SaaS

By: Tamal Dey,
MCA, PESU

Introduction

- Amazon Route 53 is a highly available and scalable cloud Domain Name System (DNS) web service.
- It is designed to give developers and businesses an extremely reliable and cost effective way to route end users to Internet applications by translating names like www.example.com into the numeric IP addresses like 192.0.2.1 that computers use to connect to each other.
- Amazon Route 53 is fully compliant with IPv6 as well.
- Amazon Route 53 effectively connects user requests to infrastructure running in AWS – such as Amazon EC2 instances, Elastic Load Balancing load balancers, or Amazon S3 buckets – and can also be used to route users to infrastructure outside of AWS

1. Domain Registration

- **domain name:** The name, such as example.com, that a user types in the address bar of a web browser to access a website or a web application. Start by registering a domain name.
- **domain registrar:** A company that is accredited by ICANN (Internet Corporation for Assigned Names and Numbers) to process domain registrations for specific top-level domains (TLDs).
- **domain registry:** A company that owns the right to sell domains that have a specific top-level domain. For example, VeriSign is the registry that owns the right to sell domains that have a .com TLD.

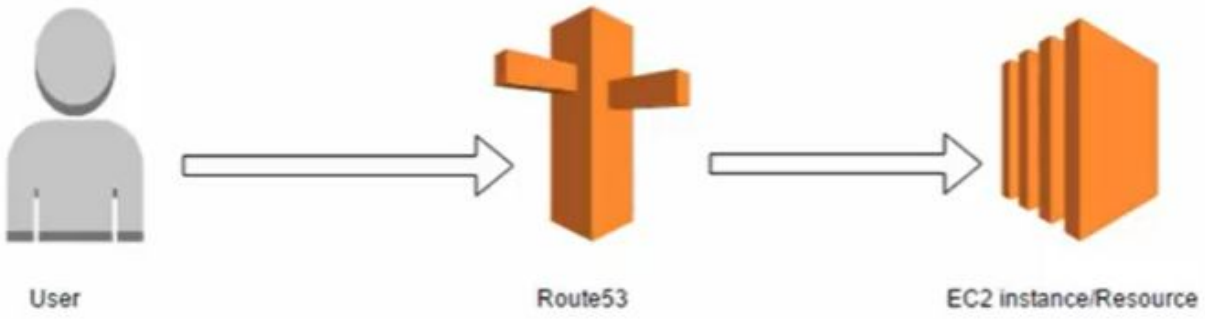
Concepts

- **geographic top-level domains:** These TLDs are associated with geographic areas such as countries or cities.
- **alias record:** A type of record that you can create with Amazon Route 53 to route traffic to AWS resources such as Amazon CloudFront distributions and Amazon S3 buckets.
- **name servers:** Servers in the Domain Name System (DNS) that help to translate domain names into the IP addresses that computers use to communicate with one another.
- **record (DNS record):** An object in a hosted zone that you use to define how you want to route traffic for the domain or a subdomain.

