AWS Technical Essentials

Lesson 1—Introduction to Cloud Computing

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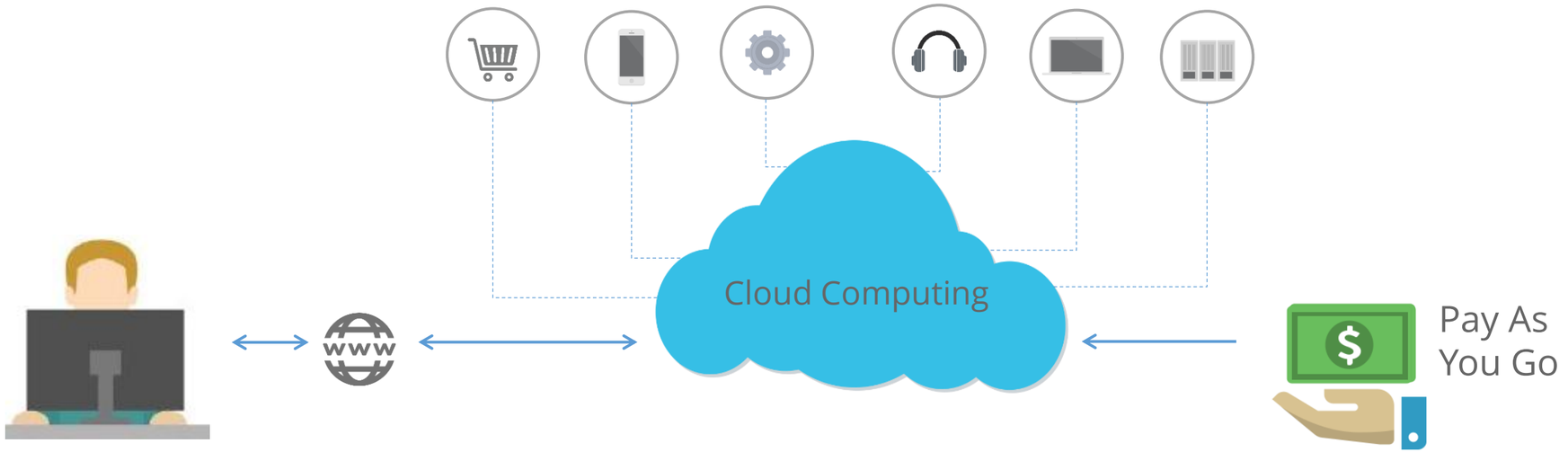
WHAT YOU'LL LEARN

- Cloud Computing
- History of AWS

Cloud Computing

Introduction to Cloud Computing

On-demand provisioning of IT resources and applications through the Internet.

