



# **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

**Hybrid Cloud** is a cloud computing deployment model that combines elements of both public and Hybrid Clouds, allowing data and applications to be shared between them. In a hybrid cloud environment, organizations maintain some of their computing resources on-premises in a Hybrid Cloud, while also leveraging public cloud services provided by third-party cloud providers.

The goal of a hybrid cloud is to provide greater flexibility, scalability, and cost-efficiency by allowing workloads to move seamlessly between the private and public cloud components as needed.

# Hybrid Cloud

**Integration:** Hybrid clouds enable seamless integration between on-premises infrastructure and public cloud services, allowing data and applications to work together efficiently.

# Hybrid Cloud

**Data Portability:** Data and applications can move between the private and public cloud components as requirements change, enabling organizations to balance performance, cost, and compliance considerations.

# Hybrid Cloud

**Scalability:** Organizations can take advantage of the scalability and resources of the public cloud while maintaining control over sensitive or critical workloads in the private cloud.

# Hybrid Cloud

**Resource Optimization:** Hybrid clouds allow organizations to optimize resource utilization by running workloads where they are most cost-effective or suitable, such as using public cloud resources for burst workloads.

# Hybrid Cloud

**Security and Compliance:** Sensitive data and workloads can be kept within the private cloud to meet regulatory requirements and security standards, while non-sensitive workloads can run in the public cloud.



# Common references of Hybrid Cloud

**Data Backup and Disaster Recovery:** Organizations use the public cloud for backup and disaster recovery solutions, ensuring data resilience while keeping critical applications in a private cloud.

# Common references of Hybrid Cloud

**Data Processing and Analytics:** Organizations leverage public cloud resources for data processing and analytics, taking advantage of the public cloud's scalability and specialized services.

# Common references of Hybrid Cloud

**Legacy Application Integration:** Hybrid clouds facilitate the integration of legacy applications hosted on-premises with modern cloud-based services.

# Common references of Hybrid Cloud

**Compliance and Security:** Sensitive data can be kept within the private cloud to meet regulatory compliance requirements, while less sensitive applications utilize public cloud resources.

# Common references of Hybrid Cloud

**Geographic Redundancy:** Hybrid cloud deployments allow organizations to maintain redundant data and application instances in multiple geographic regions, enhancing availability and disaster recovery capabilities.

# Conclusion

- Implementing a hybrid cloud requires a well-defined strategy and the appropriate tools and technologies for managing and orchestrating workloads across the two environments.
- Hybrid cloud solutions often involve hybrid cloud management platforms and tools to simplify resource provisioning, workload migration, and governance across the hybrid infrastructure. Major cloud providers, such as Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform (GCP), offer services and tools designed to support hybrid cloud deployments.