Types of routing policy

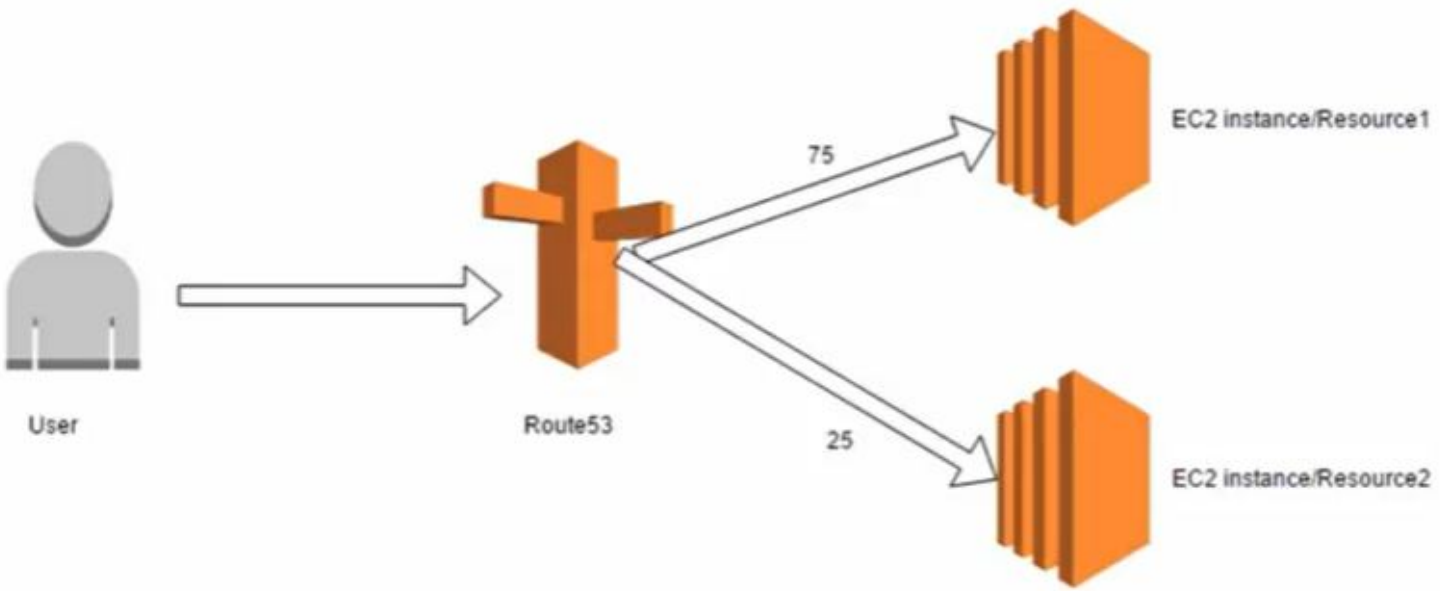
- **Simple routing policy** – Use to route internet traffic to a single resource that performs a given function for your domain, for example, a web server that serves content for the example.com website.
- **Weighted routing policy** – Use to route traffic to multiple resources in proportions that you specify.
- **Latency routing policy** – Use when you have resources in multiple locations and you want to route traffic to the resource that provides the best latency.
- **Failover routing policy** – Use when you want to configure active-passive failover.
- **Geolocation routing policy** – Use when you want to route internet traffic to your resources based on the location of your users.

Simple Routing Policy



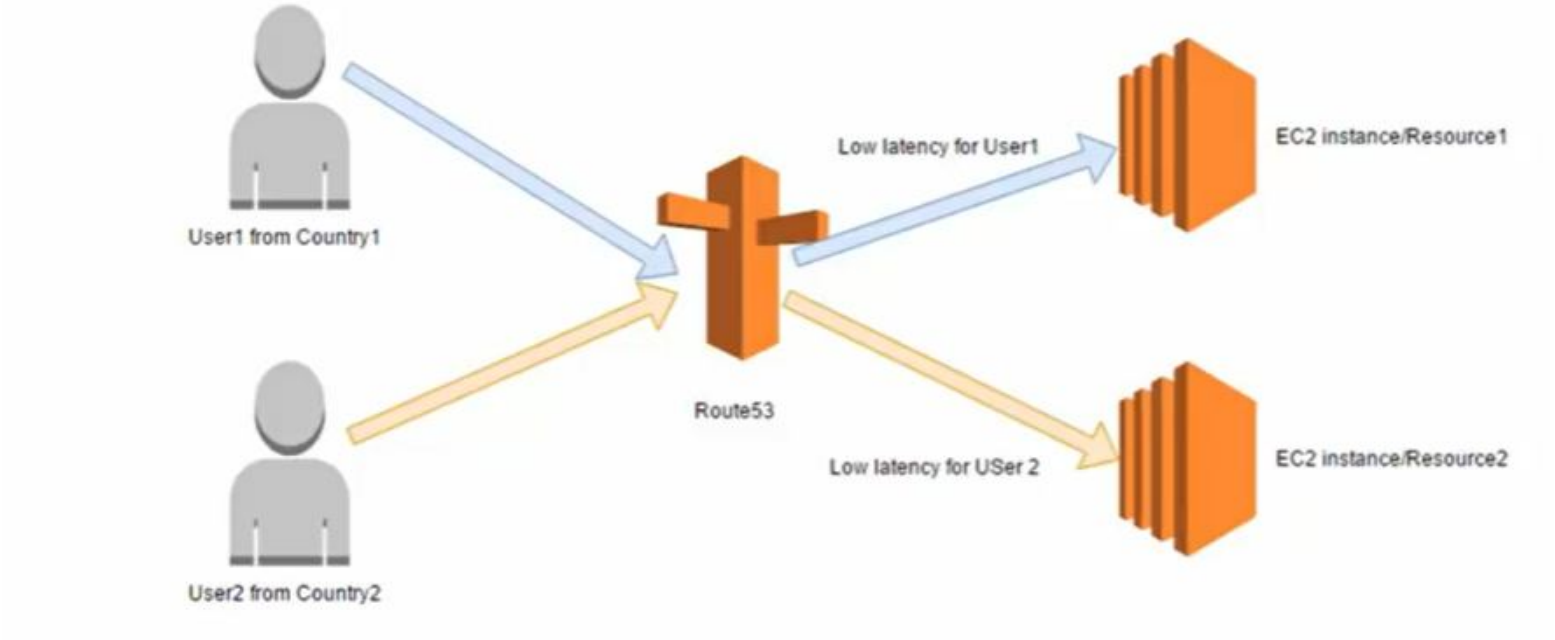
- Use to route internet traffic to a single resource that performs a given function for your domain, for example, a web server that serves content for the example.com website.