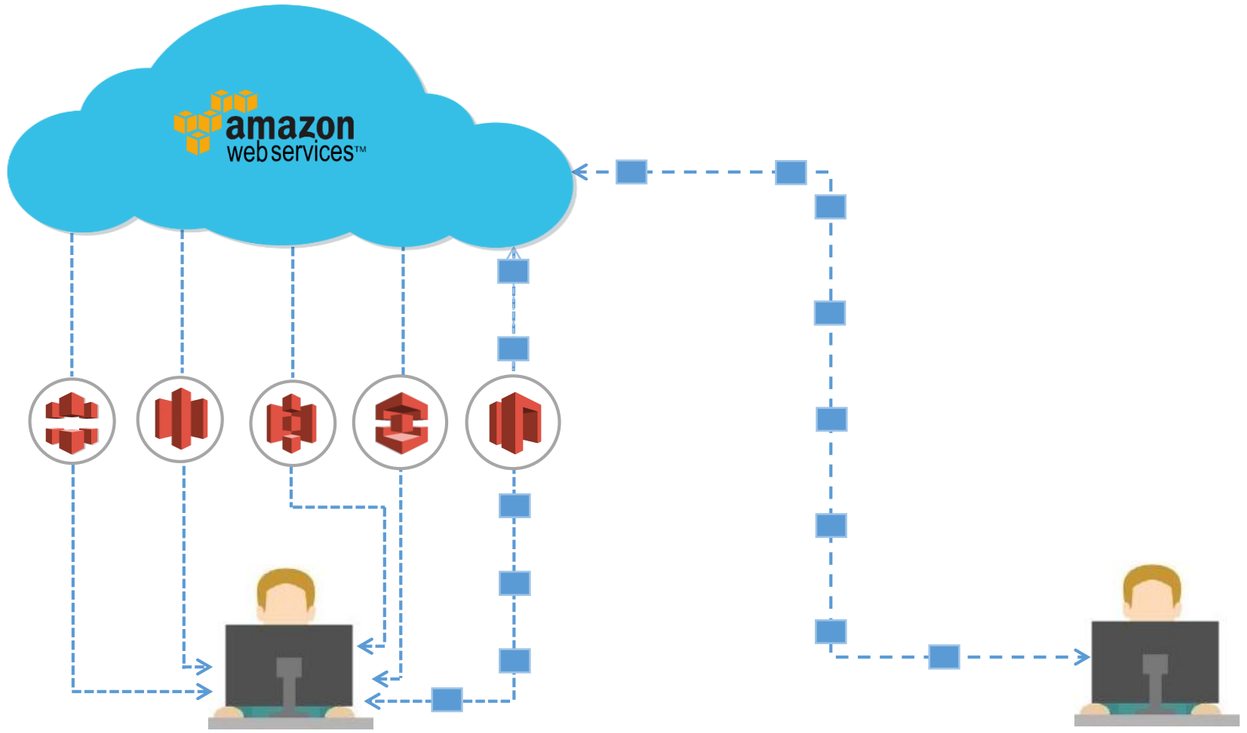


Cloud Computing facilitates:

- Quick access to cost-efficient and flexible IT resources
- Accessing servers, databases, storage media, and a variety of application services on the World Wide Web

Introduction to Cloud Computing

The providers of Cloud Computing such as Amazon Web Services (AWS), possess and maintain the hardware required for different services.



Determine the type and size of resources

Identify files to be stored as a backup on the Internet

Six Key Benefits of Cloud Computing

1. You do not incur capital expenses

2. You can take the advantage of economies of scale

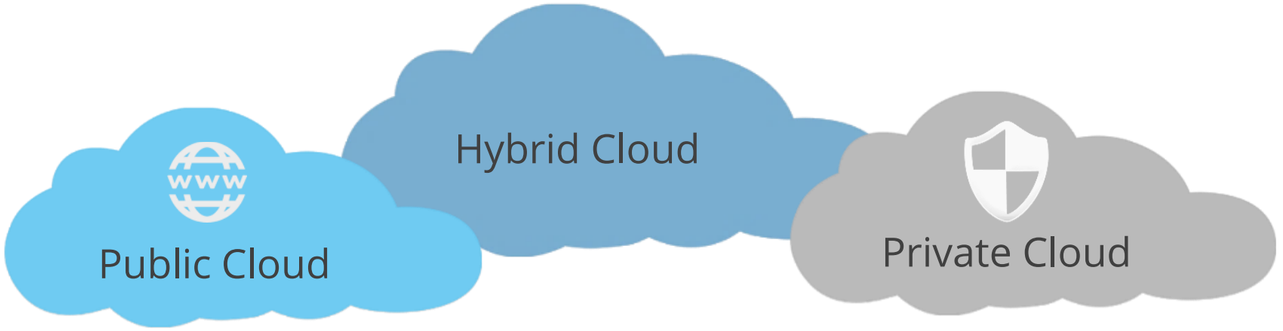
3. You can optimize the use of resources easily

4. You can effortlessly boost speed and agility

5. It becomes simpler to streamline processes

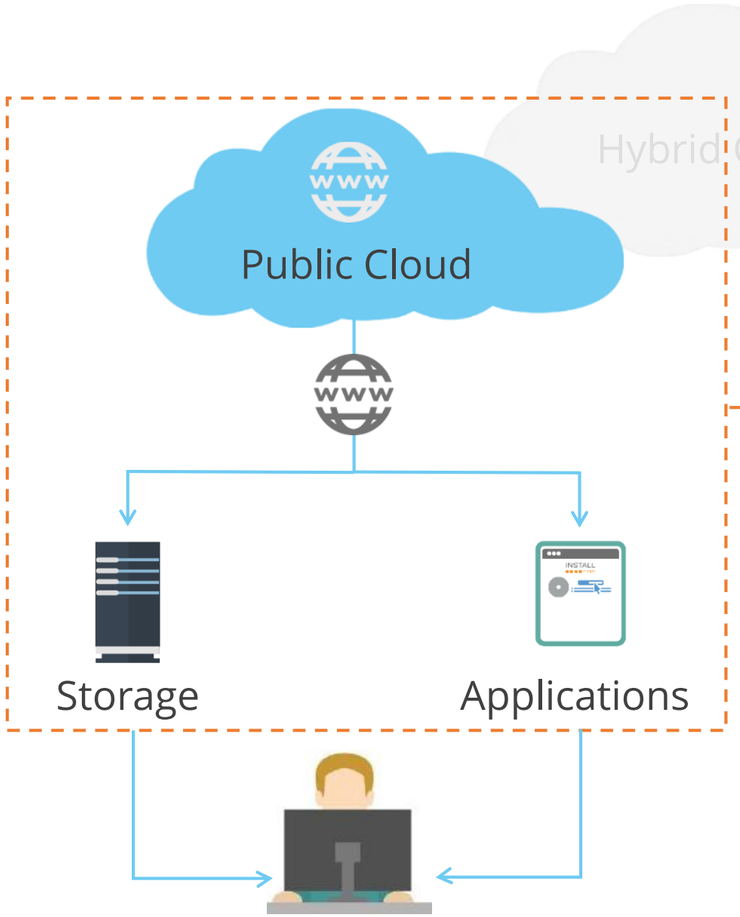
6. You can enjoy the freedom of going global in a few minutes

