



**NANYANG
TECHNOLOGICAL
UNIVERSITY**
SINGAPORE

Coaching - AWS Global Infrastructure

Cloud Infrastructure Engineering

**Nanyang Technological University
& Skills Union - 2022/2023**

Course Content

- Explore what the following are:
 - AWS Regions
 - AWS Availability Zones
 - AWS Edge Locations/ Points of Presence
 - AWS Data Centers

AWS Global Footprint



Find Out More

https://aws.amazon.com/about-aws/global-infrastructure/regions_az/ or

<https://infrastructure.aws/>

AWS Regions



AWS Regions

AWS has **Regions** all around the world

Naming convention follow for example **ap-southeast-1** (Singapore), **eu-central-2** (Zurich) and **ca-central-1** (Canada)

An AWS region is a **cluster of data centers**, containing 2 or more availability zones

Most AWS services are region-scoped

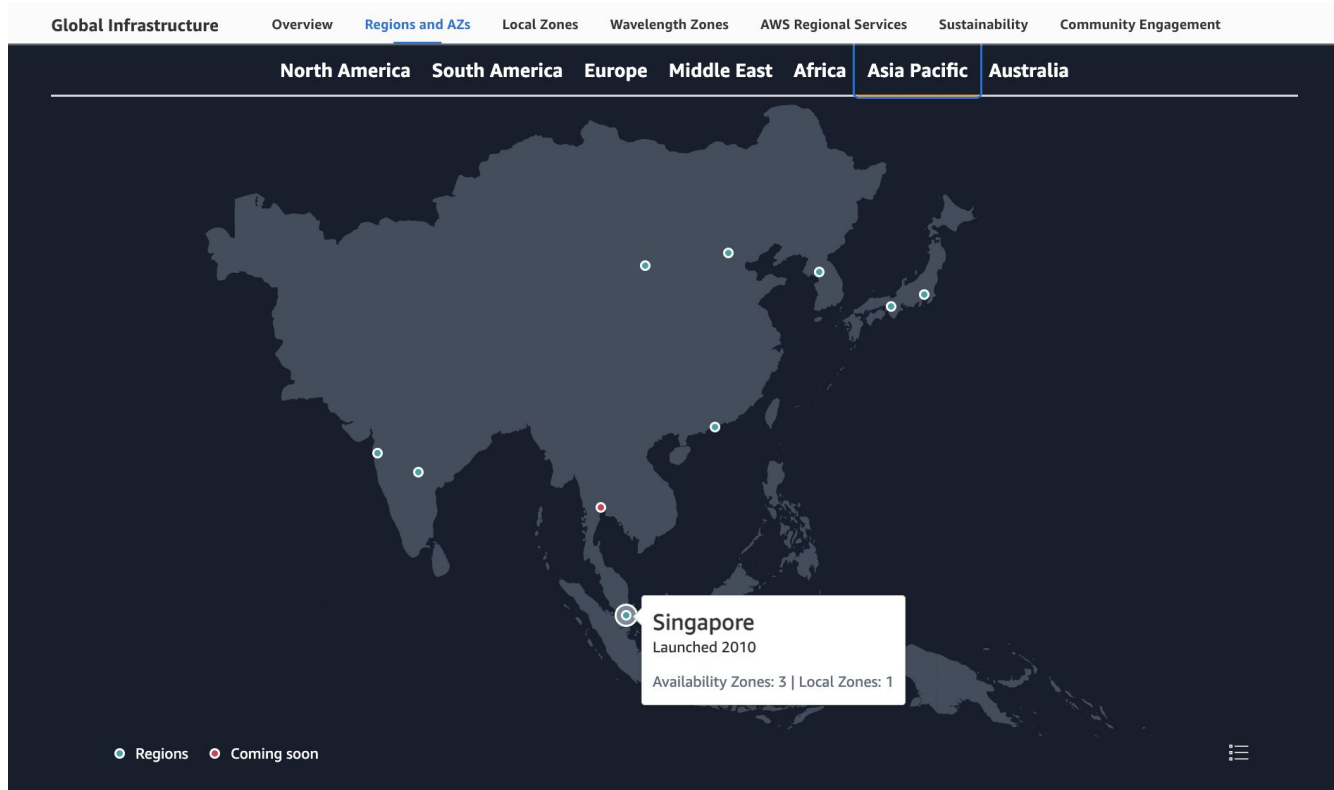
Choosing AWS Regions

Where should you deploy your new application?

Considerations:

1. **Compliance:** Can your data leave the region?
2. **Customer Footprint:** Where are your customers located?
3. **Pricing**
4. **Available Services:** Are the services you require present in that region?