Weighted Routing Policy



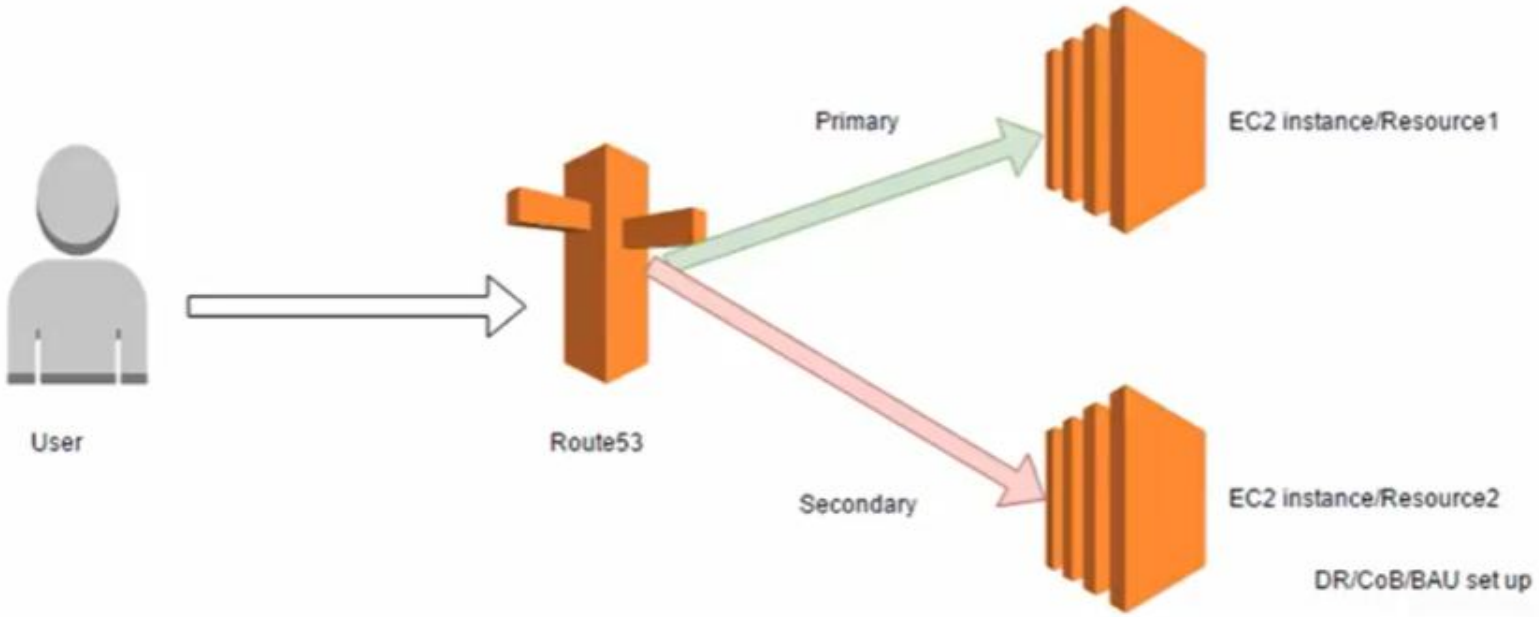
- Use to route traffic to multiple resources in proportions that you specify. E.g. 1 Quarter vs 3 Quarter to instance service