Three Forms of Cloud Computing



Depending on the type of data you need, it is essential to comprehend the three cloud types, in terms of levels of management and required security.

Three Forms of Cloud Computing

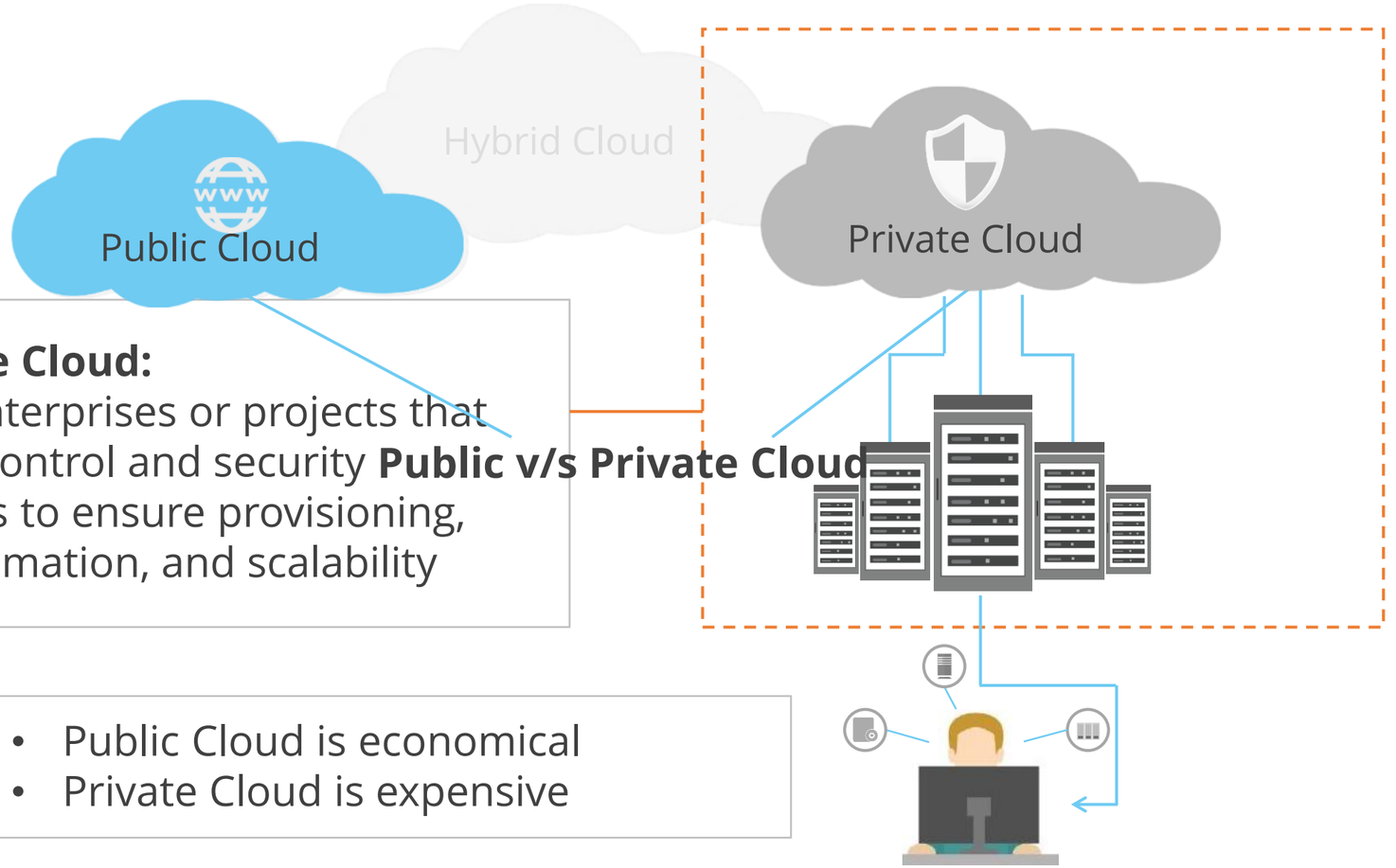


Benefits of Public Cloud:

- Ideal for sharing non-secured applications
- Testing application code

Windows Azure Services Platform, Amazon Elastic Compute Cloud or EC2, Sun Cloud, and IBM's Blue Cloud.

