**Benefits of the AWS Cloud**

Operating in the AWS Cloud offers many benefits over computing in on-premises or hybrid environments.

In this section, you will learn about six advantages of cloud computing:

* Trade upfront expense for variable expense.
* Benefit from massive economies of scale.
* Stop guessing capacity.
* Increase speed and agility.
* Stop spending money running and maintaining data centers.
* Go global in minutes.

**Trade upfront expense for variable expense.**

Upfront expenses include data centers, physical servers, and other resources that you would need to invest in before using computing resources.

Instead of investing heavily in data centers and servers before you know how you’re going to use them, you can pay only when you consume computing resources.

**Benefit from massive economies of scale.**

By using cloud computing, you can achieve a lower variable cost than you can get on your own.

Because usage from hundreds of thousands of customers aggregates in the cloud, providers such as AWS can achieve higher economies of scale. Economies of scale translate into lower pay-as-you-go prices.

**Stop guessing capacity.**

With cloud computing, you don’t have to predict how much infrastructure capacity you will need before deploying an application.

For example, you can launch Amazon Elastic Compute Cloud (Amazon EC2) instances when needed and pay only for the compute time you use. Instead of paying for resources that are unused or dealing with limited capacity, you can access only the capacity that you need, and scale in or out in response to demand.

**Increase speed and agility.**

The flexibility of cloud computing makes it easier for you to develop and deploy applications.

This flexibility also provides your development teams with more time to experiment and innovate.

**Stop spending money running and maintaining data centers.**

Cloud computing in data centers often requires you to spend more money and time managing infrastructure and servers.

A benefit of cloud computing is the ability to focus less on these tasks and more on your applications and customers.

**Go global in minutes.**

The AWS Cloud global footprint enables you to quickly deploy applications to customers around the world, while providing them with low latency.