Latency Routing Policy



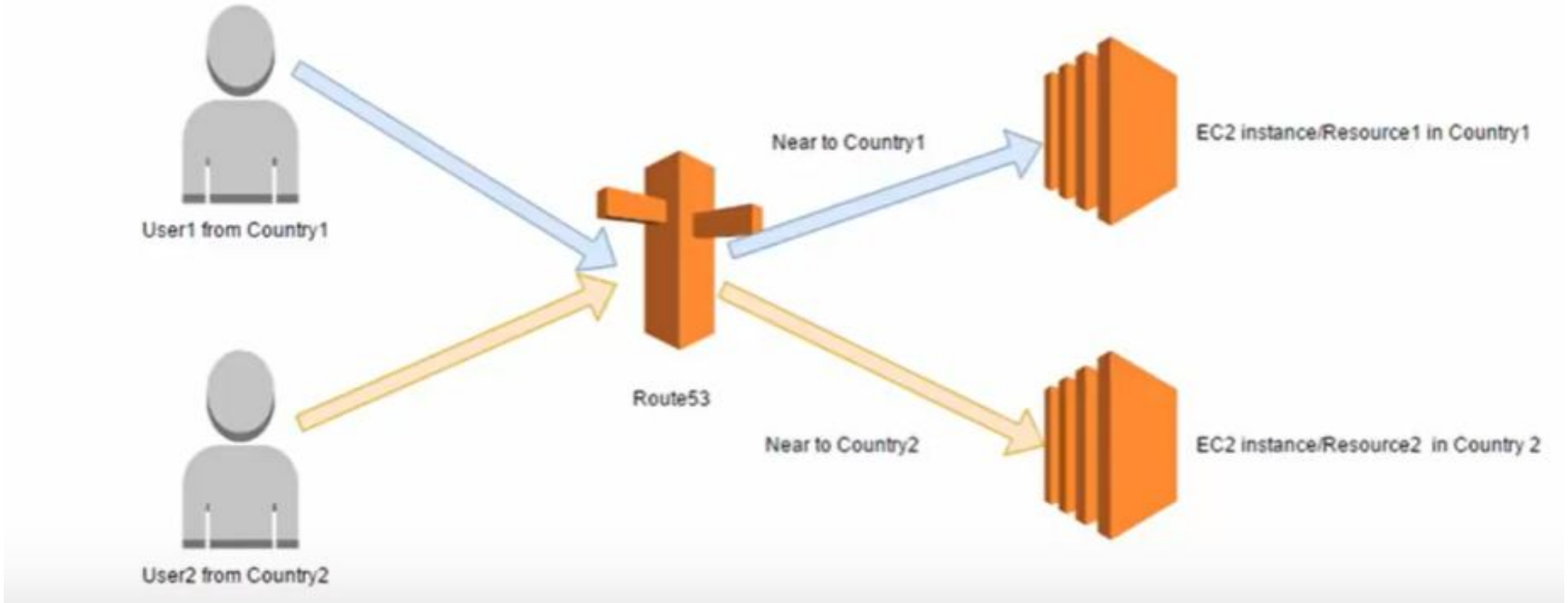
- Use when you have resources in multiple locations and you want to route traffic to the resource that provides the best latency.