Three Forms of Cloud Computing

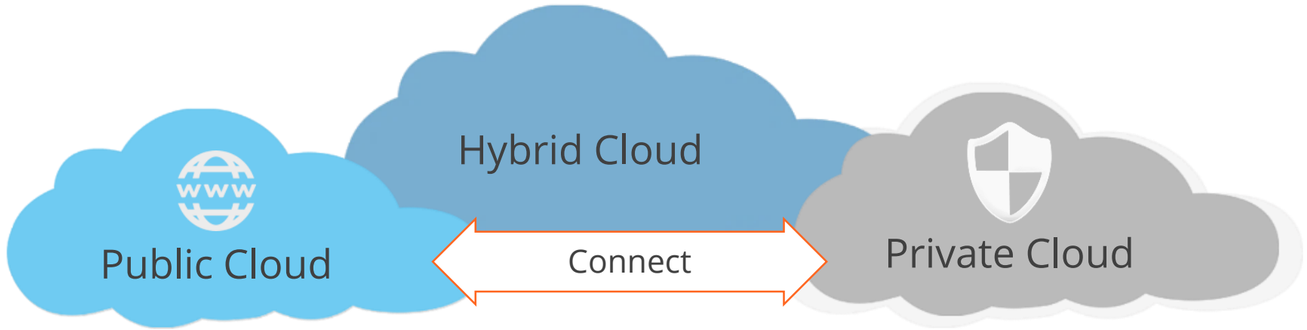


Benefits of Private Cloud:

- Ideal for large enterprises or projects that demand better control and security
- Helps companies to ensure provisioning, monitoring, automation, and scalability

- Public Cloud is economical
- Private Cloud is expensive

Three Forms of Cloud Computing



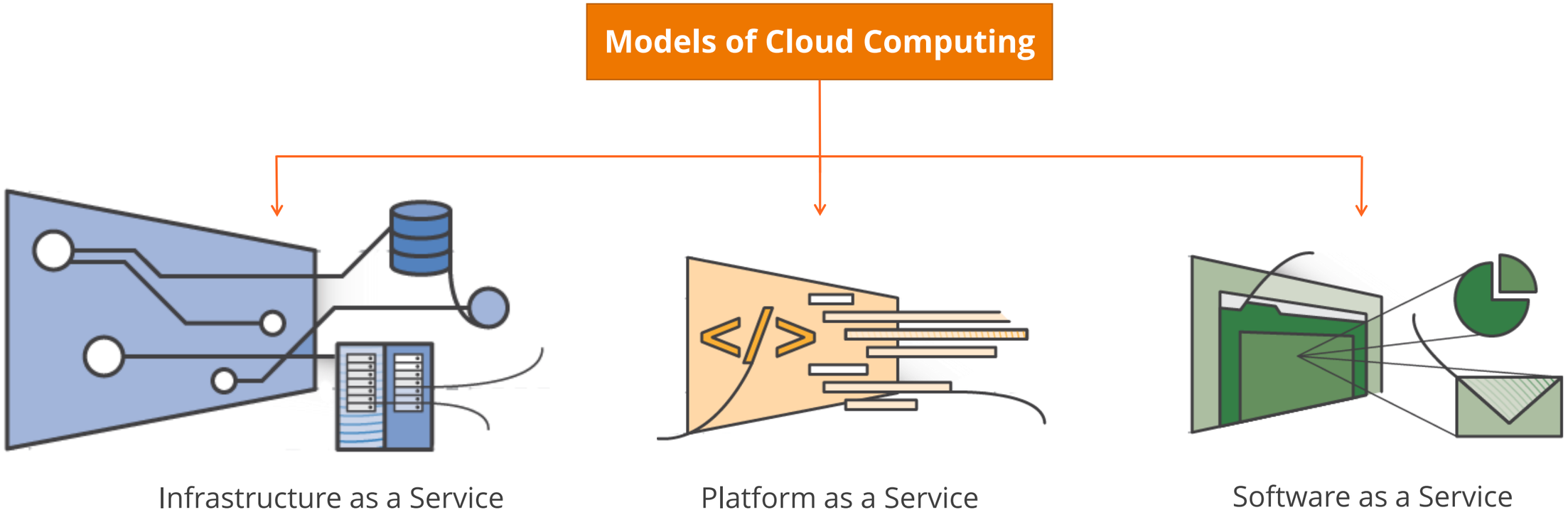
Public Cloud + Private Cloud

Benefits of Hybrid Cloud:

