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What is Azure?

5 minutes

Azure is Microsoft's cloud computing platform. Azure is a continually expanding set of cloud services that help your organization meet your current and future business challenges. Azure gives you the freedom to build, manage, and deploy applications on a massive global network using your favorite tools and frameworks.

How does Azure work?

Before we go further, let's briefly define cloud computing.





What is cloud computing?

Cloud computing is the delivery of computing services over the Internet using a **pay-as-you-go** pricing model. Put another way; it's a way to rent compute power and storage from someone else's data center.

Instead of maintaining CPUs and storage in your data center, you rent them for the time that you need them. The cloud provider takes care of maintaining the underlying infrastructure for you.

You can treat cloud resources like you would your resources in your own data center. When you're done using them, you give them back. You're billed only for what you use.

While this approach is great, the real value of the cloud is that it enables you to quickly solve your toughest business challenges and bring cutting edge solutions to your users.



Why should I move to the cloud?

The cloud helps you move faster and innovate in ways that were once nearly impossible.

In our ever-changing digital world, two trends emerge:

- Teams are delivering new features to their users at record speeds.
- End users expect an increasingly rich and immersive experience with their devices and with software.

Software releases were once scheduled in terms of months or even years. Today, teams are releasing features in smaller batches. Releases are now often scheduled in terms of days or weeks. Some teams even deliver software updates continuously—sometimes with multiple releases within the same day.

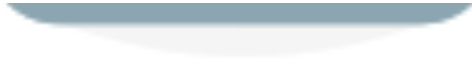
Think of all the ways you interact with devices that you couldn't do just a few years ago. Many devices can recognize your face and respond to voice commands. Augmented reality changes the way you interact with the physical world. Household appliances are even beginning to act intelligently. These technologies are just a few examples, many of which are powered by the cloud.

To power your services and deliver innovative and novel user experiences more quickly, the cloud provides on-demand access to:

- A nearly limitless pool of raw compute, storage, and networking components.
- Speech recognition and other cognitive services that help make your application stand out from the crowd.
- Analytics services that enable you to make sense of telemetry data coming back from your software and devices.

Let's see how Azure fits in with cloud computing.





What can I do on Azure?

Azure provides over 100 services that enable you to do everything from running your existing applications on virtual machines to exploring new software paradigms such as intelligent bots and mixed reality.

Many teams start exploring the cloud by moving their existing applications to virtual machines that run in Azure. While migrating your existing apps to virtual machines is a good start, the cloud is more than just "a different place to run your virtual machines".

For example, Azure provides AI and machine-learning services that can naturally communicate with your users through vision, hearing, and speech. It also provides storage solutions that dynamically grow to accommodate massive amounts of data. Azure services enable solutions that are not feasible without the power of the cloud.

Next unit: Tour of Azure services

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