Failover Routing Policy



- Use when you want to configure active-passive failover.

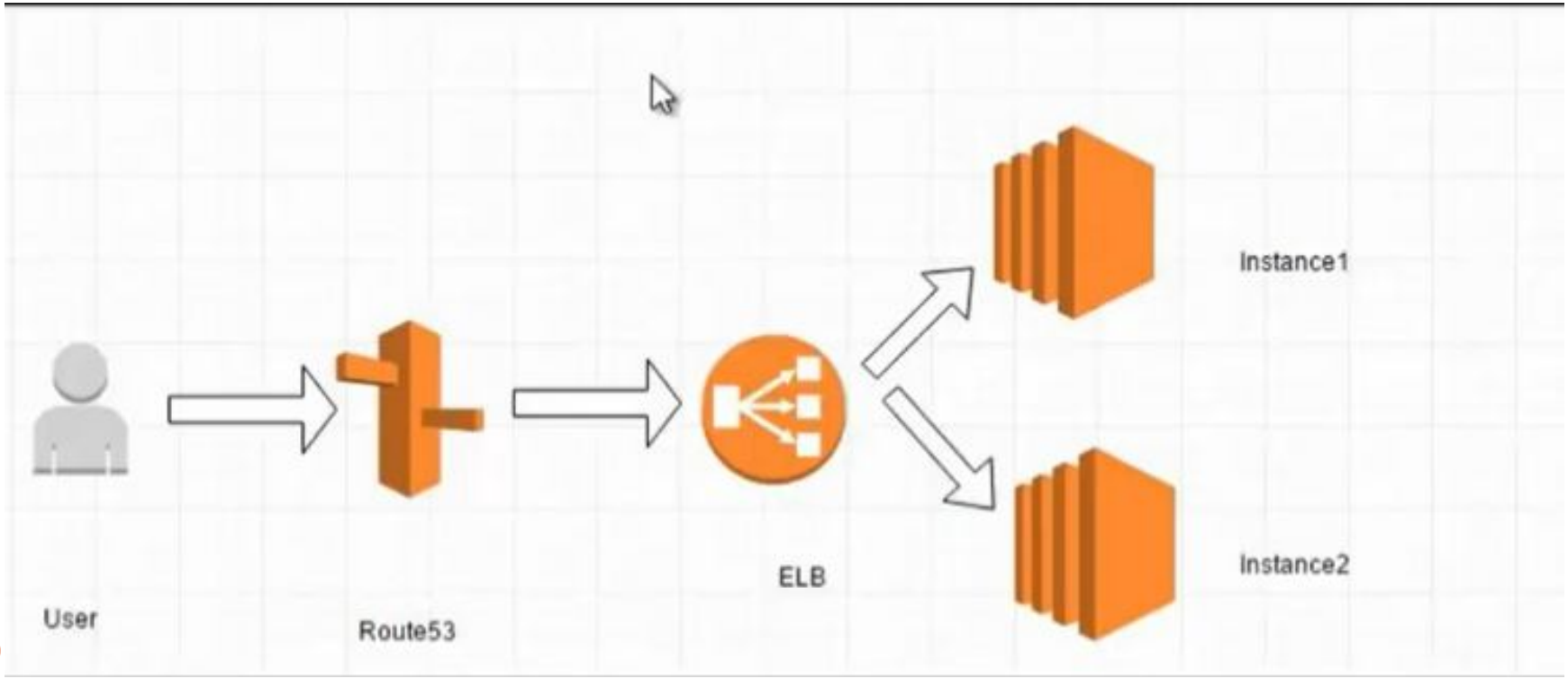
Geolocation Routing Policy



- Use when you want to route internet traffic to your resources based on the location of your users.

Steps of Route53

1. Register Domain Name
2. Configure Instances to host your Application /Service
3. DNS Service equipped with routing policies /protocols



Reference

- https://docs.aws.amazon.com/route53/index.html
- https://www.youtube.com/watch?v=Kw0CA5Jlj2M
- https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/Welcome.html