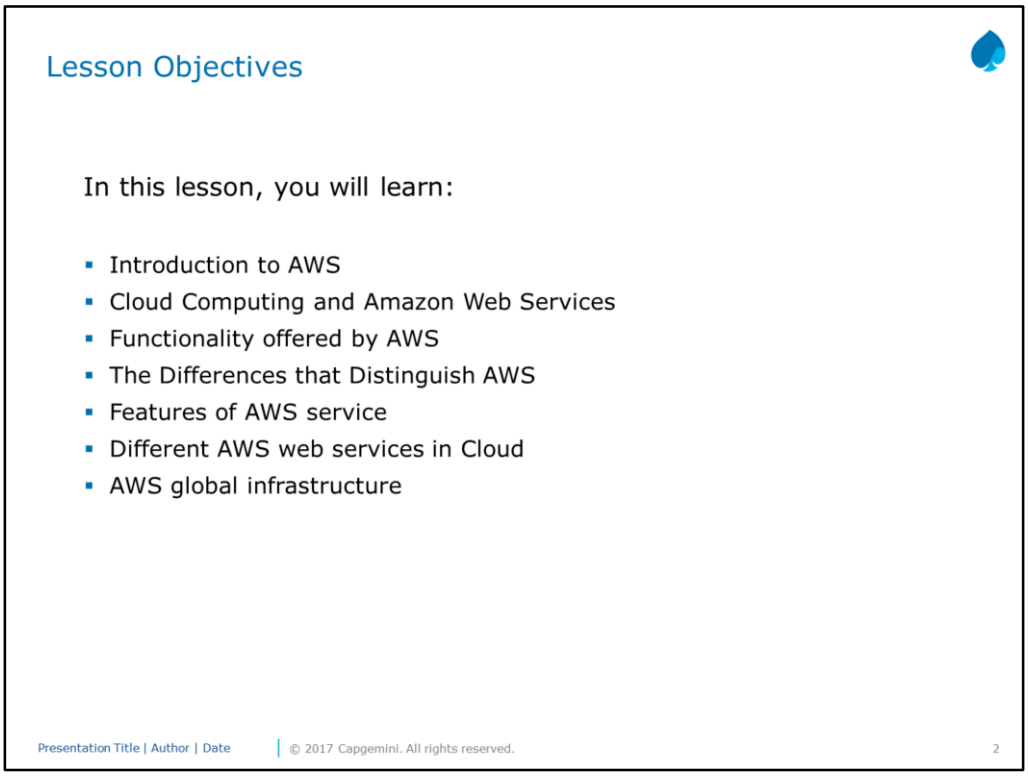
Instructor Notes:

Add instructor notes here.

Instructor Notes:

This lesson is to give an Introduction on AWS basics



Introduction to AWS
Cloud Computing and Amazon Web Services
Functionality offered by AWS
The Differences that Distinguish AWS
Features of AWS service
Different AWS web services in Cloud
AWS global infrastructure

Instructor Notes:

Introduction To AWS

Amazon Web Service (AWS) is a secure Cloud Service platform.
It is currently available in 190 countries with 16 geographic locations

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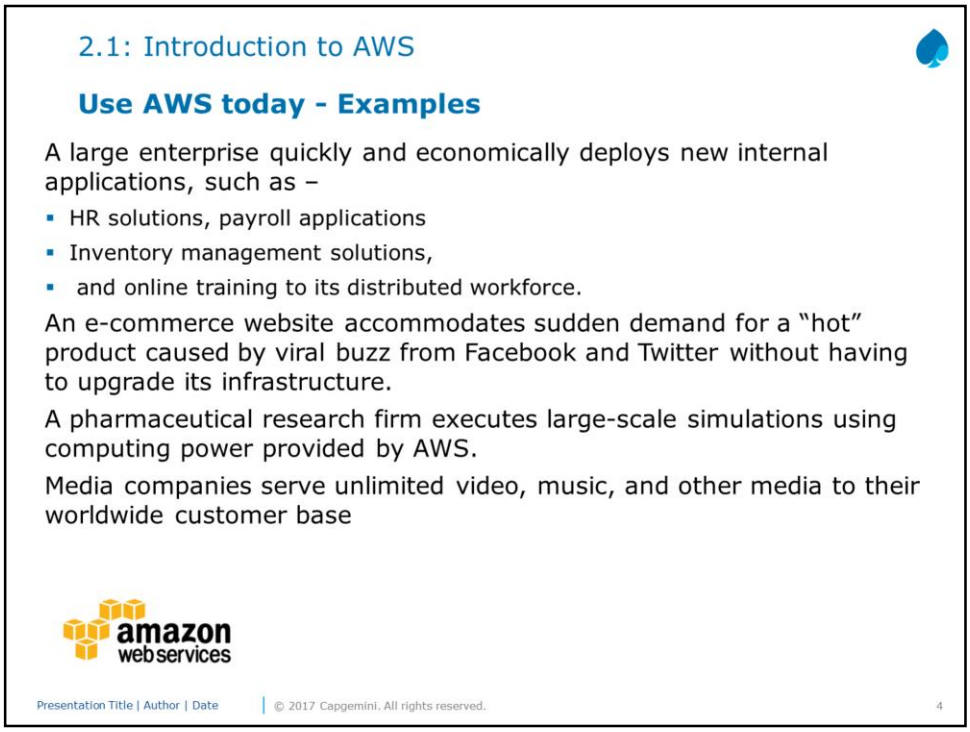

