TNGS Learning Solutions
AWS Solutions Architect
Online Course
Cloud Computing
Models

Cloud Computing Models

- Cloud computing models refer to the various service and deployment models that define how cloud computing resources are delivered, managed, and accessed. These models are fundamental in understanding the different approaches to using cloud technology and the roles of both cloud providers and users.
- The two primary dimensions of cloud computing models are:
  - **Service Models**
  - **Deployment Models**

Cloud Computing Models

Deployment Models

A **Public Cloud** is a cloud computing deployment model where cloud services and resources are owned, operated, and provided by third-party cloud service providers over the internet. In a public cloud, these resources are made available to the general public or a wide range of organizations, and users can access and utilize them on a pay-as-you-go or subscription basis.

Public Cloud

Accessibility: Public cloud services are accessible over the internet from virtually anywhere, allowing users to access resources using web browsers, client applications, or APIs.

Public Cloud

Shared Infrastructure: Public cloud providers use a multi-tenant model, where multiple customers (tenants) share the same underlying infrastructure, such as servers, storage, and networking resources. Each tenant's data and configurations are isolated and secured.

Public Cloud

Pay-As-You-Go: Public cloud services typically follow a utility-based pricing model, where users pay only for the resources they consume. This eliminates the need for large upfront capital expenditures.

Public Cloud

Scalability: Public clouds offer scalability, allowing users to easily scale up or down their computing resources based on demand. This flexibility is particularly useful for handling variable workloads.

Public Cloud

Managed Services: Public cloud providers take responsibility for managing and maintaining the infrastructure, including hardware, software updates, security, and data backups.

Public Cloud

Global Reach: Many public cloud providers operate data centers in multiple regions and countries, providing a global presence and low-latency access to resources.

Public Cloud

Security and Compliance: Public cloud providers invest heavily in security measures and often offer a range of security features, certifications, and compliance standards to meet the needs of different industries.

Common references of Public Cloud

Web Hosting and Development: Public clouds are commonly used for hosting websites and web applications, as they offer the necessary infrastructure and scalability for online services.

Common references of Public Cloud

Software as a Service (SaaS): SaaS providers leverage public cloud infrastructure to deliver software applications and services to users over the internet on a subscription basis.

Common references of Public Cloud

Big Data and Analytics: Organizations use public clouds to process and analyze large datasets, leveraging cloud-based data storage and scalable computing resources.

Common references of Public Cloud

Development and Test Environments: Public clouds provide a cost-effective and flexible platform for creating development and testing environments without the need for on-premises hardware.

Common references of Public Cloud

Content Delivery: Content delivery networks (CDNs) use public cloud infrastructure to distribute content efficiently to users around the world.

Common references of Public Cloud

Backup and Disaster Recovery: Public cloud storage and backup services offer reliable data backup and disaster recovery solutions.

Conclusion

Organizations usually choose a public cloud provider based on factors like pricing, available services, geographic coverage, and compliance requirements.

Public clouds are well-suited for businesses of all sizes, from startups to large enterprises, and offer the agility and scalability needed to meet various IT needs.