

CLOUD COMPUTING

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WHAT IS CLOUD?

- The term cloud refers to a network or the internet. It is a technology that uses remote servers on the internet to store, manage, and access data online rather than local drives. The data can be anything such as files, images, documents, audio, video, and more.
- There are the following operations that we can do using cloud computing:
 1. Developing new applications and services
 2. Storage, back up, and recovery of data
 3. Hosting blogs and websites
 4. Delivery of software on demand
 5. Analysis of data
 6. Streaming videos and audios

ADVANTAGES OF CLOUD



Back-up and restore
data



Improved
collaboration



Excellent
accessibility



Low maintenance
cost



Mobility



IServices in the
pay-per-use model



Unlimited storage
capacity



Data security

DISADVANTAGES OF CLOUD



Internet
Connectivity



Vendor lock-in



Limited
Control



Security

TYPES OF CLOUD SERVICES

IaaS	Paas	SaaS
It provides a virtual data center to store information and create platforms for app development, testing, and deployment.	It provides virtual platforms and tools to create, test, and deploy apps.	It provides web software and apps to complete business tasks.
It provides access to resources such as virtual machines, virtual storage, etc.	It provides runtime environments and deployment tools for applications.	It provides software as a service to the end-users.
It is used by network architects.	It is used by developers.	It is used by end users.
IaaS provides only Infrastructure.	PaaS provides Infrastructure+Platform.	SaaS provides Infrastructure+Platform +Software.

TOP 3 CLOUD PROVIDERS

Parameter	AWS	Azure	Google Cloud Platform
App Testing	It uses device farm	It uses DevTest labs	It uses Cloud Test labs.
API Management	Amazon API gateway	Azure API gateway	Cloud endpoints.
Kubernetes Management	EKS	Kubernetes service	Kubernetes engine
Git Repositories	AWS source repositories	Azure source repositories	Cloud source repositories.
Data warehouse	Redshift	SQL warehouse	Big Query
Object Storage	S3	Block Blobs and files	Google cloud storage.
Relational DB	RDS	Relational DBs	Google Cloud SQL
Block Storage	EBS	Page Blobs	Persistent disks
Marketplace	AWS	Azure	G suite
File Storage	EFS	Azure Files	ZFS and Avere
Media Services	Amazon Elastic transcoder	Azure media services	Cloud video intelligence API
Virtual network	VPC	VNet	Subnet
Pricing	Per hour	Per minute	Per minute
Maximum processors in VM	128	128	96
Maximum memory in VM (GiB)	3904	3800	1433
Caching	ElasticCache	RedisCache	CloudCDN
Load Balancing Configuration	Elastic Load Balancing	Load Balancer Application Gateway	Cloud Load Balancing
Global Content Delivery Networks	CloudFront	Content Delivery Network	Cloud Interconnect

RECOMMENDATION OF SERVICE PROVIDERS

- Extensive business applications which needs high RAM,CPU and storage capabilities especially for computing tasks , extensive testing and building Apps store tasks which has big data to work smoothly. It's recommended to use AWS.
- AWS offers best compute quality for massive big data with pricing discounts of One-year free trial along with a discount of up to 75% for a 1 to 3 years commitment.
- The startup which focus primarily on data gathering, software applications (Development, Testing and Production) with separate environment and small-medium customer range. The best choice is GCP cloud which offers best price for GCP Credit of \$300 for 12 months apart from a sustained use discount of up to 30%.
- The organization which is about grow its services from medium – large customer acquisition requires extensive service functionalities testing the best choice is Azure offers Azure credits Up to 75% discount for a commitment ranging from one to three years.