AMAZON WEB SERVICES

Cloud Computing Assignment

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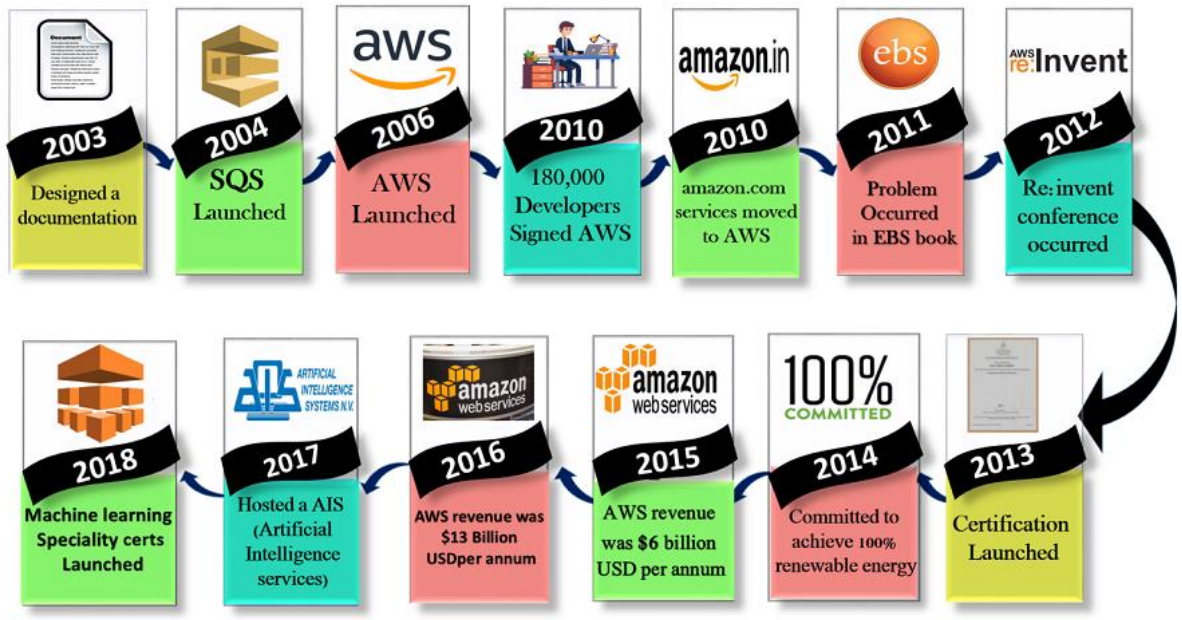
Amazon Web Services

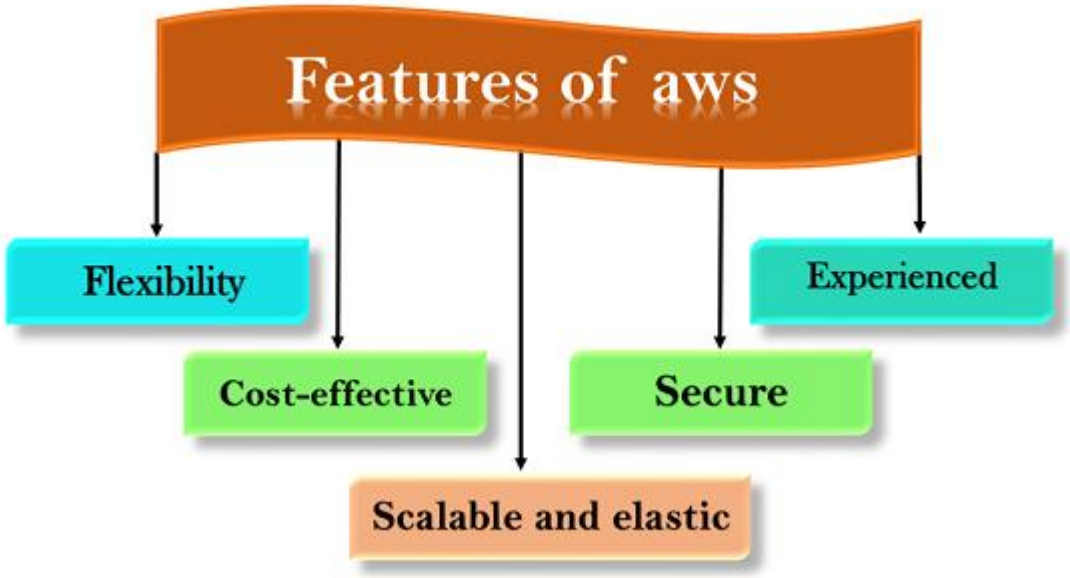
Amazon Web Services (**AWS**) is a subsidiary of Amazon that provides on-demand cloud computing platforms to individuals, companies, and governments, on a metered pay-as-you-go basis. In aggregate, these cloud computing web services provide a set of primitive abstract technical infrastructure and distributed computing building blocks and tools. One of these services is Amazon Elastic Compute Cloud, which allows users to have at their disposal a virtual cluster of computers, available all the time, through the Internet. AWS's version of virtual computers emulate most of the attributes of a real computer including, hardware central processing units (CPUs) and graphics processing units (GPUs) for processing, local/RAM memory, hard-disk/SSD storage; a choice of operating systems; networking; and pre-loaded application software such as web servers, databases, customer relationship management (CRM), etc.

History



The AWS platform was launched in July 2002. In its early stages, the platform consisted of only a few disparate tools and services. In November 2004, the first AWS service launched for public usage: Simple Queue Service (SQS). In November 2010, it was reported that all of Amazon.com's retail sites had migrated to AWS. Prior to 2012, AWS was considered a part of Amazon.com and so its revenue was not delineated in Amazon financial statements. In that year industry watchers for the first time estimated AWS revenue to be over $1.5 billion. In April 2015, Amazon.com reported AWS was profitable, with sales of $1.57 billion in the first quarter of the year and $265 million of operating income. In January 2018, Amazon launched an autoscaling service on AWS. In November 2018, AWS announced customized ARM cores for use in its servers. Also in November 2018, AWS is developing ground stations to communicate with customer's satellites.

Features



- The flexibility of AWS allows us to choose which programming models, languages, and operating systems are better suited for their project, so we do not have to learn new skills to adopt new technologies.
- An aws allows you to access the resources more instantly. It has the ability to respond the changes more quickly, and no matter whether the changes are large or small, means that we can take new opportunities to meet the business challenges that could increase the revenue, and reduce the cost.
- Scalability in aws has the ability to scale the computing resources up or down when demand increases or decreases respectively.
- Elasticity in aws is defined as the distribution of incoming application traffic across multiple targets such as Amazon EC2 instances, containers, IP addresses, and Lambda functions.
- **Physical security**: Amazon has many years of experience in designing, constructing, and operating large-scale data centers. An aws infrastructure is incorporated in AWS controlled data centers throughout the world. The data centers are physically secured to prevent unauthorized access.
- **Secure services**: Each service provided by the AWS cloud is secure.
- **Data privacy**: A personal and business data can be encrypted to maintain data privacy.
- Amazon continues to benefit its customers by enhancing their infrastructure capabilities.

Uses of AWS

- A small manufacturing organization uses their expertise to expand their business by leaving their IT management to the AWS.

- A large enterprise spread across the globe can utilize the AWS to deliver the training to the distributed workforce.
- An architecture consulting company can use AWS to get the high-compute rendering of construction prototype.
- A media company can use the AWS to provide different types of content such as ebox or audio files to the worldwide files.