

CHAPTER ONE

Getting Started with Cloud Concepts

Welcome to Chapter 1. In this chapter, you learn what Cloud computing can offer your business. Specifically, this chapter covers the following topics:

- Benefits of Cloud computing
- AWS Cloud economics
- The total cost of ownership
- Reducing costs by moving to the Cloud
- Cloud architecture design principles
- The Well-Architected Framework

By the end of this chapter, you will be able to define the Cloud and describe its many uses. Let's get started!

What Is Cloud Computing?

Imagine you're planning a wonderful camping trip with your friends. You're into the concept of "roughing it," but you have your limits! Do you really need to sew your own sleeping bags, craft your own tents, drag some rocks around to make a fire pit, and rub two sticks together to make a campfire? Probably not! Instead, you might take a trip to your local camping supply store and buy a pup tent kit, a mess kit, and one of those cool camp cook stoves with a little butane fuel container. Once you're geared up, you can free your attention to enjoying the great outdoors in the company of your friends!



Cloud computing is a little like that visit to the store to source your gear, rather than building it all yourself. Instead of managing your own servers in your own office, you can use **the Cloud**, which is a set of services available to you to conduct your business's needs over the Internet. You can store files in the Cloud, manage data in various regions, connect your systems together, and do much more by using Cloud computing. You probably use it every day without even realizing it.

Whenever you open a mobile app to reserve a spot at your local campground, you are using the Cloud to make the connection between the device you hold in your hand, the Internet, and the campground's system for taking your reservation. This is the difference between the client (your phone and its browser or app) and the server (the machine that exists somewhere else and handles your requests).

The Cloud—the machine or “server” that exists in a data center somewhere not too far from you—takes care of the transactions needed to make your **holiday** perfect, including gathering your personal information, storing it safely and

privately, notifying the campground to reserve a designated spot, and transferring your payment from your bank account to theirs. It's such a seamless experience that people hardly think about it nowadays, but the technology behind it is worth a deep dive.



Cloud computing brings with it a lot of benefits that can help any business or individual succeed in achieving their goals. It has six specific benefits that are worth understanding well. Diving deep

into these topics will guide you as you start your journey to becoming a Cloud practitioner. So let's go!

Global Reach

If you are managing your own servers, including the hardware, software, and networking capabilities that you need to keep your business systems running, imagine how complex your task becomes when you need to ~~be able to~~ reach customers in the far corners of the Earth. Cloud computing offers the ability to “go global” as quickly as you like.

The idea of going global isn't so much that your systems, now ported to the cloud, aren't already accessible in many different parts of the Internet-connected world. The benefit to Cloud computing on AWS is that you can do it *well*. By deploying your business systems globally, their *latency* is reduced.

NOTE: *Latency* is the amount of time needed for information to travel across a network. If an application is deployed closer to the user, it takes less time to arrive.

Going global allows folks to deliver a fast experience to their customers worldwide.

