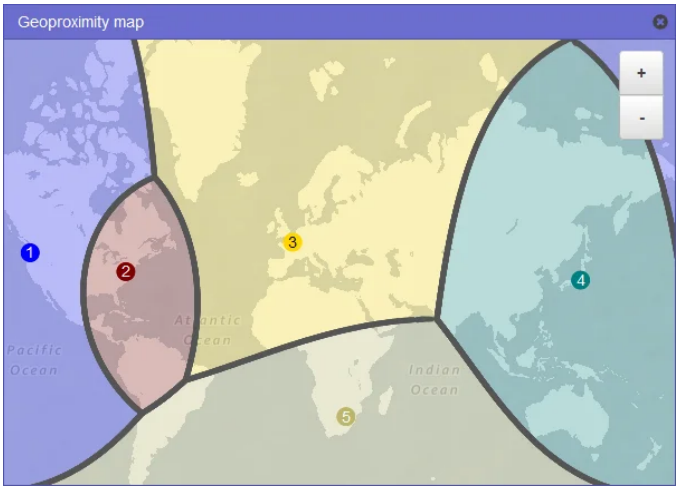
Geoproximity vs Geolocation Routing

Both Geoproximity and Geolocation routing policies allow us to direct traffic based on geographical presence, but they differ in many important ways. However, a more deep dive into both routing policies is necessary to understand those differences.

Geoproximity Routing Policy

A Geoproximity routing policy is used to route traffic based on the location of our organization's resources, and shift the flow of traffic using a geographical paradigm more suitable to us.This policy allows us to direct users to different servers, even if those servers might be further away, using something called a *bias*.



Geoproximity map dividing the world based on four AWS Regions (numbered 1 through 4) and a location in Johannesburg, South Africa that is specified by latitude and longitude (5).

A bias allows us to impose and assign a certain set of resources as the de-facto traffic route for requests from a well-defined geographical boundary.

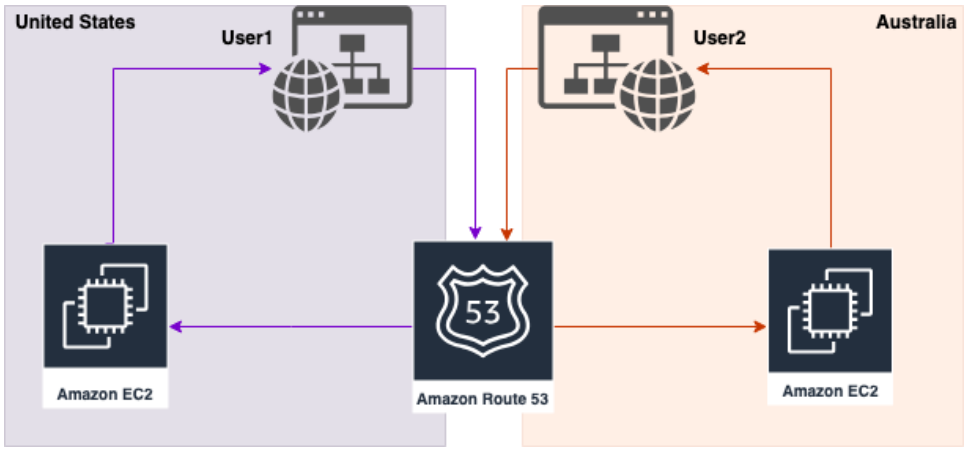
This is clearly illustrated in the diagram above where the world is divided into 5 areas, and any request originating within said area will be directed to its associated resource.

Geolocation Routing Policy

A Geolocation routing policy on the other hand, is used when when we wish to route traffic based on the location of our users. After all, many businesses these days have users all over the world, and it is natural for them to want to serve the appropriate content to those users as fast as possible. A geolocation routing policy allows you to allocate the resources that serve your traffic based on the location that users' DNS queries originate from.

Additionally, with geolocation routing, we can also localize the served content and restrict the distribution of specific content to only those locations where we are allowed to distribute, granting us the benefits of localization alongside the ability to adhere and comply with local rules and regulations.

For example, say, a streaming service like Netflix could have the international rights to an American movie and thus wants to prominently display it on its website in Australia, but not have the domestic rights to the same movie, and would have to serve something else in its stead for its users in America.



Example architecture for a Geolocation based application