



Agenda

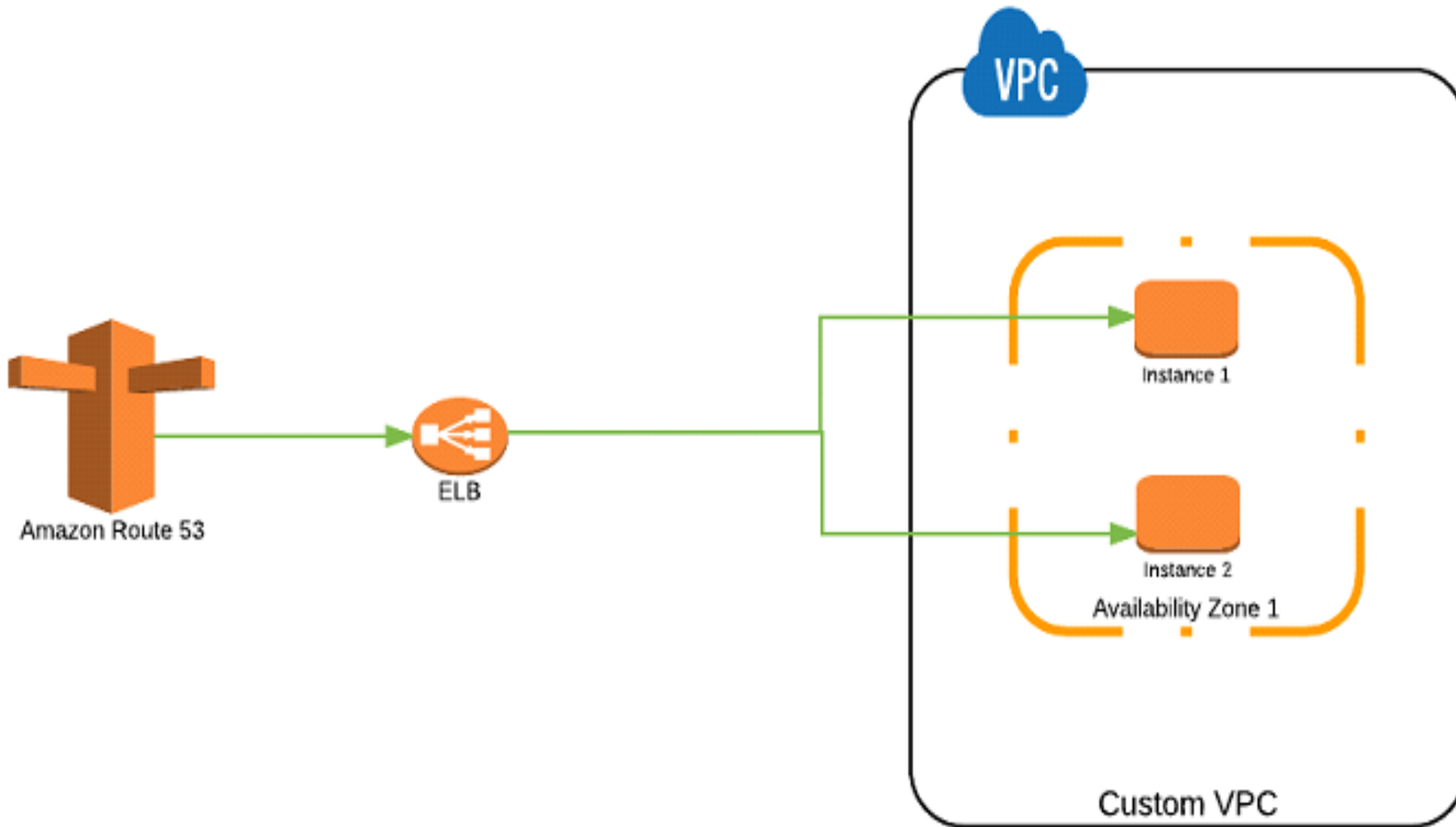
- ▶ **Purpose of Route 53**
- ▶ **How Route 53 helps in regional failures**
- ▶ **Routing policies**
 - ▶ **Simple**
 - ▶ **Weighted**
 - ▶ **Latency**
 - ▶ **Failover**
 - ▶ **Geo-location**

