CLF-C01

Overview

AWS Cloud Computing

Cloud Computing is the on-demand delivery of compute power, database storage, applications, and other IT resources through a cloud services platform via the internet with pay-as-you-go pricing

AWS Cloud Services Platform provides rapid access to flexible and low cost IT resources

Pay-as-you-go pricing? Pay only for what you use, when you use it !

3 major serivce model: IaaS, PaaS, SaaS, the differences between them are Functionalityand Tasks' Ownership & Flexibility

Deployment Model

- On-Premises, also known as Private Cloud
  - Resources are deployed in your on-premises DC, using virtualization and resource management tools - VMWare, Hyper-V, OpenStack
  - Offters the ability to provide dedicated resources, not split between users or end customers (only your Apps sit on the actual hardware)
  - You have full control over your infrastructure and are responsibile for management and OS patching
- Hybrid
  - Can be an intermediate step, whiel you are on the way to fully migrating to the AWS cloud
  - a way to connect infra and apps between cloud-based resources and existing resources that are not located in the cloud
  - The most common method of hybrid deployment is between the cloud and your existing on-premises infra in order to extend or grow your organizations' infra
- Cloud
  - application is fully deployed in the cloud and all components of the application run in the cloud
  - Applications in the cloud have either been created in the cloud or have been migrated from an existing infra to take advantage of the cloud benefits
  - Migrating an App from on-prem to cloud is typically called "lift-and-shift"; this refers to taking the App as is, without modifying it, and running it on cloud-native resources

6 Advantages of AWS Cloud Computing

1) Trade capital expense for variable expense
   - You can now pay only when you consume computing resources, and pay only for how much you consume
   - No upfront commitment "pay-as-you-use"
2) Benefit from massive economies of scale
   - You can achieve a lower variable cost than you can get on your own
   - Because usage from hundreds of thousands of customers is aggregated in the cloud, providers such as AWS can achieve higher economies of scale, which translates into lower pay-as-you-go prices
3) Stop guessing about capacity
4) Increase speed and agility
5) Stop spending money running and maintaining DCs
6) Go global in minutes

AWS Global Infra

- Regions
- AZs
- Edge Locations

AWS Mgmt Interfaces