routing
   1. If the server is down, it will route to healthy/different resource.
3. Geolocation routing
   1. Use when you want to route traffic based on the location of your users.
   2. It localized the content.
   3. Route based on continent/contry/state etc.
4. Geoproximity routing
   1. 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
   2. Option to route traffic or less to a given resource by config, known as bias
   3. Bias expands or shrinks the size of the geographic location form which traffic is routed to a resource.
5. Latency based routing
   1. Performance/Improves user experience from providing services from AWS region that provides lowest latency.
   2. To use this, we create Latency record in multiple AWS region.
6. Multivalue answer routing
   1. Configure route 53 to return multiple values in response to DNS queries.
   2. We can define 8 records/servers and AWS will do random routing/ Healthy servers.
7. Weighted routing
   1. Useful load balancing and testing new version software.
   2. You update the environment and redirect 10% to redirect to specifc server.

Key Features

1. Traffic flow
2. Domain registration
3. Health checks
4. Weighted round robin load balancing

Access Route 53

1. AWS management console
2. AWS SDKs
3. Route 53 API
4. AWS cli
5. AWS tools for windows power shell

DNS vs Route53

Route 53 is managed service for DNS

<https://www.youtube.com/watch?v=BtiS0QyiTK8&ab_channel=Simplilearn>