Cloud Computing Advantages

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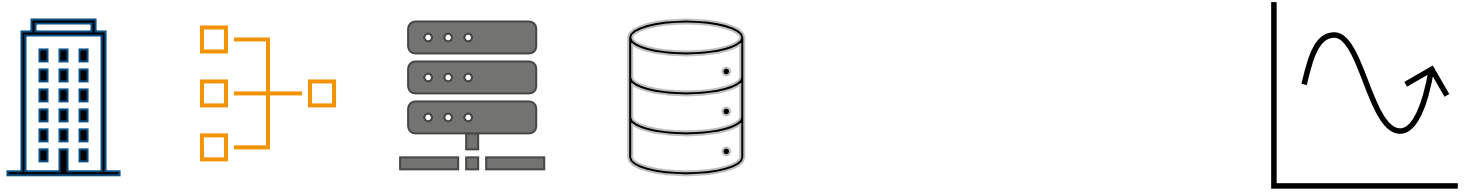
Cloud Wave LLC

#1 - Trade Capital Expense for Variable Expense

No need to purchase expensive capital equipment

Pay only for what you consume and how much you consume



Consumption Based Pricing

Fear of billing surprises

AWS Tools

- Detailed break-down of charges
- Budget based alerts
- Restrict specific services and resources

Is consumption-based model cheaper than buying your own?

#2 - Benefit from Massive Economies of Scale

Massive scale

Shared infrastructure used by thousands of customers

Better utilized

Lower pay-as-go prices

#3 - Stop Guessing about Capacity

Long-term planning results in over capacity or under capacity

Eliminate guessing on your infrastructure capacity needs

Match infrastructure for actual need

Scale up or down with only a few minutes notice

#4 - Increase Speed and Agility

New resources are only a click away

Developers can get resources in minutes instead of waiting for weeks

Cost to experiment is significantly lower

Hourly pricing model – try new products at very low cost

#5 - Stop spending money running and maintaining data centers

Avoid undifferentiated heavy lifting

Focus on projects that differentiate your business, not infrastructure

#6 - Go Global in Minutes

Deploy application close to customer for lower latency and compliance requirements