- Beneficial during forecasted unfavorable events such as scheduled Windows maintenance and hurricane warnings
- Cater to different market verticals

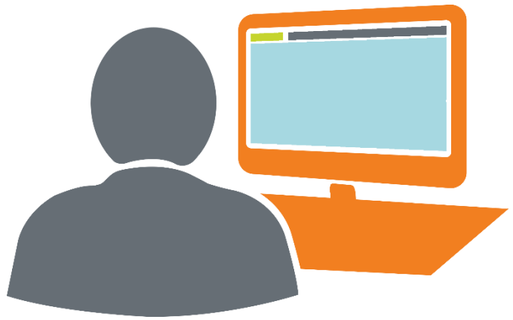
Models of Cloud Computing

Cloud computing has three models to fulfil the needs of different users. Each of these models come with different levels of management, control, and flexibility.



Infrastructure as a Service

Infrastructure as a Service (IAAS) offers access to networking features, data storage space, and different computers.



Hardware as a Service

Highest Level of Control and Flexibility

IAAS is similar to the prevailing IT resources known to several IT developers.

Platforms as a Service

Platforms as a Service is responsible for allowing organizations to focus on managing and deploying applications.

Increases the Overall Efficiency

Capacity Planning

Resource Procurement

Tasks of running an application

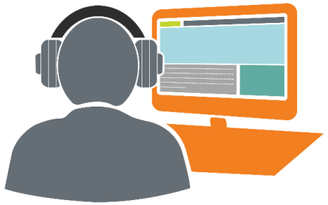
Software as a Service

Software as a Service refers to end-user applications that are run and managed by service providers.

It eliminates the need to think:

How to Maintain a Specific Application or Service

How to Manage the Underlying Infrastructure

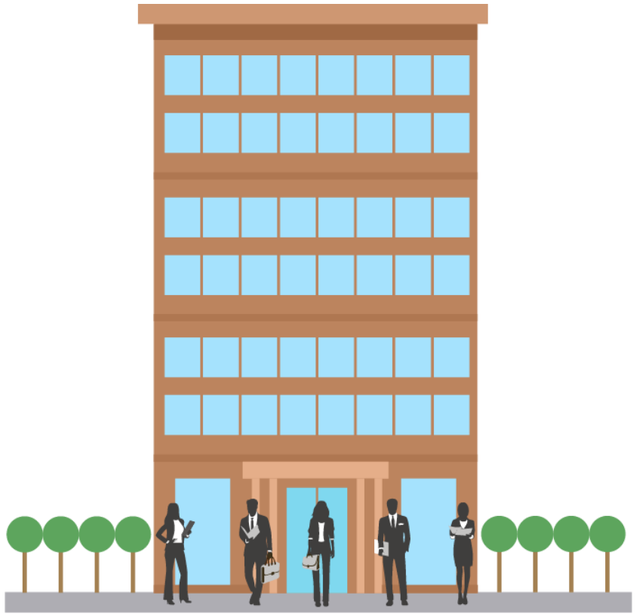


How to Use the Application or Software

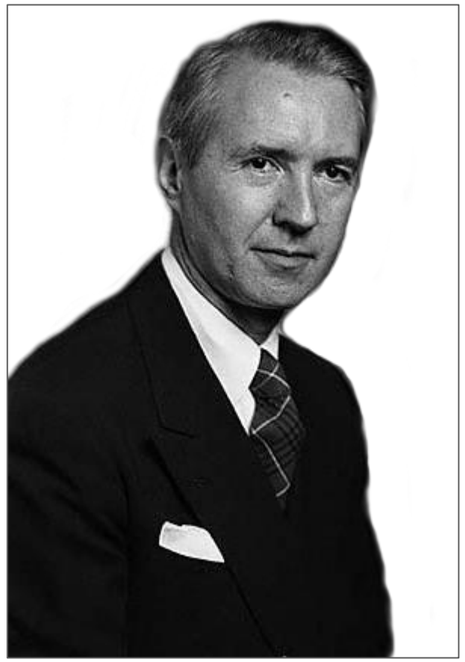
An example is an online service to send and receive messages without managing feature additions to the application or maintaining the servers on which it is running.