Domain Name

- ▶ **Top Level Domain:** The last word in a domain name represents the "Top level domain"
- ▶ Eg: .com
- ▶ **Second Level Domain:** The second last word in a domain name represent the "Second level domain name"
- ▶ Eg: .gov.in
- ▶ .edu.in

Amazon Route-53

- ▶ Amazon Route 53 provides a highly available and scalable cloud Domain Name System (DNS) web services.
- ▶ Amazon route 53 is designed to provide a reliable and cost-effective way to route users to internet applications. It translates URLs like www.example.com into the numeric IP addresses that computers use to connect to each other, such as 111.12.23.0
- ▶ Amazon Router 53 connects user requests to infrastructure that is running in AWS. Examples of such infrastructure are Amazon Elastic compute Cloud (Amazon Ec2) instances, ELB load Balancers, or Amazon Simple Storage Services (S3) Buckets.



- ▶ You can use Amazon Route 53 to configure DNS health checks. In this way, it can route traffic to healthy endpoints, or independently monitor.
- ▶ Amazon Route 53 enables you to manage traffic globally through various routing types, including latency-based routing, geoproximity or geolocation-based routing, and weighted round robin. - These routing types can be combined with DNS failover to enable a variety of low-latency, fault-tolerant architectures.
- ▶ - Amazon Route 53 also offers domain name registration. - You can purchase and manage domain names, such as example.com, and Amazon Route 53 will automatically configure the DNS settings for your Domain.

Amazon Route 53 supports these seven routing policies:

- ▶ Simple routing policy
- ▶ Weighted routing policy
- ▶ Geolocation
- ▶ Latency
- ▶ Failover
- ▶ Multi-value answer
- ▶ IP- Based

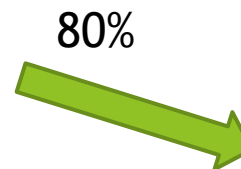
- **Simple routing policy:** Use for a single resource that performs a given function for your domain—for example, a web server that serves content for the example.com website.



- ▶ **Weighted routing policy:** Use to route traffic to multiple resources in proportions that you specify.
- ▶ Eg: 20% of your traffic to go to ap-south-1
- ▶ 80% of your traffic to go to ap-southeast-1



