**\*\*This study guide is based on the video lesson available on TrainerTests.com\*\***

**Study Guide: Introduction to Amazon Web Services**

*Defining Amazon Web Services (AWS)*

- AWS is a cloud service provider that offers a range of computing, storage, and networking services.
- It allows users to access these services on-demand without the need to invest in physical infrastructure.

**Section 2: Cloud Computing Simplified**

*The Utility Provider Analogy*

- Comparing AWS to traditional infrastructure is akin to the difference between generating your own power and using a utility provider.
- Using AWS is cost-efficient, eliminating the need for upfront hardware investments, physical space, and infrastructure management.

*Challenges with Traditional Data Centers*

- Traditional data centers require extensive physical security, power, cooling, redundancy, and floor space.
- Ongoing expenses include hardware maintenance, support agreements, and hardware replacement.

**Section 3: Pay-As-You-Go Model**

*Scalability and Efficiency*

- AWS adopts a pay-as-you-go model, where you only pay for the resources you consume when you need them.
- This eliminates overprovisioning and ensures cost efficiency.

*Restaurant Analogy*

- Using a restaurant analogy, building for peak demand requires significant overbuilding, which is costly and inefficient.
- Elasticity in AWS allows resources to expand and contract as needed, saving costs and ensuring peak performance.

**Section 4: Focus on Core Business Goals**

*Aligning with Organizational Goals*

- The primary objective of most organizations is not managing data centers but achieving their core business goals.
- AWS allows businesses to offload data center management to professionals, freeing up resources to focus on their primary mission.

*Shifting the Focus*

- When the complexities of data center management are delegated to experts, businesses can work on optimizing applications and services.
- Rapid responses to changes, new features, and software enhancements become more achievable.

**Chapter Review and Key Takeaways**

- AWS is a leading cloud service provider that offers a range of computing, storage, and networking services.
- Cloud computing simplifies IT operations by adopting a utility provider model, eliminating the need for extensive physical infrastructure.
- AWS's pay-as-you-go model ensures cost efficiency and scalability, eliminating overprovisioning.
- The focus on core business goals becomes easier with AWS as data center management is handled by professionals.
- AWS enables businesses to respond rapidly to changing demands and achieve their core business objectives.

In this chapter, we've explored the fundamental concepts of AWS and its benefits. AWS simplifies IT operations, provides cost efficiency, and allows organizations to focus on their core business goals. Understanding the paradigm shift from traditional data centers to cloud computing is essential for harnessing the full potential of AWS.
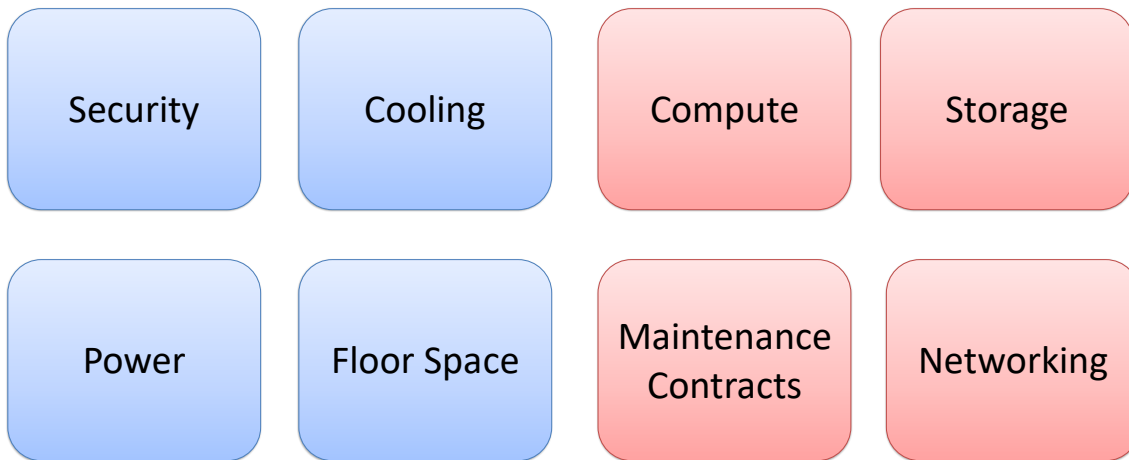
# What is AWS?

Rick Crisci

## Amazon Web Services

- Cloud service provider
- Move workloads away from a physical datacenter to the cloud
- Pay for the services you need
- Compare to a utility provider

# Costs of Physical Datacenters

| | | | |
|---|---|---|---|
| Security | Cooling | Compute | Storage |
| Power | Floor Space | Maintenance Contracts | Networking |

# OverProvisioning

# Elasticity in a Physical Datacenter

| | | |
|---|---|---|
| ESXi | ESXi | ESXi |
| ESXi | ESXi | ESXi |
| ESXi | ESXi | ESXi |
| ESXi | ESXi | ESXi |
| ESXi | ESXi | ESXi |

# Elasticity with AWS

- No need to overprovision hardware
- Plenty of resources available at a moment's notice
- No need to rack and cable
- The cost contracts automatically with your usage

# The True Information System Goal



# Expertise and Systems