History of AWS

History of AWS



IT industry



Jacques Barzun

amazon web services™

"We gather historical knowledge, not to make us cleverer the next time, but wiser for all times."

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History of AWS

Officially launched

2006

amazon web services™

Initiated

2003

Chris Pinkham

Benjamin Black

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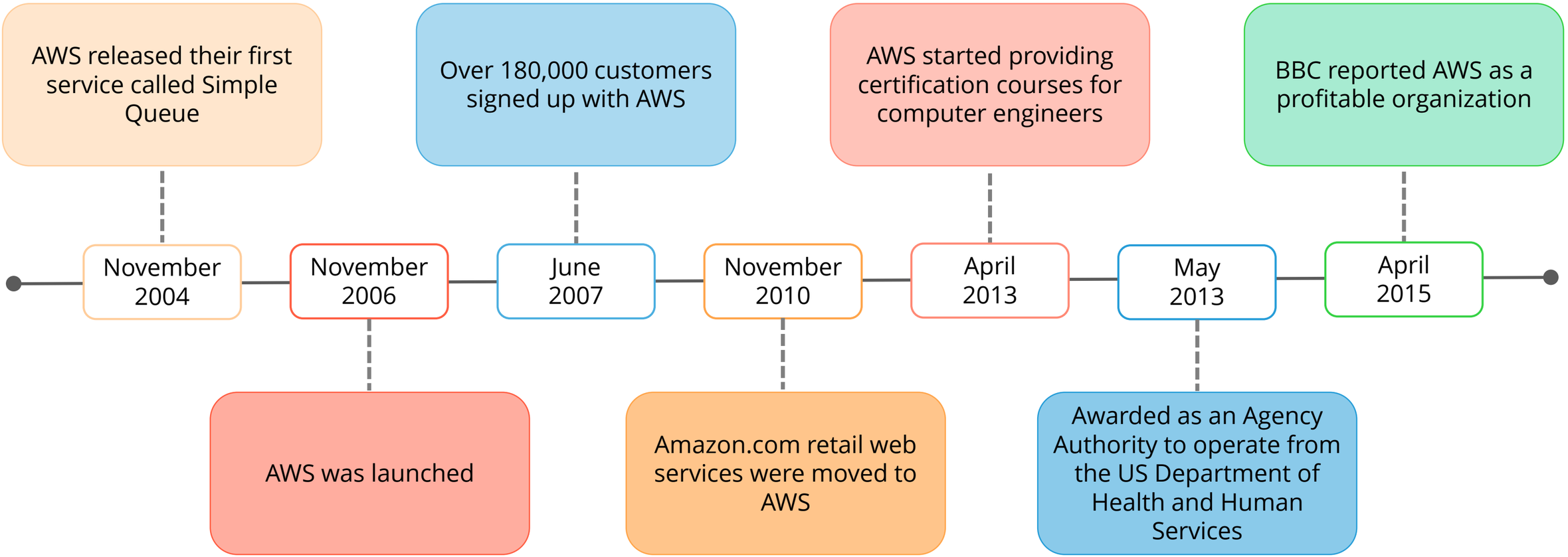
Chronological Milestone Events in AWS History



Knowledge Check

KNOWLEDGE CHECK 1

From the following options, identify the benefit of Public Clouds.

a. Share non-secured applications

b. Provision of and monitor applications

c. Greater control and security

d. All of the above

KNOWLEDGE CHECK

From the following options, identify the benefit of Public Clouds.

a. Share non-secured applications

b. Provision of and monitor applications

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d. All of the above

The correct answer is **a.**

Explanation: A public cloud is ideal for sharing non-secured applications and testing application code.

KNOWLEDGE CHECK 2

Which of the following clouds is a mix of public and private cloud services?

a. On-Premises Data centers and Public Cloud

b. On-Premises Data centers and Private Cloud

c. Sun Cloud

d. Hybrid Cloud

KNOWLEDGE CHECK

Which of the following clouds is a mix of public and private cloud services?

a. On-Premises Data centers and Public Cloud

b. On-Premises Data centers and Private Cloud

c. Sun Cloud

d. Hybrid Cloud

The correct answer is **d.**

Explanation: A hybrid cloud is a mix of public and private cloud services offered by multiple providers.