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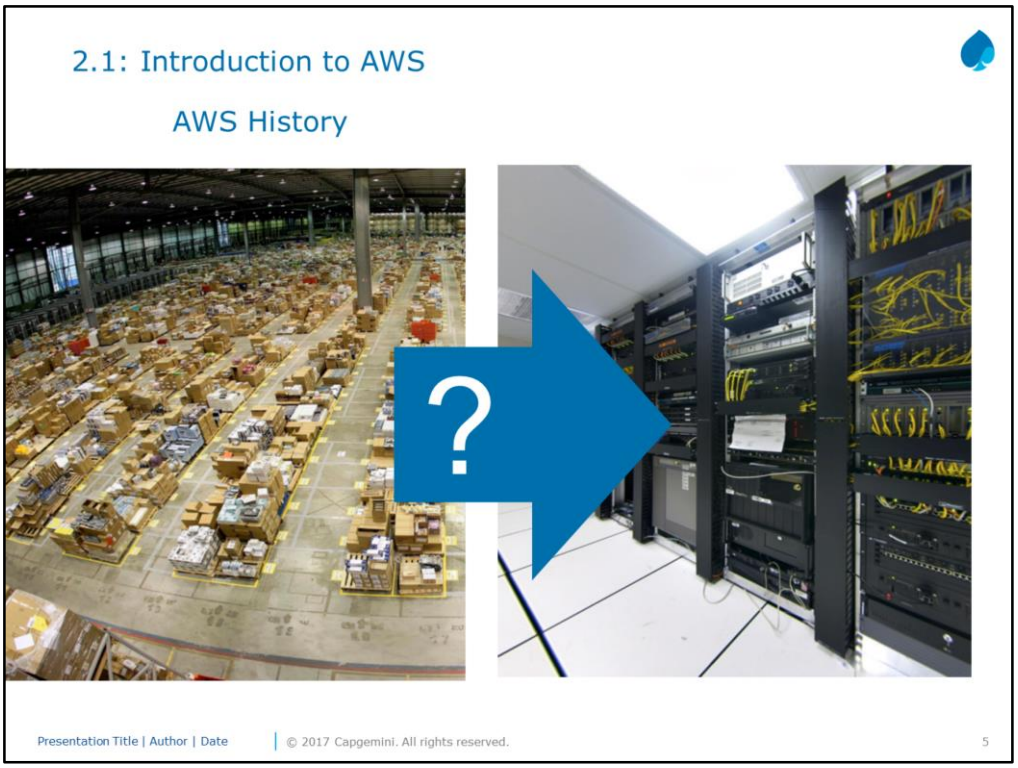

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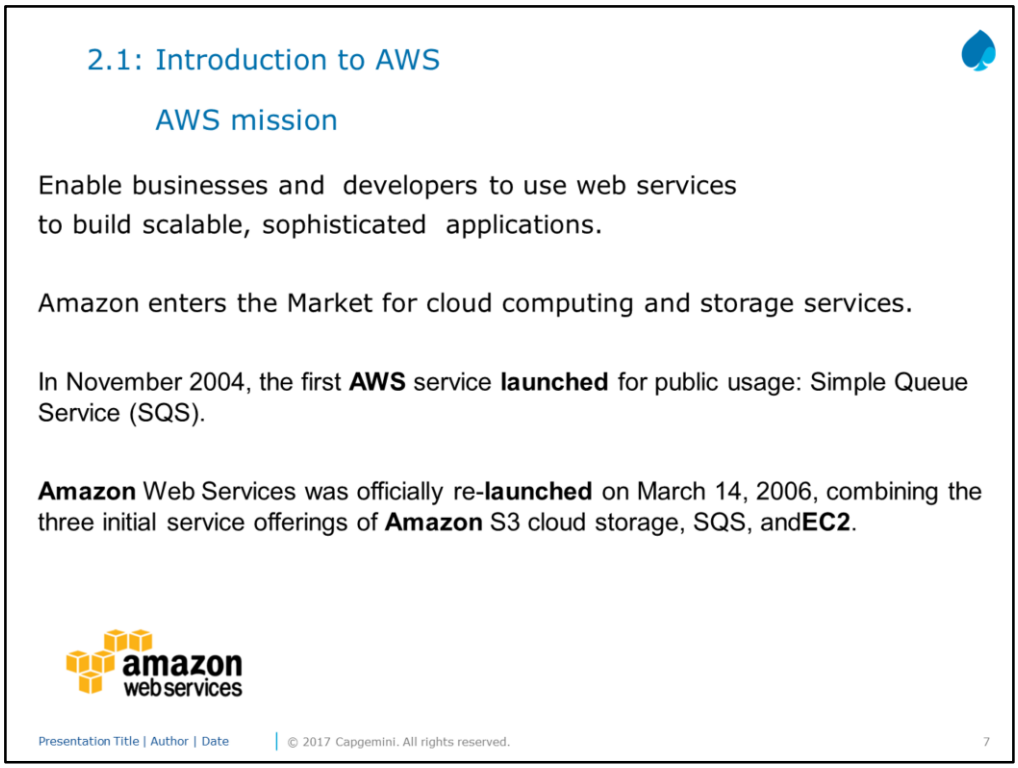

In November 2004, the first **AWS** service **launched**for public usage: Simple Queue Service (SQS). ...**Amazon** Web Services was officially re-**launched** on March 14, 2006, combining the three initial service offerings of **Amazon** S3 cloud storage, SQS, and**EC2**.

