

Practical No 1: Amazon EC2 case study

Amazon Web Services (AWS) is a collection of remote computing services, also called web services, that make up a cloud computing platform by Amazon.com. The most central and well-known of these services are Amazon EC2 and Amazon S3. The service is advertised as providing a large computing capacity (potentially many servers) much faster and cheaper than building a physical server farm.

Benefits : -

- **Easy to use** : - AWS is designed to allow application providers, ISVs, and vendors to quickly and securely host your applications.
- **Flexible** : - AWS enables you to select the operating system, programming language, web application platform, database, and other services you need.
- **Cost effective** : - You pay only for the compute power, storage, and other resources you use, with no long-term contracts or up-front commitments.
- **Reliable** :- With AWS, you take advantage of a scalable, reliable, and secure global computing infrastructure, the virtual backbone of Amazon.
- **Scalable and High Performance** :- Using AWS tools, Auto Scaling, and Elastic Load Balancing, your application can scale up or down based on demand.
- **Secure** :- AWS utilizes an end-to-end approach to secure and harden our infrastructure, including physical, operational, and software measures.

Application Solutions: AWS offers a reliable and flexible cloud infrastructure platform that enables customers to run any type of business application, from small departmental solutions to mission-critical applications in a secure and robust environment.

Amazon Elastic Compute Cloud (EC2) : It is a central part of Amazon.com cloud computing platform, Amazon Web Services (AWS). EC2 allows users to rent virtual computers on which to run their own computer applications. EC2 allows scalable deployment of applications by providing a Web service through which a user can boot an Amazon Machine Image to create a virtual machine, which Amazon calls an "instance", containing any software desired. A user can create, launch, and terminate server instances as needed, paying by the hour for active servers, hence the term "elastic". EC2 provides users with control over the geographical location of instances that allows for latency optimization and high levels of redundancy.

Some functions of Amazon EC2 :

- Account Attributes
- AMIs
- Key Pairs
- VM Import
- VM Export