KNOWLEDGE CHECK 3

In which of the following year, the process of Amazon web services was initiated?

a. 2004

b. 2006

c. 2003

d. 2007

KNOWLEDGE CHECK

In which of the following year, the process of Amazon web services was initiated?

a. 2004

b. 2006

c. 2003

d. 2007

The correct answer is **c.**

Explanation: Amazon Web Services were officially launched in the year 2006. However, the process was initiated in 2003 by Chris Pinkham and Benjamin.

Quiz

QUIZ 1

From the following options, identify the benefit of Public Clouds.

a. Share non-secured applications

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QUIZ 2

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The correct answer is • **d**

Explanation: A hybrid cloud is a mix of public and private cloud services offered by multiple providers.

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c. 2003

d. 2007

The correct answer is • **c**

Explanation: Amazon Web Services were officially launched in the year 2006. However, the process was initiated in 2003 by Chris Pinkham and Benjamin.

QUIZ 4

Which of the following provides the highest level of security and control?

a. Public Cloud

b. Private Cloud

c. Hybrid Cloud

d. Sun Cloud

QUIZ 4

Which of the following provides the highest level of security and control?

a. Public Cloud

b. Private Cloud

c. Hybrid Cloud

d. Sun Cloud

The correct answer is **b.**

Explanation: When compared with a public cloud, a private cloud provides the highest level of security and control.

QUIZ 5

Which of the following is NOT a cloud computing model?

a. Infrastructure as a Service

b. Hardware as a Service

c. Software as a Service

d. Platform as a Service

QUIZ 5

Which of the following is NOT a cloud computing model?

a. Infrastructure as a Service

b. Hardware as a Service

c. Software as a Service

d. Platform as a Service

The correct answer is **b.**

Explanation: Infrastructure as a Service, Platform as a Service, and Software as a Service are the three cloud computing models.