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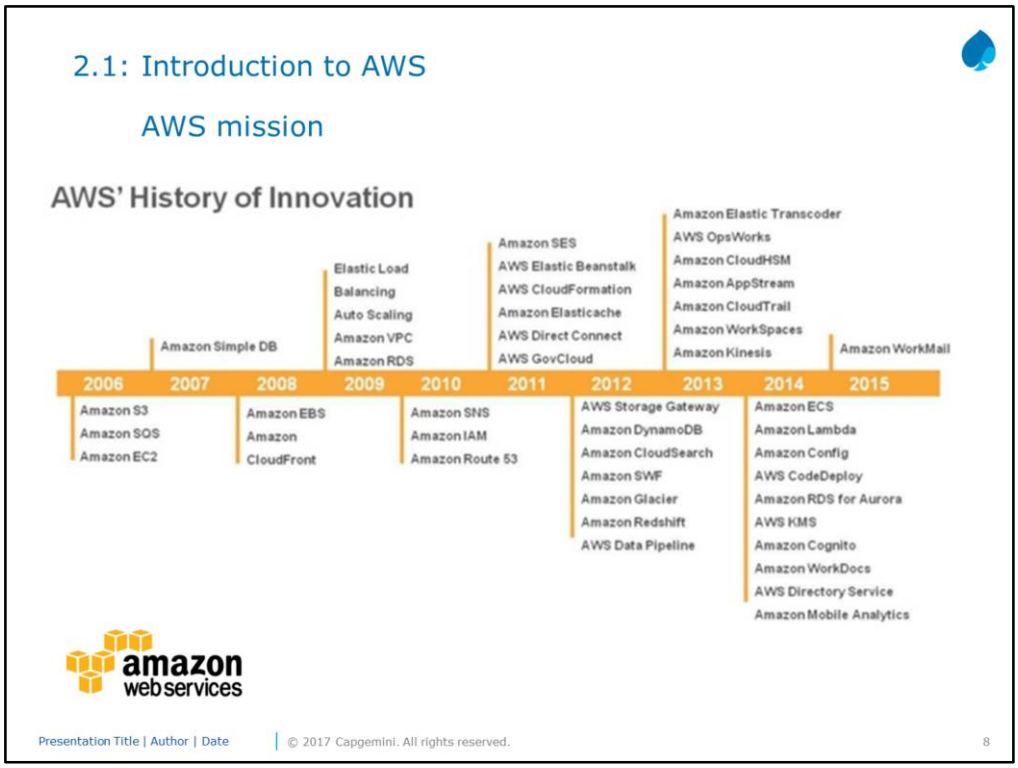

AWS included the following services:

Alexa Web Information Service: (acquired in 1999)
Mechanical Turk: dividing work into many tasks for humans (2005)
Elastic Compute Cloud(EC2): computing platform (2006)
Simple Storage Service(S3) : storage platform (2006)
Simple Queue Service: web service for storing and queuing messages across the Internet (2007)
Flexible Payments Service: online payment platform (2007)
Simple DB: web service for running queries on structured data in real time (2007)
Persistent Storage: allows developers to earmark a storage volume online for people to save files in different file systems (2008)

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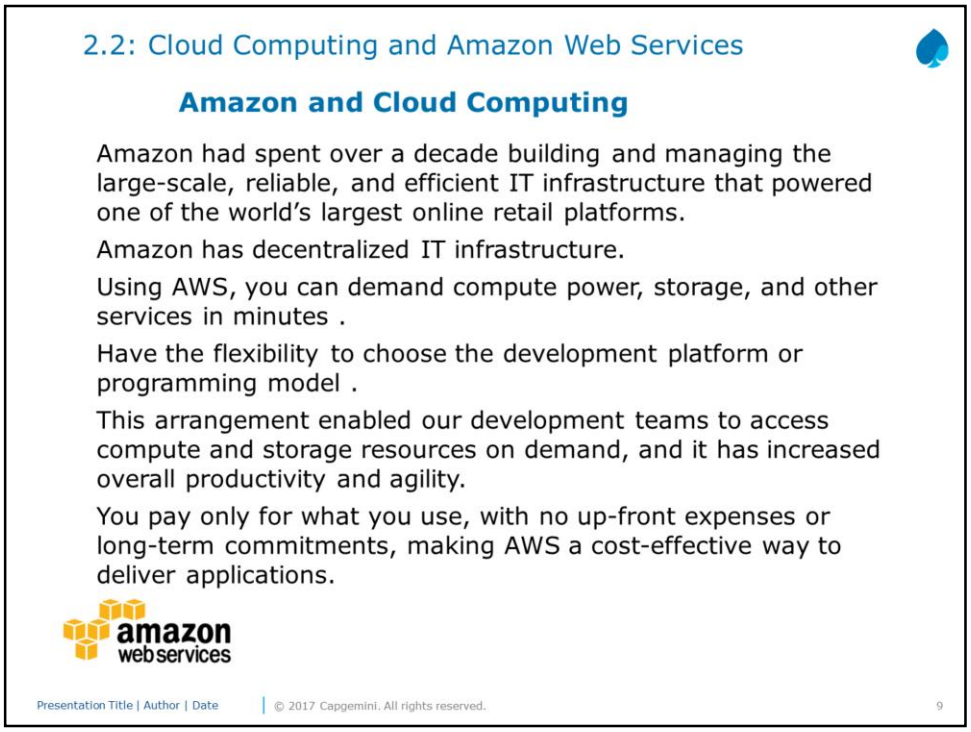


Amazon has a long history of using a decentralized IT infrastructure. This arrangement enabled development teams to access compute and storage resources on demand, and it has increased overall productivity and agility. Using AWS, you can requisition compute power, storage, and other services in minutes and have the flexibility to choose the development platform or programming model that makes the most sense for the problems they're trying to solve. You pay only for what you use, with no up-front expenses or long-term commitments, making AWS a cost-effective way to deliver applications.

