

Beginner's Guide to CLOUD COMPUTING

WHAT IS THE CLOUD?

The **cloud**, or **cloud computing**, is a term that refers to the use of a network of remote (not on-premise) servers hosted on the internet to store, manage and process data and to run applications. Today, many services, like a company's payroll program for example, are accessed using the cloud.

ON-PREMISE COMPUTING vs CLOUD COMPUTING

In the past, data and services were available only on a company's own servers and computers. That meant that all the cost and maintenance associated with that - hardware, software, IT staff, etc. - was the responsibility of the company. Today you have the choice of putting many of your services and data in the cloud, with these and other benefits:

CAPACITY

ON-PREMISE: With a traditional storage and computing system you have a set amount of capacity - no more, no less. If your business has a sudden surge of work to get done, you may not have the capacity to handle it.

CLOUD: The cloud makes it possible to have endless capacity, and many subscriptions allow you to ramp up when you need more, and decrease when you don't.

REMOTE ACCESS

ON-PREMISE: Traditional systems require people who want to use internal systems (like accounting or sales systems) to access them from the central location.

CLOUD: Cloud computing puts access in the hands of everyone you want to have it and on devices of all types - phone, tablet, laptop or desktop. The best part? It's available 24/7/365!

COST

ON-PREMISE: Traditional systems require you to purchase and maintain servers and troubleshoot any issues that occur. You also need to do regular software updates and pay for licensing.

CLOUD: No hardware, no maintenance, no upgrades! With cloud computing, your provider takes on the responsibilities as part of your monthly subscription.

BACKUP

ON-PREMISE: Traditional internal IT departments are solely responsible for backing up data consistently and accurately. In the event of a natural disaster you could still lose it all if you have no off-site redundancies.

CLOUD: Data is remotely stored in the cloud provider's data center - some of the most monitored and secure facilities in the country - so you don't have to worry about backups, and recovery is more efficient.

TYPES OF CLOUD SERVICES

SaaS

Software-as-a-Service refers to applications that use the internet to deliver applications that are managed by a third party. Most SaaS applications can be run directly from a web browser without any downloads or installations needed (though some require plugins). Applications available in the cloud reduce the cost of software ownership by removing the need for IT staff to manage the installation, and manage and upgrade the software.

EXAMPLES:

Google Apps, Salesforce, Workday, GoToMeeting

PaaS

Platform-as-a-Service functions differently than SaaS, providing a platform on which software can be developed and deployed. There's no dealing with servers so you can focus on the operating system and server software, server hardware and network infrastructure. Benefits include increasing developer productivity and utilization rates while decreasing an application's time-to-market.

EXAMPLES:

IBM Bluemix, Azure, Apprenda

IaaS

Infrastructure-as-a-Service is the most flexible cloud computing model, with on-demand "self-serve" resources complemented by cloud storage and network capability. Instead of having to purchase hardware outright, users can buy IaaS based on consumption. Cloud servers and resources are available through a dashboard and allow for scalability.

EXAMPLES:

Amazon Web Services (AWS), Microsoft Azure, Google Computer Engine (GCE)

INTERESTING FACTS

1,154

The number of cloud services the average organization uses - a nearly 40% increase over the previous year.¹

\$270 billion

The size the cloud market is expected to be by 2020.²

91%

How much more cost-effective managers of SMBs say cloud computing is compared to running its own IT system.⁵

80%

Cloud adopters who believe that cloud computing helps their organization reduce IT costs.⁶

94%

Managers who say their business security has improved after adopting cloud applications.³

40x

SMBs that say their cloud providers made it easier to satisfy compliance requirements.⁴

¹ skyhighnetworks.com

² indianic.com

³ contentmarketinginstitute.com

⁴ blogs.microsoft.com

⁵ forbes.com

⁶ rapidvaluesolutions.com