Key Takeaways

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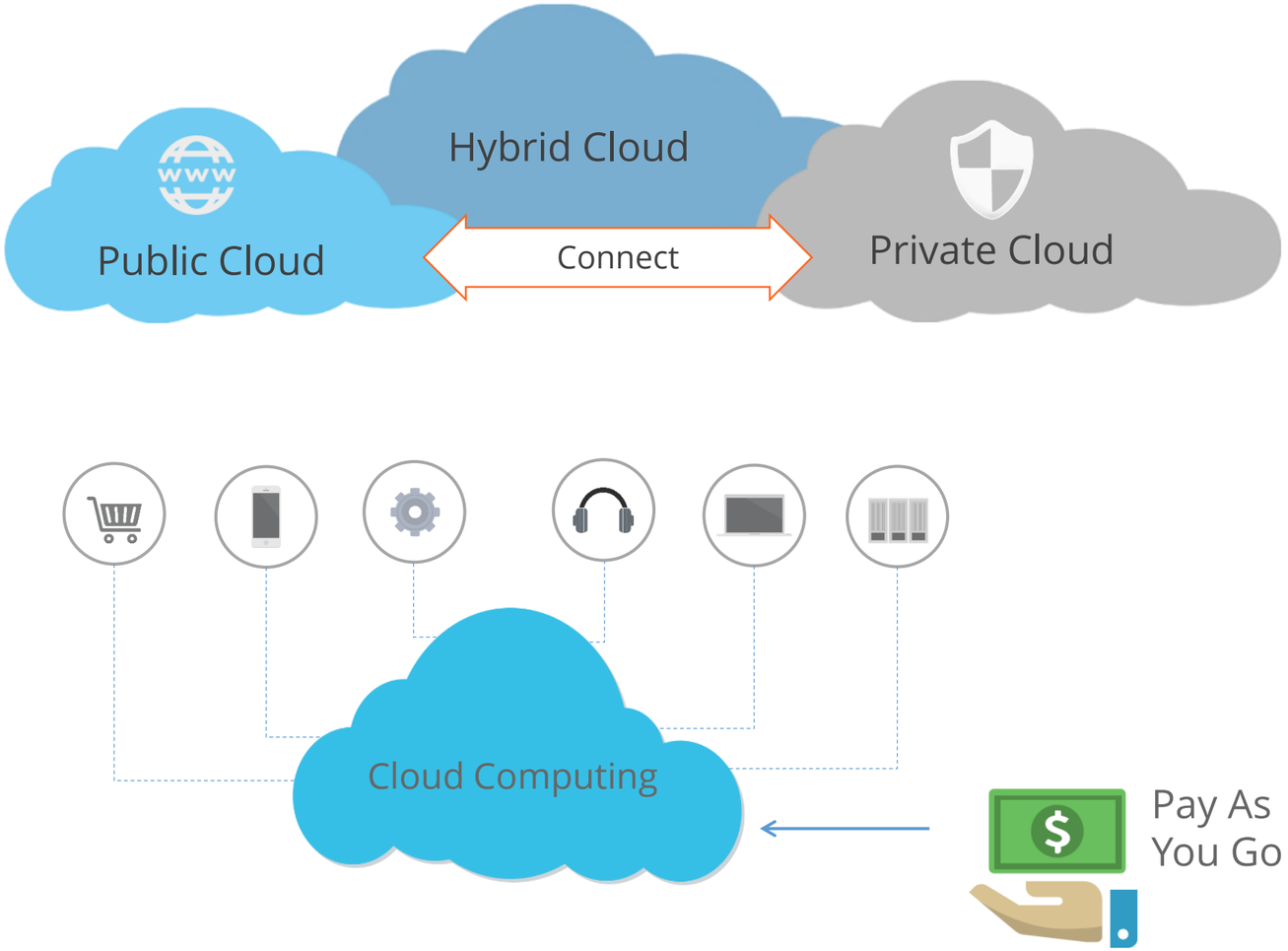
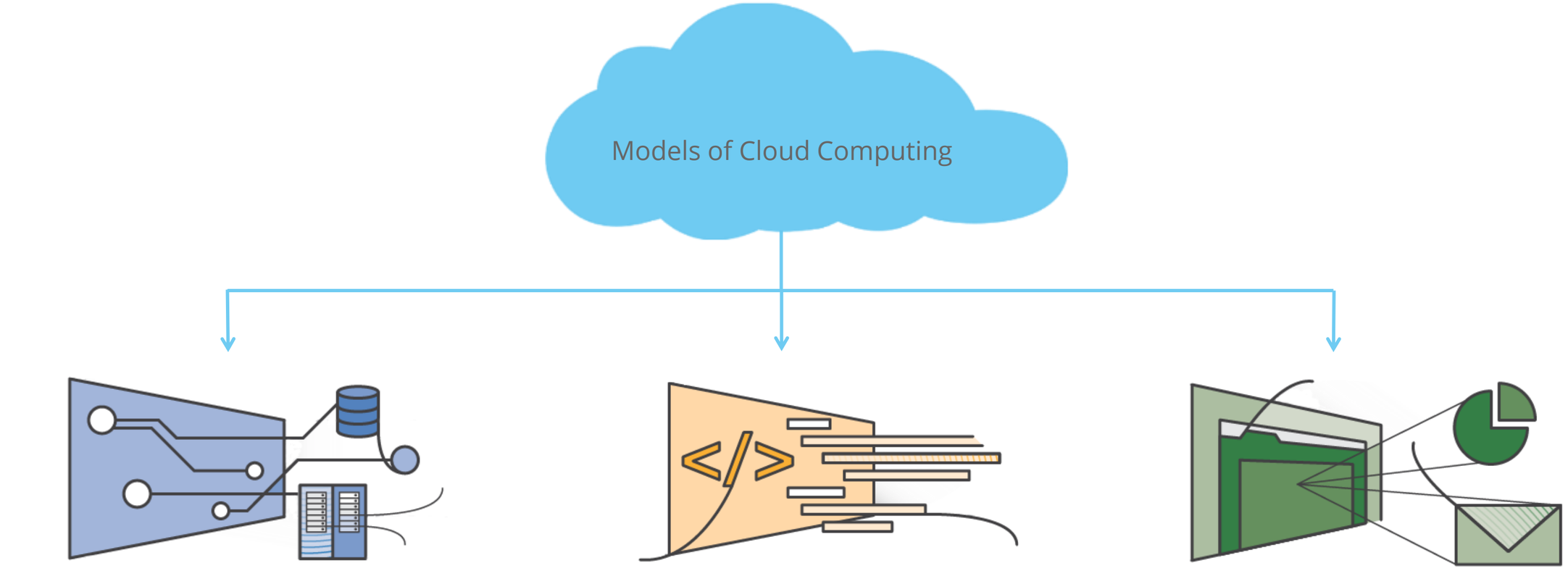
Cloud computing makes the IT resources available on demand through a public, private, or hybrid cloud and with a “pay-as-you-go” scheme.



Key Takeaways

Infrastructure as a Service, Platform as a Service, and Software as a Service are three cloud computing models.



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Key Takeaways

Cloud computing makes the IT resources available on demand through a public, private, or hybrid cloud and with a “pay-as-you-go” scheme.

Infrastructure as a Service, Platform as a Service, and Soft as a Service are three cloud computing models.

This Concludes 'Introduction to Cloud Computing.'

The Next Lesson Is 'Introduction to AWS.'