Instructor Notes:

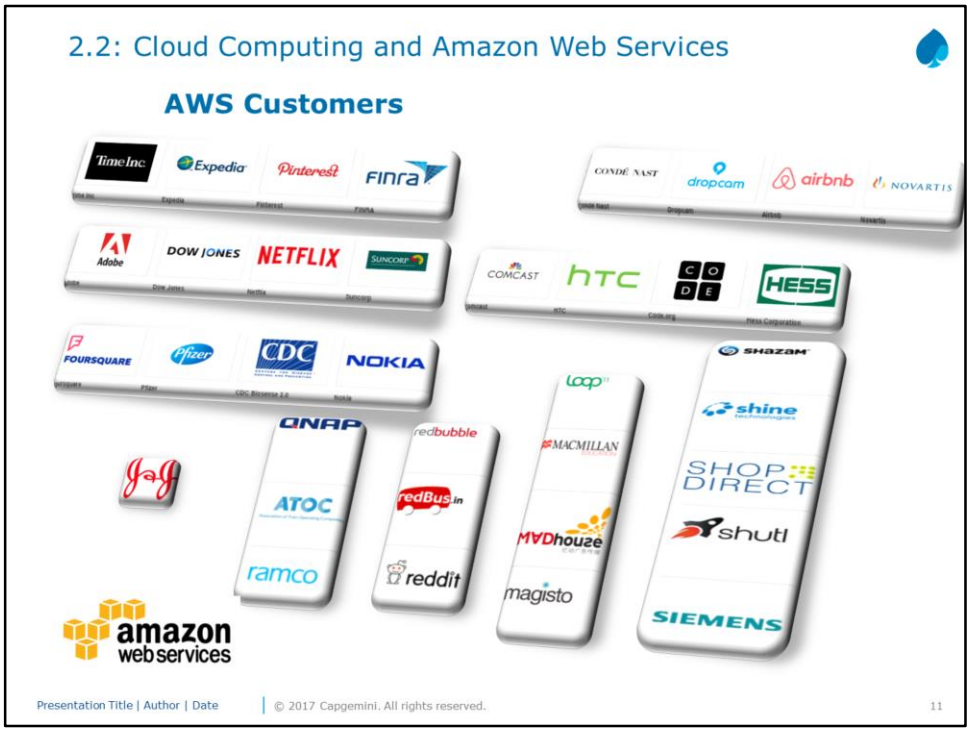
You can run nearly anything on AWS that you would run on physical hardware:

Websites
Applications
Databases
Mobile apps
Email campaigns
Distributed data analysis
Media storage
and private networks.

The services AWS provide are designed to work together so that you can build complete solutions.

There are currently dozens of services, with more being added each year

Instructor Notes:



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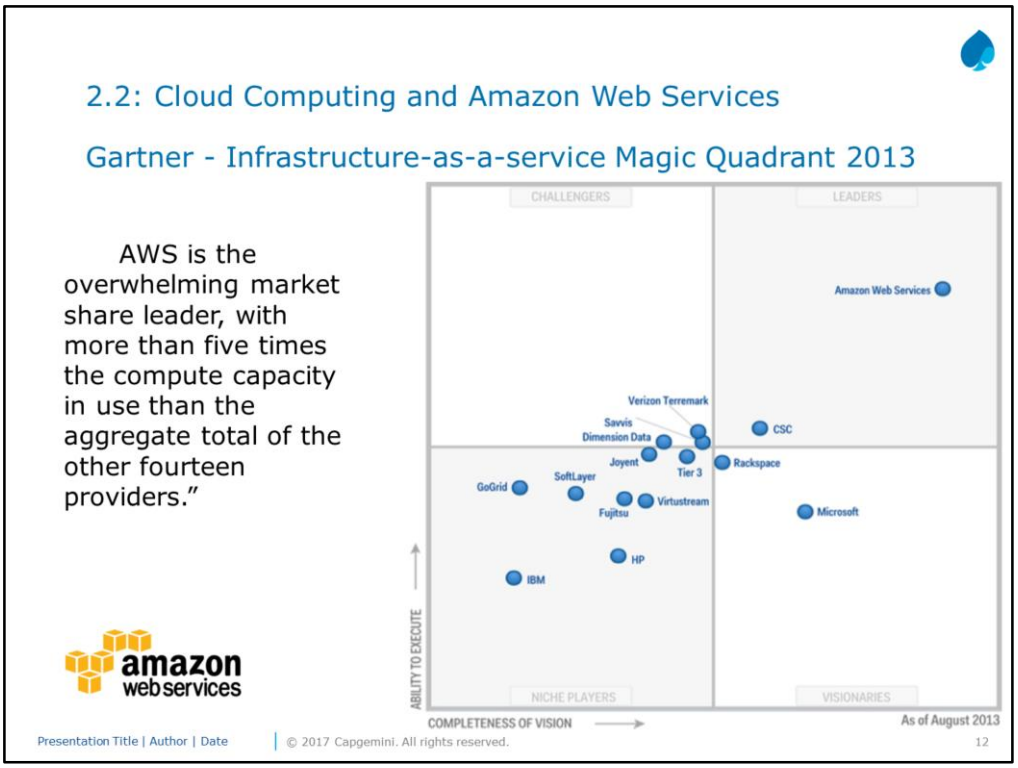

"AWS is the overwhelming market share leader, with more than five times the compute capacity in use than the aggregate total of the other fourteen providers."