Better end user experience at minimal cost

AWS Global Infrastructure

Region

Availability Zone

Edge Location

Global Cloud Infrastructure | Regi

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

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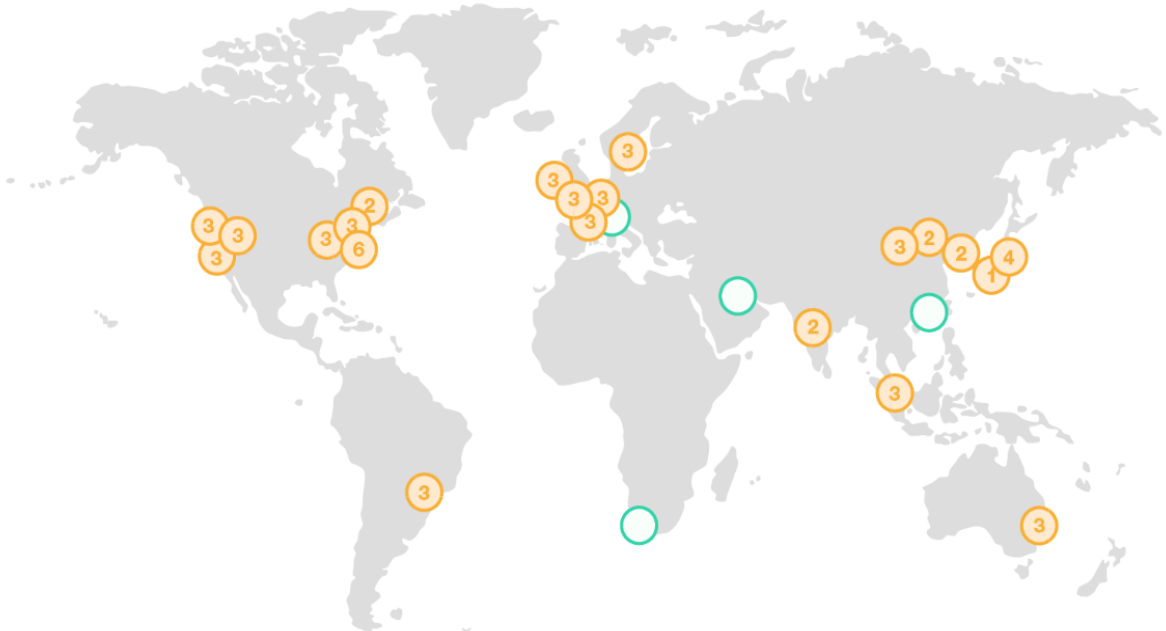
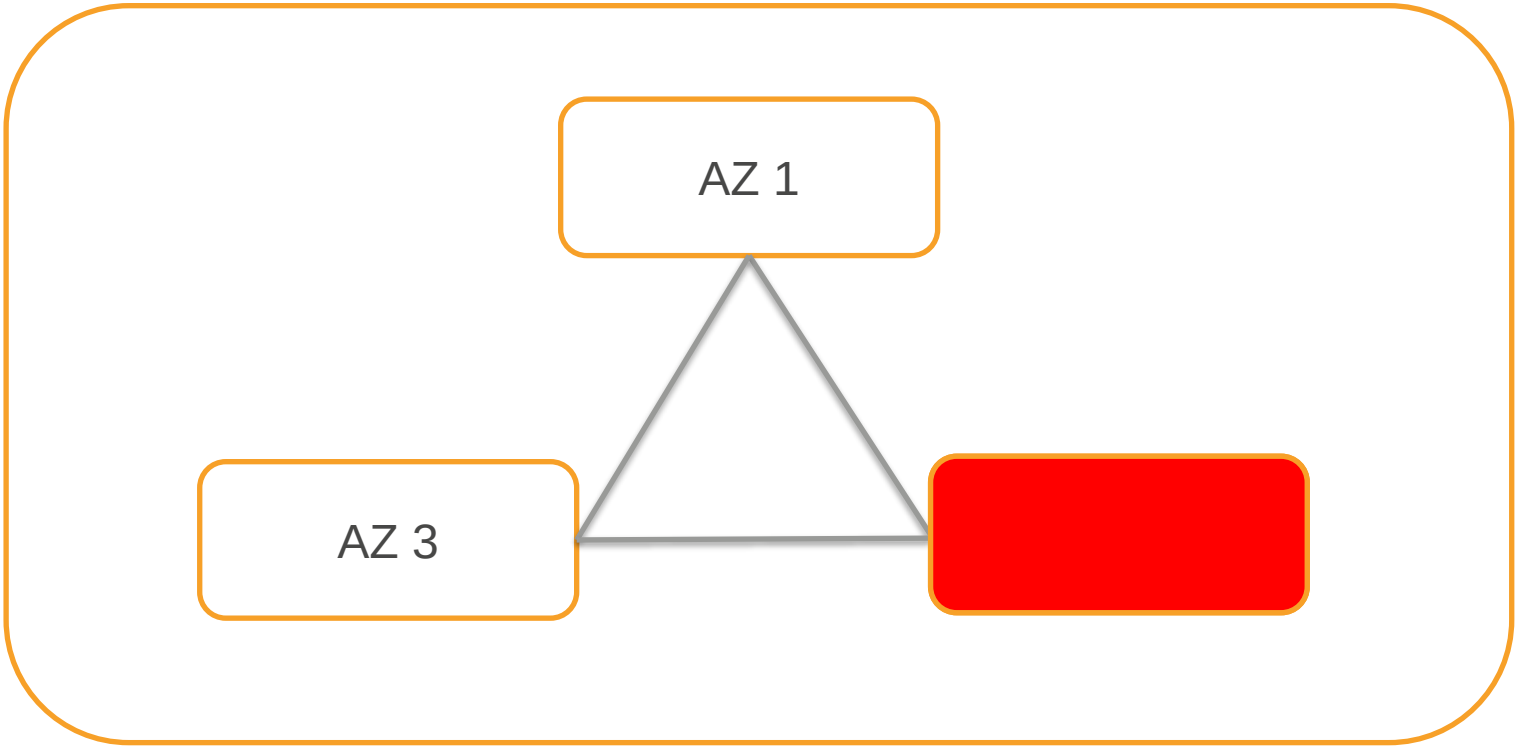
Global Infrastructure



