

Types of Cloud

Description

In case you have not read about our post on [what is cloud computing](#), you can go over it to get some idea on why most of the companies are following the cloud path for their businesses.

In this post we will see what are the types of Cloud

Private Cloud

- In the private cloud, services and networks are stored on the same private cloud (server).
- The private cloud is also called the internal cloud or the corporate cloud.
- The private cloud is a private internal network (within an organization) and provides computer services to select users rather than the general public.
- Data provides a high level of security and privacy through private cloud firewalls and internal hosting. It also ensures that operational and sensitive data is not accessible to third-party providers.
- For example Google Drive which is a private cloud computing. All your data in this drive is protected by your email id and password and you can access this cloud storage with the help of your email id and password. HP Data Center, Microsoft, Elastr-Private Cloud, and Ubuntu Private Cloud.

Advantages of Private cloud

1. The private cloud has more control over its resources and hardware than the public cloud because they are only accessed by a select number of users.
2. Security and privacy are major advantages of private cloud.
3. Private Cloud delivers better performance with better speed and space capacity.

Disadvantages of Private cloud

1. The cost is higher than in the public cloud because installing and maintaining hardware resources is expensive.
2. As we know, the private cloud is accessible to the organization, hence the area of operation is limited.
3. Private clouds are only counted in the capacity of the internal hosted resources.

Public Cloud

- Public Cloud is available to everyone, for example, if an ebook is made available for free download on a site and you can download it in one click without creating an account, then the public cloud is considered a little less secure.

- Public Cloud provides a shared platform that gives access to the general public through an Internet connection.
- The public cloud is used on a payment model (i.e. pay-as-per-use) and is administered by a third party, i.e. the cloud service provider.
- In the public cloud, the same storage is being used by more than one user at a time.
- Examples of public clouds are Microsoft Azure, IBM's Blue Cloud, Sun Cloud, and Google Cloud.

Advantages of Public cloud

1. The public cloud costs less than the private or hybrid cloud, as it shares the same resources with a large number of customers.
2. The public cloud is an independent space because its services are provided through the Internet.
3. In the public cloud, the cloud service provider is responsible for managing and maintaining the data centers in which data is stored, so cloud users are responsible for establishing connectivity, deploying new products, issuing product updates, configuring and assembling servers.
4. Organizations can easily purchase a public cloud on the Internet and deploy and configure it remotely through the cloud service provider.
5. Public Cloud provides the ability to flexibly resize computer resources based on the needs of the organization.
6. Public Cloud offers users scalable (easy to add and remove) and reliable (24 * 7 available) services at an affordable price.

Disadvantages of Public cloud

1. As resources are shared publicly, the public cloud is less secure.
2. The performance of the public cloud depends on the internet speed and connectivity
3. The Public cloud is less customizable than the Private cloud.

Hybrid Cloud

- In hybrid-cloud both public cloud and private cloud are used, in simple language hybrid cloud is the combination of Public and Private cloud.Â
- Some content on such a site is available to the public and some content is available only to registered users, such a cloud is called hybrid cloud.
- The main purpose of combining these clouds (public and private) is to make a unified, automated, and well-managed computing environment.
- In a hybrid cloud, the non-critical activities are performed by the public cloud and the critical activities are performed by the private cloud.
- The hybrid cloud is used in finance, healthcare, e-commerce websites, and universities.
- Amazon, Microsoft, Google, Cisco, and NetApp are examples of hybrid cloud provider companies.Â

Advantages of hybrid cloud

1. It provides flexible resources due to the public cloud and secure resources due to the private cloud.

2. Hybrid cloud costs less than private cloud. This helps organizations save costs for both infrastructure and application support.
3. It offers both public and private cloud features. The hybrid cloud can adapt to the demands of each company for space, memory, and systems.
4. Hybrid cloud provides the best way for organizations to manage the risk.
5. The hybrid cloud is safe because critical activities are carried out by the private cloud.Â

Disadvantages of Hybrid Cloud

1. Because of the Private and Public cloud, networking becomes complicated in the Hybrid cloud.
2. Infrastructure compatibility is a major issue in the hybrid cloud. With dual-tier infrastructure, the private cloud controls the company and not the public cloud, so it is likely to run in a separate stack.

Community Cloud

- A community cloud is a cloud infrastructure that makes systems and services accessible through a group of organizations sharing information.
- Community cloud is available only to members of a group, apart from this data cannot be used by any other person.
- For example, employees of a company can only use data available on that company's site Or the website created by any school and the material available on it can be used only by students of that school or institution.

Advantages of Community Cloud

1. Community Cloud is profitable because the entire cloud is shared across multiple organizations or communities.
2. Community Cloud is flexible and scalable due to its compatibility with every user. This allows users to modify the documentation according to their needs and requirements.
3. Community cloud is more secure than public cloud but less secure than private cloud.
4. Community Cloud allows cloud resources, built-in facilities, and other capabilities to be shared across various organizations.

Disadvantages of Community cloud

1. Community cloud is not a good option for every organization.
2. A certain amount of data storage and bandwidth is shared among all community members.
3. Community cloud is more costly than public cloud.
4. It is difficult to share responsibilities in organizations.

Category

1. AWS
2. Cloud

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Author

kk-ravi144gmail-com

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