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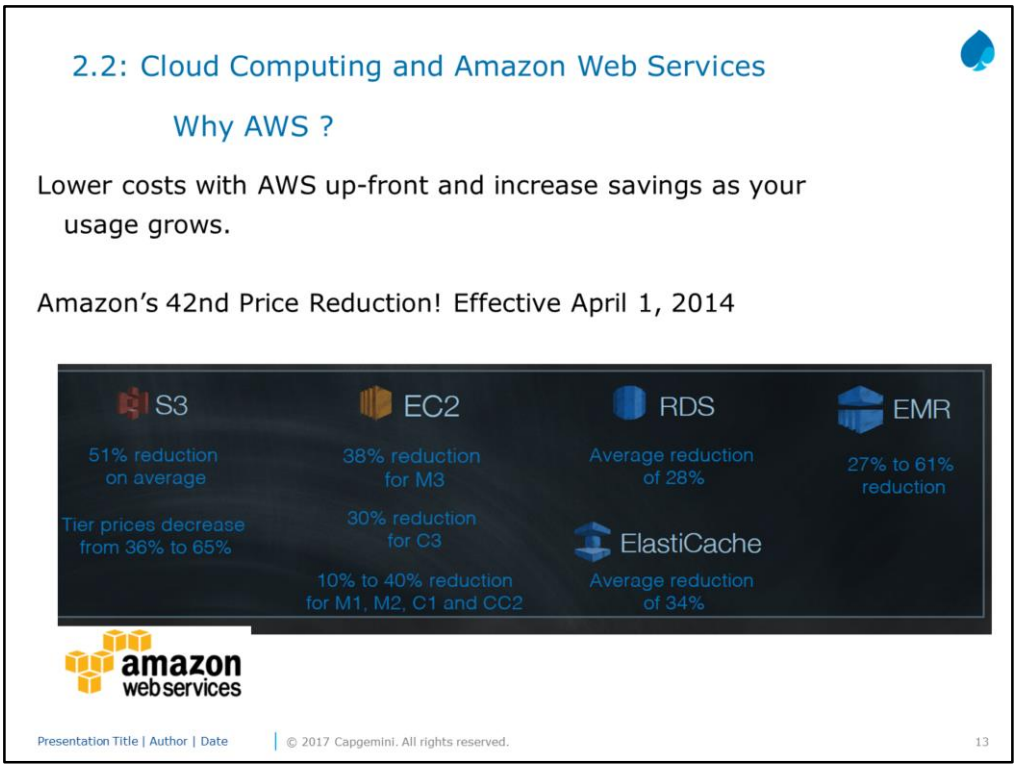

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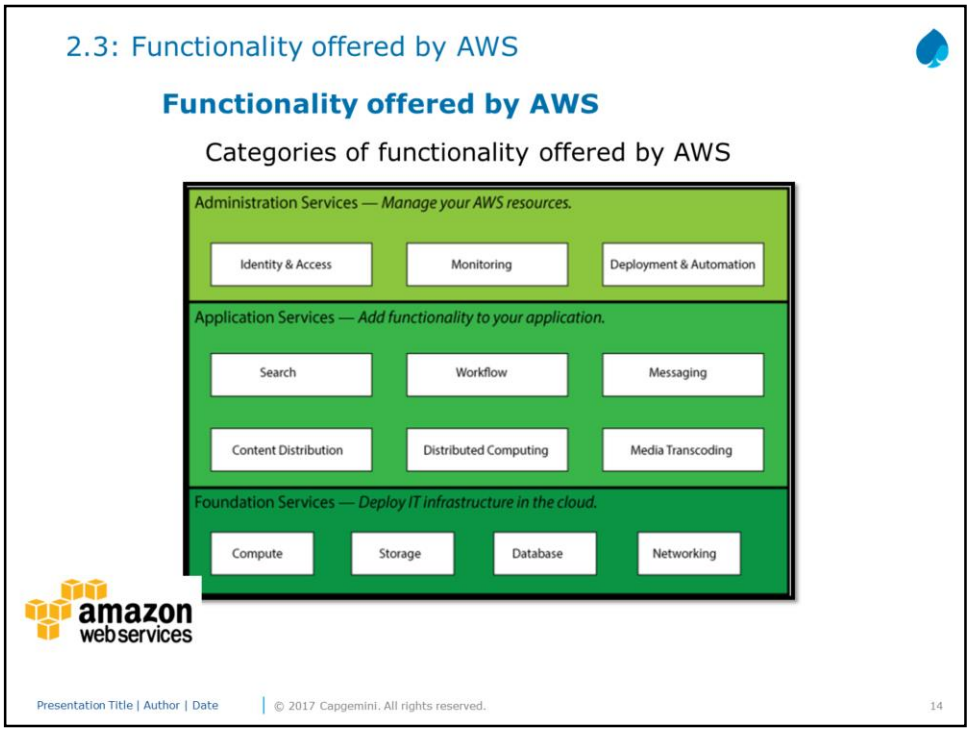
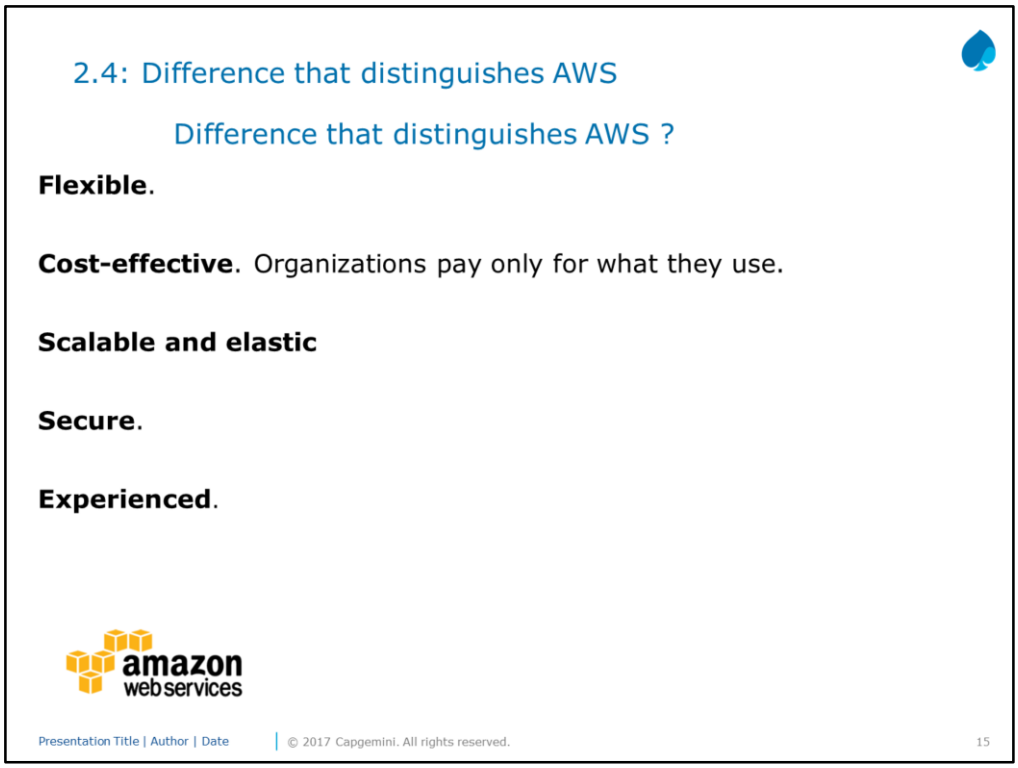


