CHECKLIST

Which AWS Region is Right for You?

Today, AWS has 26 regions and 84 Availability Zones (AZ). With all these choices, it can be difficult to decipher which region is best for your business, and most importantly, your users.

Choosing the wrong region can result in:

- ○ Lack of capacity
- ○ Hefty data transfer costs
- ○ Latency and performance issues
- ○ Ramifications for Disaster Recovery (DR) and Business Continuity (BC) plans

To prevent these issues, check out our quick checklist below to guide you through your AWS region selection process:

Latency and Performance

☐ To improve performance for your end users, consider selecting regions that are in close proximity to the majority of your users. Click **here** for a list of AWS regions.

☐ To get even closer to your end users, take advantage of **AWS Local Zones.**

☐ Consider using **Wavelength Zones** for improved connectivity for mobile users if you have significant numbers in regions where this service is available.

☐ To improve availability, determine which AZ is best for you. Think about how many AZs are available within the region you've selected and how many you need.

☐ To transfer data quickly, securely, and with low latency, use CDNs (Content Delivery Networks) wherever possible.

Capacity Management

If you are running large scale applications that demand thousands of instances during peak hours, you may need to rely on larger AWS regions such as N. Virginia, Ireland, or Oregon that have larger capacity. To see whether your application is suitable consider the following:

☐ Are you running large-scale applications on EC2 instances?

☐ Are the majority of your instances running during peak hours?

☐ Which AWS services are you using? Do they run in the region you've selected? Check **this list** to find out.

☐ What are your capacity needs for your AZs?

Costs

Instance types have different unit costs depending on the region. Furthermore, once you choose a region, it's difficult to shop around across regions to compare unit costs. It's better to check in advance the price in each region of the types of instances that you are planning to use. Start with these considerations:

- ☐ Which instance types do you use? (**list** of instance types)

- ☐ What is the cost of the instances you use in the region you've selected? Is it less expensive elsewhere? Compare prices **here**.

- ☐ What are the data transfer costs between the regions you've selected? Find out **here**.**

- ☐ How much do you spend on Inter-AZ traffic?

- ☐ Wherever possible, choose one of the largest regions. (Larger regions tend to be less expensive because AWS's pricing model works on an economy of scale, where larger regions have a lower TCO.)

** Note that if your customers are in US-East, AWS has created a special rate between N. Virginia and Ohio ($0.1/GB), the same price that is normally allocated for data transfers between AZs.

Optimize your DR and BC Plan

- ☐ To create a BC plan, evaluate how many AZs are needed. Make sure your AZs are located in the same region and in close proximity to one another in order to take advantage of multi-AZ deployment.

- ☐ To ensure availability when one region experiences downtime, consider using a single AZ in a Multi-Region Deployment.

- ☐ Make sure to run different workloads and backups in various regions so if one region goes down, you can continue to serve your customers from a different region.

- ☐ Plan and build your solution so it will be agile enough to move with minimum effort required.

For more information on DR and BR strategies, check out **this article.**

Additional Tips

1. **Design with cost in-mind.** Always compare two options before deploying long-term. Make sure to use **AWS documentation** to validate your assumptions.

2. **Map the managed services and features you will require** and make sure that they are all supported in the designated region you choose.

3. When you are not fully sure, **consult with AWS representatives.**

For more information on each of the considerations listed in this checklist, see the blog **How to Choose the Right AWS Region.**