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# Best Cloud Deployment Models for Businesses - An Overview and Comparison

The utilization of the cloud has changed over the years now. Earlier, it was just an extraordinary option but today it has become a necessity. Today, cloud services come with various deployment models. Generally, when we talk about cloud and cloud services, we think of "public cloud" since it is the most popular cloud model out there. That is just one of the cloud deployments models where the provider owns and maintains all the servers and other hardware resources.

Let us learn about different cloud deployment models and different types of cloud service models in this article.

## What is Cloud Deployment Model?

A cloud deployment model refers to an arrangement of specific environment variables like accessibility and

ownership of the distributing framework and storage size. There are various types of deployment models based on the location and who manages the infrastructure.

## The Need for Different Cloud Deployment Models

At times companies manage their data centers with older features. It is not possible to move to the public cloud for many reasons, it could be to avoid compromising on compliance and data protection laws or they might just be unsure about moving to the public loud because they would have spent oads of money on their own servers and they would want to utilize them. To decide which cloud deployment model suits your organization, it is important to have a thorough understanding of all 5 cloud deployment models.

There are 5 popular cloud deployment models. Let us have a look at each one of them one by one.

1. Public Cloud

The public cloud deployment model is the most popular one. In a public cloud deployment model, you do not own any hardware, since all the resources are provided by the cloud service provider. It is available for the general public and the resources can be used by all. The data is generated and stored by third party service providers which means companies need not maintain their hardware.

The public cloud deployment model works well with companies with little privacy concerns. Amazon Elastic Compute Cloud (Amazon EC2), AWS (Amazon Web Services), Microsoft Azure, IBM Cloud,

Google Cloud, Salesforce Heroku are a few examples of public cloud deployments.

2. Private Cloud

From a technical perspective, there is not much difference between the public and private Is since their architecture is similar. But in a private cloud deployment model, a dedicated environment is present for every customer. There is no sharing of hardware with any other users. Hence it is also called 'internal' or 'corporate model'.

In private cloud model, you maintain the data center just like it is done in public cloud model. An abstraction layer is created on top of your physical servers to gain flexibility. New servers can be added to the data center and there is no need to configure them again as they have semi automatically become a part of the

cluster. It is possible to get a private cloud from a public cloud provider.

3. Hybrid cloud

A hybrid cloud model is a combination of public and private cloud. It is the second most popular model after the public cloud model as it combines the best of public and private cloud features.

In a hybrid model, companies can use their existing public cloud and also own on-premises systems. This model is extremely useful during a seamless transition between clouds over a period of time.

Owing to security concerns, few companies cannot operate only in the public cloud. Hence, they go for a hybrid cloud to combine their needs and leverage benefits from a public cloud. Here, critical applications with sensitive data are run on premises and

the rest of the applications are in the public cloud.

4. Multi-cloud Model

In multi-cloud model, more than one cloud service provider is part of the process. You will be using both public and private cloud services. However, you will not be combining private with public cloud instead, you will be using more than one public cloud. This approach reduces redundancy. To avoid any disaster and disruption in the working of applications, two different clouds are used.

Multi-cloud deployment model provides high accessibility of your services. You can utilize specific services from two different public clouds at the same time in multi-cloud model.

Amazon Web Services (AWS), Google Cloud Platform (GCP), Microsoft (Azure), and

IBM are examples of multi-cloud models.

5. Community cloud

Community cloud deployment model is similar to private one but differs in the set of users. Only one particular company owns the cloud server in private cloud model while in community model, many organizations with similar backgrounds share the framework and related resources.

This type of multi-tenant data center infrastructure helps groups of companies which have uniform security, privacy and similar performance requirements. It also improves the efficiency and smooth workflow of these participating companies in case of joint projects. With the help of centralized cloud, project development, maintenance and deployment can be managed well, and cost will be divided amongst the companies.

Deploying to the Cloud

It is equally important to know about software deployment now that we have an understanding of cloud deployment models and cloud services models. Resources can be optimally used using these models, but businesses gain profits with effective software deployment. There are several ways to deploy your software. Today, timely deployment of software adds real business value to companies. Companies should be able to deploy new features and fix bugs at least once a day to thrive in the market.

Lot of companies are not keen on deploying software often due to downtime issues. They prefer to follow frequent testing and beforehand preparation as best practices. To limit the risk that comes with new deployments, companies should go with an approach where deployment of software happens only to a small fraction of users first. After testing, roll out the change to the rest of the users. This saves time

and money also increases efficiency and productivity.

## Conclusion

Whichever cloud deployment model you choose, you still need to pick the right software deployment method to suit your needs. To help you make proper decisions, our team at Embitel will guide at every step for a smooth transition from database to cloud.

We offer an array of cloud services and deployment models to choose from. *We* use our extensive experience & knowledge of cloud technologies to deliver on projects of any scale & complexity. Check out our customer testimonials here.