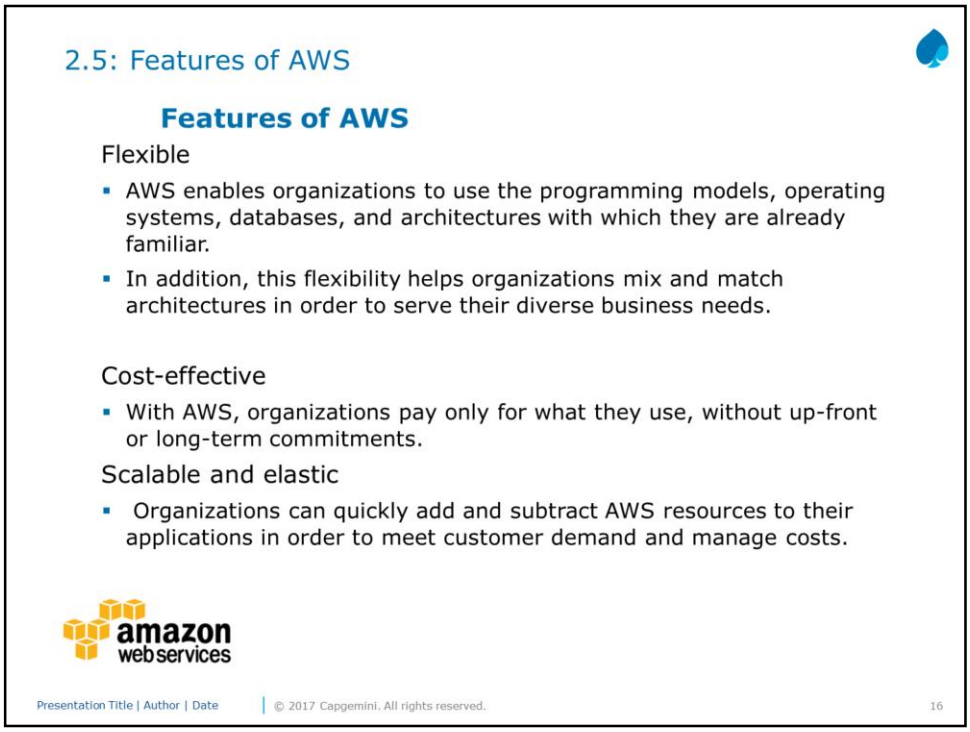
The diagram shows the categories of functionality offered by AWS. In each category, there are one or more services. For example, AWS offers five database services, each one optimized for a certain type of use. With so many offerings, you can design an AWS solution that is tailored to your needs.

Instructor Notes:



AWS is readily distinguished from other vendors in the traditional IT computing landscape because it is:
Flexible. AWS enables organizations to use the programming models, operating systems, databases, and architectures with which they are already familiar. In addition, this flexibility helps organizations mix and match architectures in order to serve their diverse business needs.
Cost-effective. With AWS, organizations pay only for what they use, without up-front or long-term commitments.
Scalable and elastic. Organizations can quickly add and subtract AWS resources to their applications in order to meet customer demand and manage costs.
Secure. In order to provide end-to-end security and end-to-end privacy, AWS builds services in accordance with security best practices, provides the appropriate security features in those services, and documents how to use those features.
Experienced. When using AWS, organizations can leverage Amazon's more than fifteen years of experience delivering large-scale, global infrastructure in a reliable, secure fashion.