Region



Application should be spread across two or more availability zones

Azure Outage Proves the Hard Way that Availability Zones are a Good Idea

https://www.datacenterknowledge.com/microsoft/azure-outage-proves-hard-way-availability-zones-are-good-idea

“Lightning during a powerful storm caused a voltage swell in the utility feeds powering one of the Azure data centers in San Antonio, Texas, that overwhelmed the facility’s surge suppressors, knocking out its cooling systems”

“A significant number of storage servers were damaged, as well as a small number of network devices and power units.”

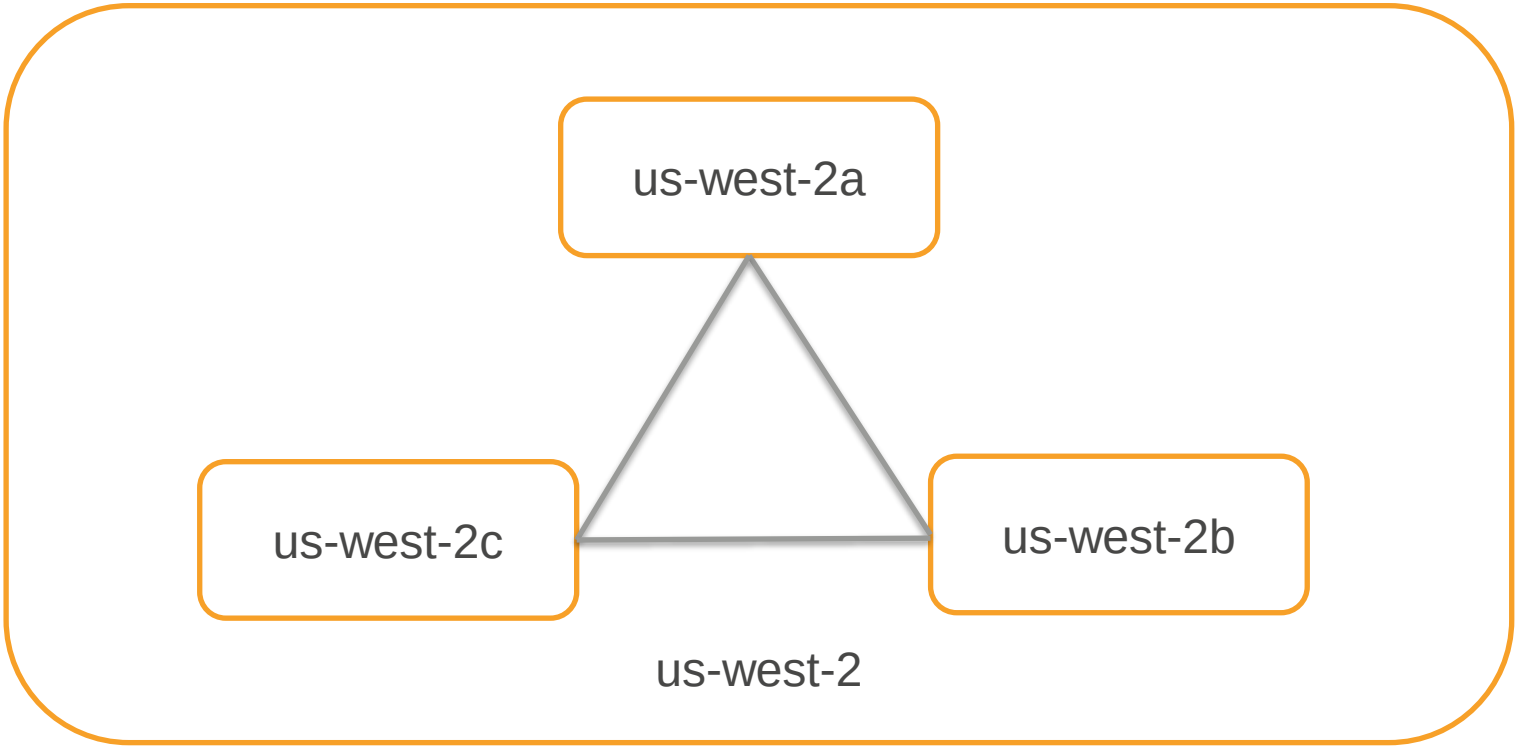
AWS Services and Multi-AZ

S3 maintains redundant copies across at least three AZs

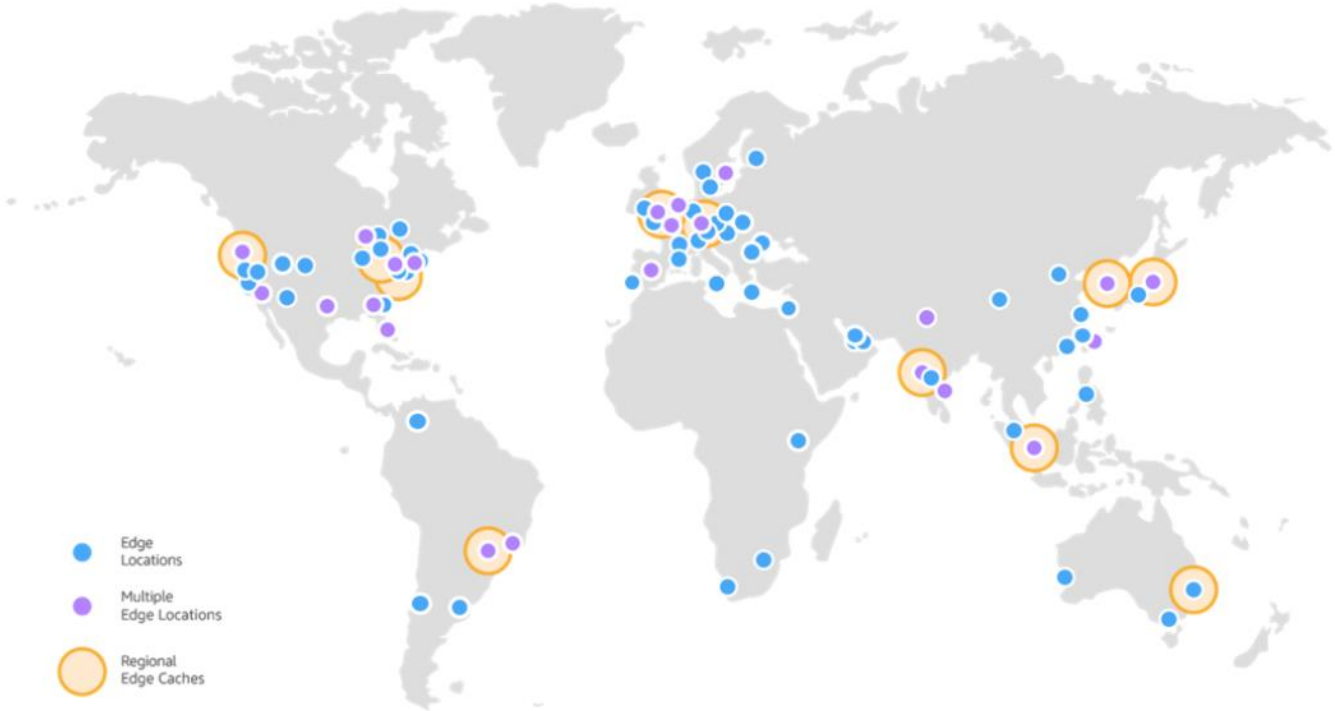
RDS in high availability mode maintains primary and standby in separate AZs

EC2 instance runs in a specific AZ. If AZ goes down, the instance is impacted

Oregon Region



Edge Locations



Source: https://aws.amazon.com/cloudfront/features/

Data Movement

AWS stores your data in a region that you choose

Data is not copied between regions – unless customer asks AWS to do so (including edge location)

Comply with data hosting requirement