IT Technologies: Clouds  
  
A cloud service is a virtual remote server that runs in a cloud computing environment. These services are designed to provide users with easy access to applications and resources online (without the need for internal infrastructure or hardware). These recourses include tools and applications such as data storage, databases, servers, networking and software. Cloud services are very useful because rather than keeping files on a hard drive or local storage decide, cloud-based storages make it easy and possible to save files to a remote database and retrieve them on demand. Cloud services can offer the possibility of storing and accessing your files and retrieving them from any web-enabled interface.

Cloud computing is a popular option for many people and businesses and has benefits such as:

* Saving in cost
* Low maintenance cost
* Mobility
* Unlimited storage capacity
* Increased speed and efficiency
* Increased productivity
* Increased performance and security
* Reliability
* Improved collaboration
* Accessibility

Examples of cloud services include:

* Email
* Storage
* Drive
* Docs
* Backup and data retrieval
* Analysing data
* Audio and video streaming
* Delivering software on demand

Cloud computing is the practice of using a network of different servers that store, host, manage and process data online in “the cloud”.

The three main categories of cloud computing are Software as a service (Saas), Infrastructure as a service (IaaS) and Platform as a service (PaaS).

Diagram

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Software as a Service is software that is available via a third-party over the internet. SaaS products offer both consumers and businesses cloud-based tools and applications for everyday use and is the most common cloud service.

Examples of SaaS:

* Google Workspace
* Dropbox
* Salesforce
* Cisco
* WebEx
* HubSpot
* DocuSign

Infrastructure as a Service is cloud-based pay as you go service. IaaS products allow organizations to manage their business resources such as their network, servers and data storage on the cloud.

Examples of IaaS: 

* Amazon Web Services (AWS)
* Google Cloud
* IBM Cloud
* Digital Ocean
* Linode
* Google Compute Engine (GCE)
* Microsoft Azure

Platform as a Service is hardware and software tools that are available over the internet.    PaaS products allow businesses and developers to host, build and deploy consumer-facing apps.

Examples of PaaS: 

* AWS Elastic Beanstalk
* Windows Azure
* Red Hat OpenShift
* Google App Engine
* Apprenda
* Heroku

These software and services can be accessed on any internet browser or via online apps that can be used on different devices by the consumer or business. A simple example of this is, the cloud lets your team collaborate and share files on Google Docs instead of having to work on one Microsoft Word document and send it back and forth, this is a huge benefit for a group of people working on the same project.

Cloud computing can be public, private and hybrid. Public clouds are owned and operated by third party cloud service providers, these providers deliver their computing resources over the internet such as servers and storage. An example of a public cloud is Microsoft Azure. Private clouds are cloud computing resources that are used exclusively by a single business or organisation and are maintained on a private network.

Hybrid clouds combine public and private clouds and allows data and applications to be shared between them.

  Over the last few years alone there have been major developments that have completely changed the cloud market and its abilities.  Cloud computing is an advanced use of the internet and in the future every business will be operating primarily from the cloud. This will allow for more flexible, productive and efficient ways of working and hardware will no longer be a problem. The future of cloud computing is likely to be a combination of cloud-based software products and on-premises compute which will help to create hybrid IT solutions.

 In the future, cloud computing will be improved in areas such as:

* Greater choice of cloud services made available
* Servers’ architecture
* Managing data
* Increased storage capacity
* Enhanced performance of internet
* Improvement in cloud services
* Modular software will be priority
* Improved security
* Economic
* Minimize internet connectivity issues
* Improve security

  Cloud computing provides an effortless and secure way for businesses to manage their recourses online and allows them to access their data virtually anytime, anywhere.  More and more companies are moving towards cloud computing which is why businesses will be most impacted by improvements and development of cloud computing.   Businesses and users will be affected by the developments of cloud completing mostly in a positive way    .

From March 2018 to March 2021, the share of cloud computing jobs per million increased by 42%, according to data from Indeed. During the same time period, searches per million for cloud computing jobs grew by nearly 50 percent. (Haranas, 2021)

The Cloud will be run and maintained by IT professionals, and this creates many technical jobs available such as:

* Cloud Engineer
* Cloud Administrator
* Cloud Architect
* Cloud Automation Engineer
* Cloud Security Analyst
* Cloud Software Engineer
* Cloud Developer
* Cloud Consultant
* Cloud Operations

Cloud computing has already made a dramatic impact on how we live, how we work and how we entertain ourselves. This technology allows us to share information and data very easily, benefiting the way we work. Cloud computing even benefits the environment by limiting the amount of wasted paper files.   
  
Our lives are being changed in many ways by cloud technology. While a lot has been written and said about cloud technology on a technical level, very few studies have looked at how it impacts our everyday lives. Thanks to cloud technology, life is becoming more interesting and engaging than ever before.

  An example of how the cloud affects and benefits me is storage on my phone. Storing all my data including images, videos, notes etc in the cloud is easy, efficient and secure especially when it comes to transferring it.

A picture containing text, stage, laser, light

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