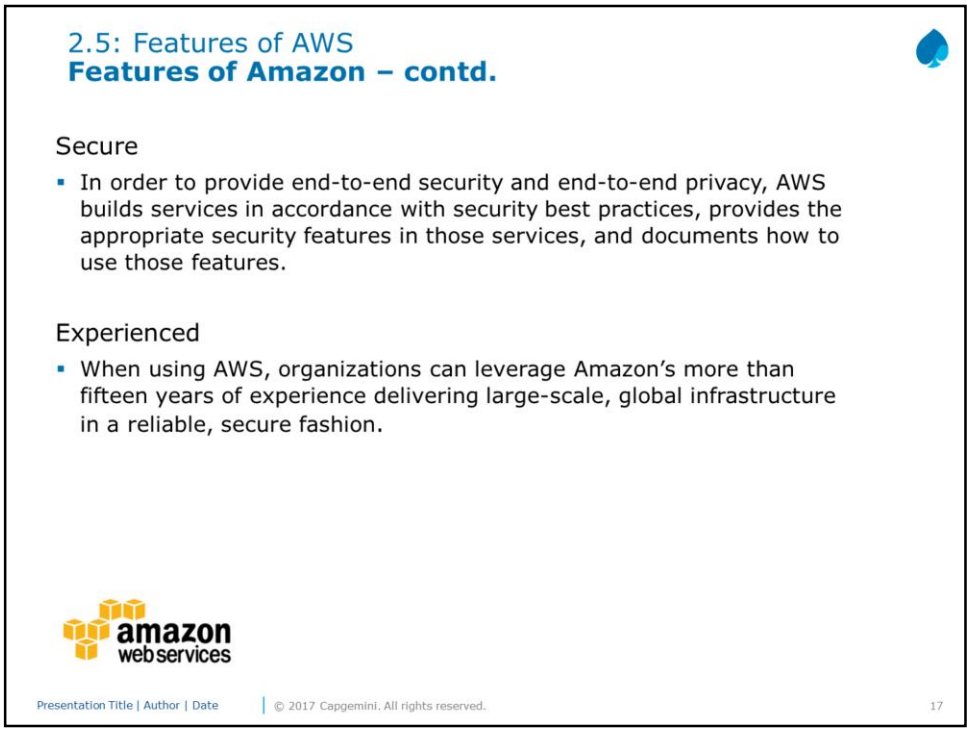
Instructor Notes:



Cost is one of the most complex elements of delivering IT solutions. The cloud provides an on-demand IT infrastructure that lets you consume only the amount of resources that you actually need. It is often difficult to predict requirements for the resources. As a result, we might provision too few resources, which has an impact on customer satisfaction, or we might provide too many resources and miss an opportunity to maximize return on investment (ROI) through full utilization.

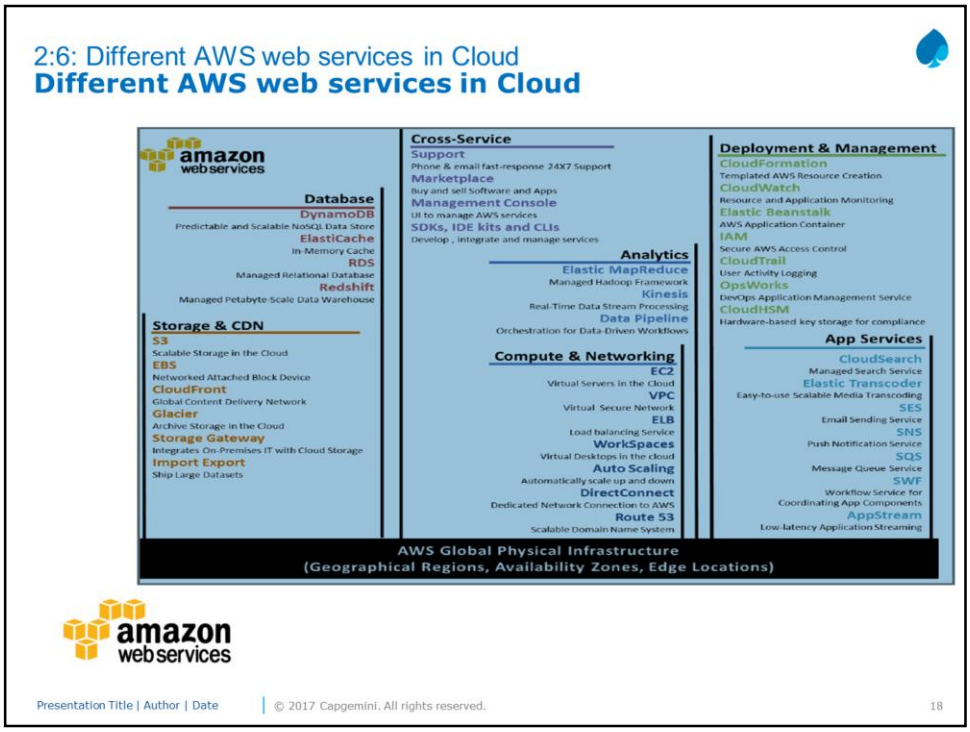
In the traditional IT organization, scalability and elasticity were often equated with investment and infrastructure. In the cloud, scalability and elasticity provide opportunity for savings and improved ROI. AWS uses the term elastic to describe the ability to scale computing resources up and down easily, with minimal friction. Elasticity helps you avoid provisioning resources up front for projects with variable consumption rates or short lifetimes. Instead of acquiring hardware, setting it up, and maintaining it in order to allocate resources to your applications, you use AWS to allocate resources using simple API calls.

Instructor Notes:



AWS delivers a scalable cloud-computing platform that provides customers with end-to-end security and end-to-end privacy. AWS builds security into its services in accordance with security best practices, and documents how to use the security features. It is important that you leverage AWS security features and best practices to design an appropriately secure application environment.