AWS Availability Zones



AWS Availability Zones

Asia Pacific

Asia Pacific (Singapore) Region

Availability Zones: 3

Launched 2010

Asia Pacific (Tokyo) Region

Availability Zones: 4

Launched 2011

Asia Pacific (Seoul) Region

Availability Zones: 4

Launched 2016

Asia Pacific (Mumbai) Region

Availability Zones: 3

Launched 2016

Asia Pacific (Hong Kong) Region

Availability Zones: 3

Launched 2019

Asia Pacific (Osaka) Region

Availability Zones: 3

Launched 2021

Asia Pacific (Jakarta) Region

Availability Zones: 3

Launched 2021

AWS Asia Pacific (Hyderabad) Region

Availability Zones: 3

Launched 2022

Mainland China (Beijing) Region

Availability Zones: 3

[Learn more at www.amazonaws.cn](https://www.amazonaws.cn)

Mainland China (Ningxia) Region

Availability Zones: 3

[Learn more at www.amazonaws.cn](https://www.amazonaws.cn)



AWS Availability Zones

Each region has **many availability zones** (usually 3, min is 2, max is 6). Example:

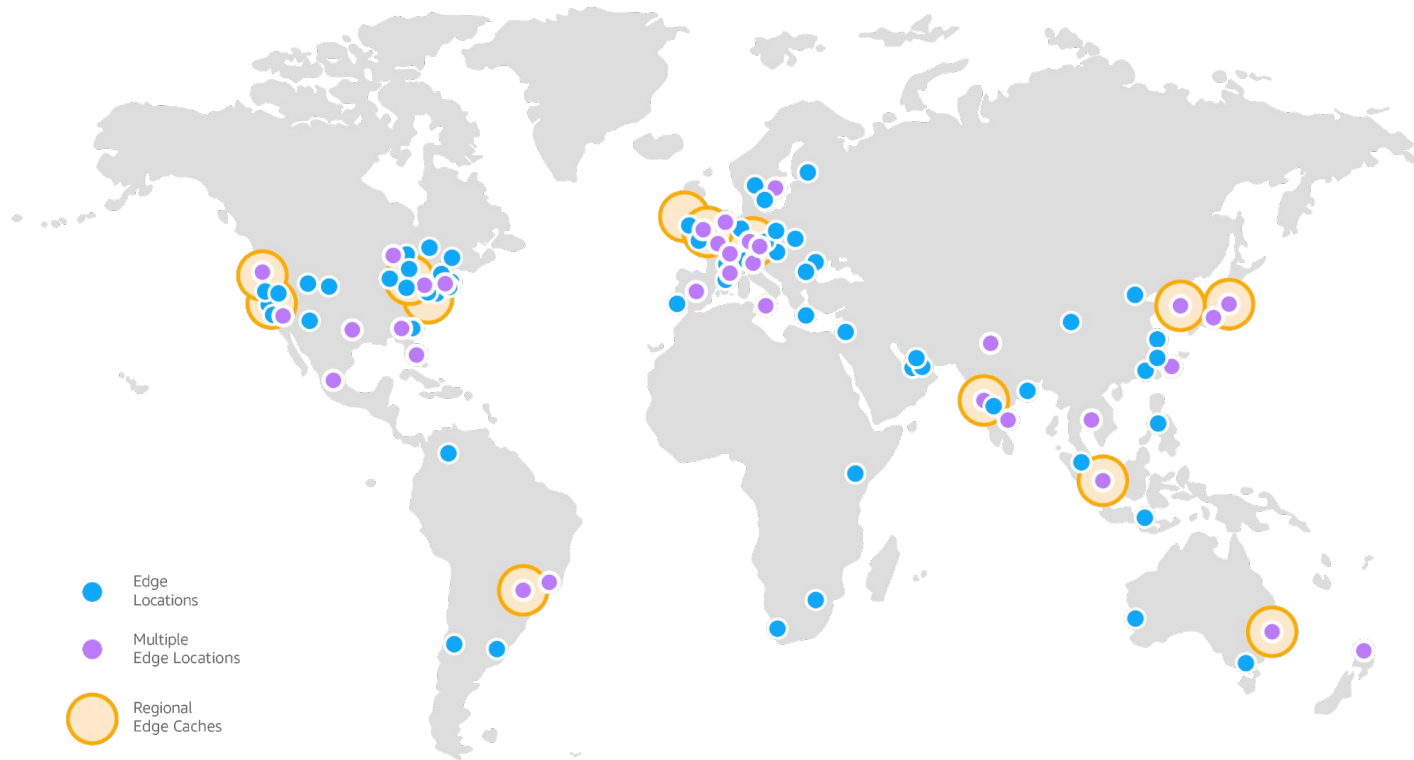
- ap-southeast-1a
- ap-southeast-1b
- ap-southeast-1c

Each availability zone (AZ) is **one or more discrete data centers with redundant power, networking, and connectivity**

They're separate from each other, so that they're isolated from disasters

They're connected with high bandwidth, ultra-low latency networking

AWS POP/ Edge Locations



AWS POP/ Edge Locations

Amazon has **450+ Points of Presence** and **13 regional edge caches** in **90+ cities** across **48 countries**.

Content is delivered to end users with lower latency

Related AWS Service: **AWS Cloudfront**

What's Next?

