



Waterford Institute of Technology



CLOUD SERVICE PROVIDERS - I

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LIST OF CLOUD SERVICE PROVIDERS

- Amazon Web Service (AWS)
- Microsoft Azure
- Google Cloud Platform
- IBM Cloud Services
- Adobe Creative Cloud
- VMware
- Kamatera
- Rackspace
- Oracle Cloud
- Verizon Cloud
- Dropbox
- Server Space



AMAZON WEB SERVICES



AMAZON WEB SERVICES

- Amazon Web Services is a cloud computing platform that provides services such as compute power, database storage, content delivery and many other functions which will help to integrate a business.
- The Amazon Web Services is flexible, scalable, and reliable and due to this many companies are implementing it in their work. There is no upfront cost and the customer has to pay only for what they have used.
- It is one of the leading cloud service providers among all.



WHAT IS AWS OFFERING?

- **Low Ongoing Cost:**, pay-as-you-go pricing with no up-front expenses or long-term commitments.
- **Instant Elasticity & Flexible Capacity:** (scaling up and down) Eliminate guessing on your infrastructure capacity needs.
- **Speed & Agility:** Develop and deploy applications faster Instead of waiting weeks or months for hardware to arrive and get installed.
- **Flexible:** You choose the development platform or programming model that makes the most sense for your business.
- **Secure:** Allows your application to take advantage of the multiple layers of operational and physical security in the AWS data centers to ensure the integrity and safety of your data.

AMAZON ELASTIC COMPUTE CLOUD (EC2)

- A web service that provides resizable compute capacity in the cloud.
- EC2 allows creating Virtual Machines (VM) on-demand. Pre-configured templated Amazon Machine Image (AMI) can be used get running immediately.
- Creating and sharing your own AMI is also possible via the AWS Marketplace.
- Auto Scaling allows automatically scale of the capacity up seamlessly during demand spikes to maintain performance, and scales down during demand lulls to minimize costs.



Amazon
EC2

AMAZON ELASTIC COMPUTE CLOUD (EC2)

- Elastic Load Balancing automatically distributes incoming application traffic across multiple Amazon EC2 instances.
- Pay only for resources actually consume, instance-hours.
- VM Import/Export enables you to easily import virtual machine images from your existing environment to Amazon EC2 instances and export them back at any time.



Amazon
EC2

AMAZON ELASTIC BLOCK STORE (EBS)

- Provides block level storage volumes (1 GB to 1 TB) for use with Amazon EC2 instances.
 - Multiple volumes can be mounted to the same instance.
 - EBS volumes are network-attached, and persist independently from the life of an instance.
 - Storage volumes behave like raw, unformatted block devices, allowing users to create a file system on top of Amazon EBS volumes, or use them in any other way you would use a block device (like a hard drive).
- EBS volumes are placed in a specific Availability Zone, and can then be attached to instances also in that same Availability Zone.



AMAZON ELASTIC BLOCK STORE (EBS)

- Each storage volume is automatically replicated within the same Availability Zone.
- EBS provides the ability to create point-in-time snapshots of volumes, which are persisted to Amazon S3.
 - These snapshots can be used as the starting point for new Amazon EBS volumes, and protect data for long-term durability.
 - The same snapshot can be used to instantiate as many volumes as you wish.
 - These snapshots can be copied across AWS regions.



AMAZON SIMPLE STORAGE SERVICE (S3)

- Amazon S3 provides a simple web services interface that can be used to store and retrieve any amount of data, at any time, from anywhere on the web.
- Write, read, and delete objects containing from 1 byte to 5 terabytes of data each. The number of objects you can store is unlimited.
- Authentication mechanisms are provided to ensure that data is kept secure from unauthorized access.
 - Objects can be made private or public, and rights can be granted to specific users.
- S3 charges based on per GB-month AND per I/O requests AND per data modification requests.



AMAZON VIRTUAL PRIVATE CLOUD (VPC)

- Amazon VPC lets you provision a logically isolated section of the Amazon Web Services (AWS) Cloud.
- You have complete control over your virtual networking environment, including:
 - selection of your own IP address range,
 - creation of subnets, and
 - configuration of route tables and network gateways.
- VPC allows bridging with an onsite IT infrastructure with an encrypted VPN connection with an extra charge per VPN Connection-hour.



AMAZON DYNAMODB

- DynamoDB is a fast, fully managed NoSQL database service that makes it simple and cost-effective to store and retrieve any amount of data, and serve any level of request traffic.
- All data items are stored on Solid State Drives (SSDs), and are replicated across 3 Availability Zones for high availability and durability.
- DynamoDB tables do not have fixed schemas, and each item may have a different number of attributes.
- DynamoDB has no upfront costs and implements a pay as you go plan as a. A flat hourly rate based on the capacity reserved.





CROSS SERVICE FEATURES



AMAZON CLOUDWATCH

- Amazon CloudWatch provides monitoring for AWS cloud resources and the applications customers run on AWS.
- Amazon CloudWatch lets you programmatically retrieve your monitoring data, view graphs, and set alarms to help you troubleshoot, spot trends, and take automated action based on the state of your cloud environment.
- Customers can also supply their own custom application and system metrics, such as memory usage, transaction volumes, or error rates,.



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Amazon Cloudwatch