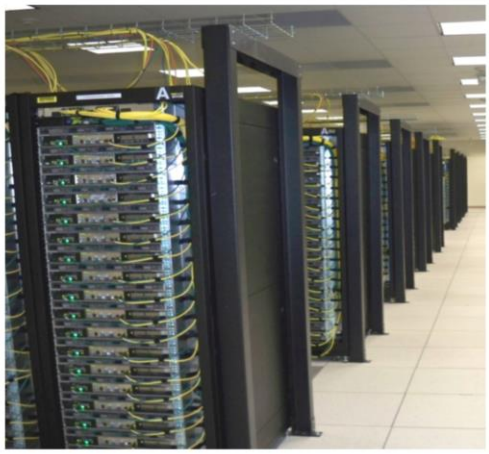
Instructor Notes:



Instructor Notes:

2.7: Global Infrastructure Perspective on Scaling

On average, AWS adds enough new server capacity every day to support Amazon's global infrastructure when it was a $7B business (2004)



amazon web services

Instructor Notes:

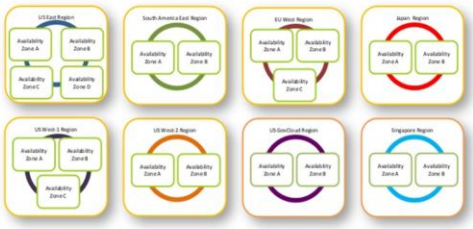
2.7: Global Infrastructure

AWS (Global Infrastructure)

Till Dec 2017

- Total Regions are 16
- Total Available Zones are 44
- Total Edged Zones are 96

AWS Regions and Availability Zones



Customer decides where applications and data reside

*Note: Conceptual drawing only, actual number of Availability Zones per Region may vary

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Instructor Notes:

2.7: Global Infrastructure
AWS (Global Infrastructure)

Region :-

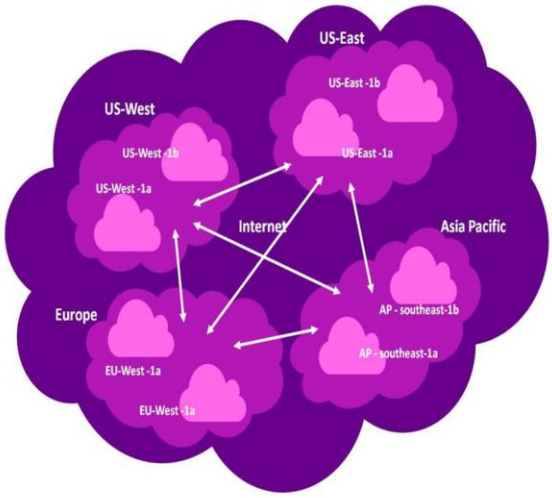
- It is a Geographical area .
- Each region consists of 2
- or more AZ(Availability Zones)

AZ :-

Each AZ is nothing but the data center .

EL :-

Edge Location are AWS endpoint where for caching contents .



amazon web services

Instructor Notes:

Summary

In this lesson, you have learnt:

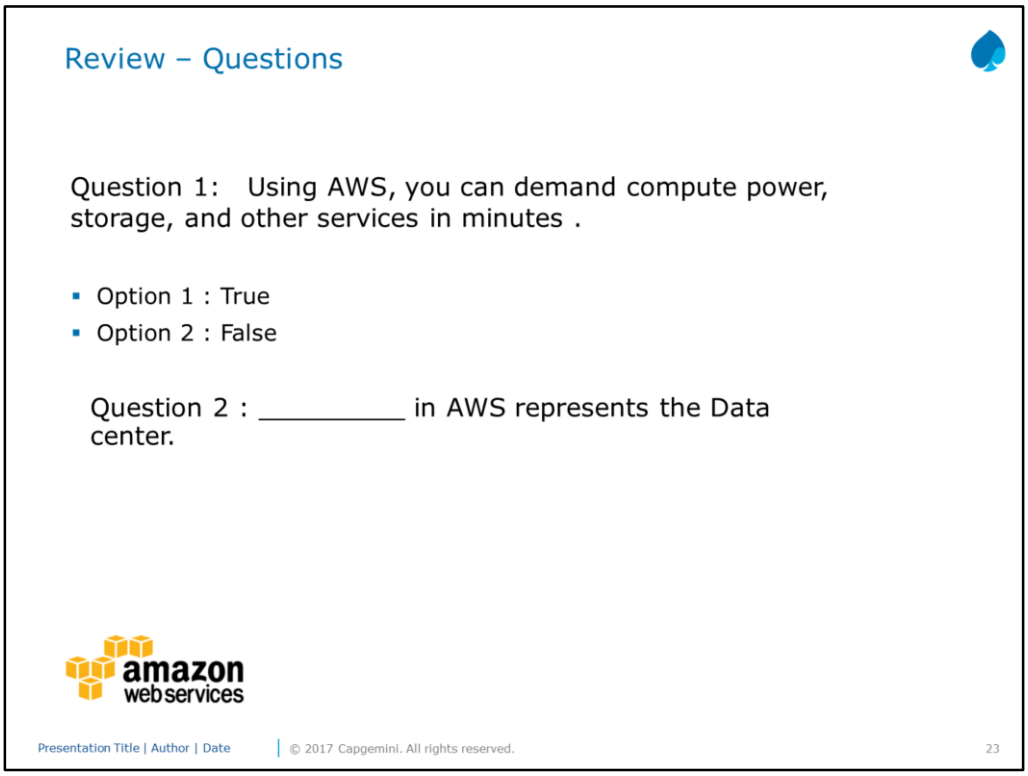
- Introduction to AWS
- Cloud Computing and Amazon Web Services
- Functionality offered by AWS
- The Differences that Distinguish AWS
- Features of AWS service
- Different AWS web services in Cloud
- AWS global infrastructure

Instructor Notes:

Answers for the Review Questions:

Answer 1: True

Answer 2: AZ



Instructor Notes:

Answers for the Review Questions:

Answer 3 Region

Answer 4: Option 2 : PAAS