Route53



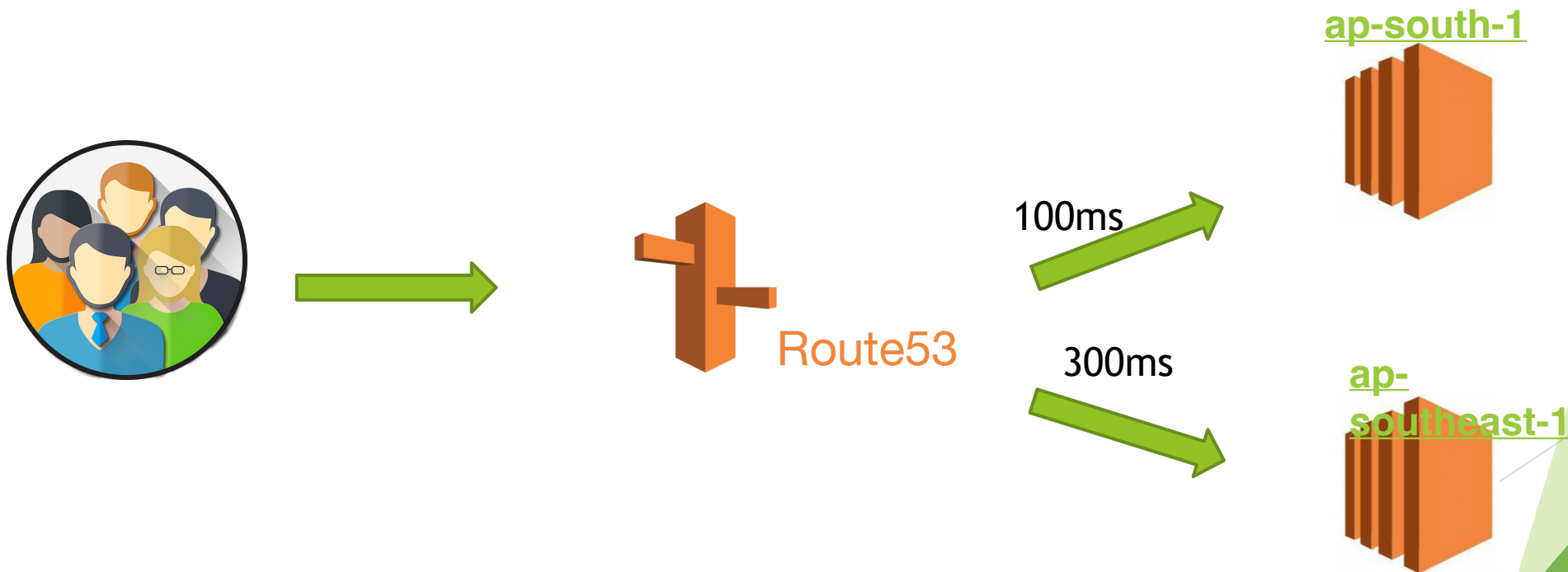
ap-south-1



ap-southeast-1



- **Latency routing policy:** Use when you have resources in multiple AWS Regions and you want to route traffic to the Region that provides the lowest latency.



- ▶ **Geolocation routing policy:** Use when you want to route traffic based on the location of your users.
- ▶ Eg: you might want all queries from Europe to be routed to a fleet of EC2 instances that are specially configured for your European customers. These servers may have the local language of your European customers and all prices are displayed in Euros.



Route53



ap-south-1



ap-southeast-1



- **Failover routing policy:** Use when you want to configure active-passive failover.



Knowledge Check 1 / 4

- ▶ What is the primary function of Amazon Route-53?
- ▶ a) Securely store objects in the cloud
- ▶ b) Host and scale web application
- ▶ c) Register domain names and route internet traffic
- ▶ d) Provide on-demand compute capacity

Knowledge Check 1 / 4

- ▶ What is the primary function of Amazon Route-53?
- ▶ a) Securely store objects in the cloud
- ▶ b) Host and scale web application
- ▶ c) Register domain names and route internet traffic (correct)
- ▶ d) Provide on-demand compute capacity

Knowledge Check 2/4

- ▶ Which of the following is NOT a routing policy available in Amazon Route 53?
- ▶ a) Weighted
- ▶ b) Failover
- ▶ c) Geographic Latency
- ▶ d) Simple

Knowledge Check 2/4

- ▶ Which of the following is NOT a routing policy available in Amazon Route 53?
- ▶ a) Weighted
- ▶ b) Failover
- ▶ c) Geographic Latency (Correct)
- ▶ d) Simple

Knowledge Check 3/4

- ▶ What is the default TTL (Time-to-Live) value in Route 53 if no custom TTL is set for a DNS record?
- ▶ a) 60 seconds
- ▶ b) 300 seconds
- ▶ c) 0 seconds (no caching)
- ▶ d) 86400 seconds

Knowledge Check 3/4

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Knowledge Check 4/4

- ▶ Which feature of Route 53 allows it to automatically direct users to the lowest-latency AWS region?
- ▶ a) Geolocation routing
- ▶ b) Multi-value answer routing
- ▶ c) Latency-based routing
- ▶ d) Weighted routing

Knowledge Check 4/4

- ▶ Which feature of Route 53 allows it to automatically direct users to the lowest-latency AWS region?
- ▶ a) Geolocation routing
- ▶ b) Multi-value answer routing
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