Module 1: Cloud Concepts Overview

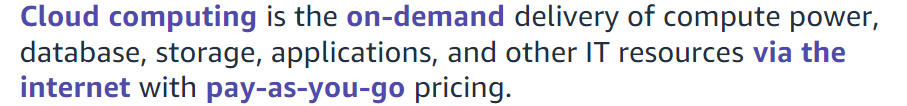
After completing this module, you should be able to:

• Define different types of cloud computing

• Describe six advantages of cloud computing

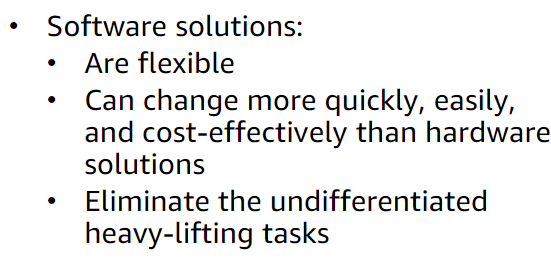
• Recognize the main AWS service categories and core services

• Review the AWS Cloud Adoption Framework (AWS CAF)

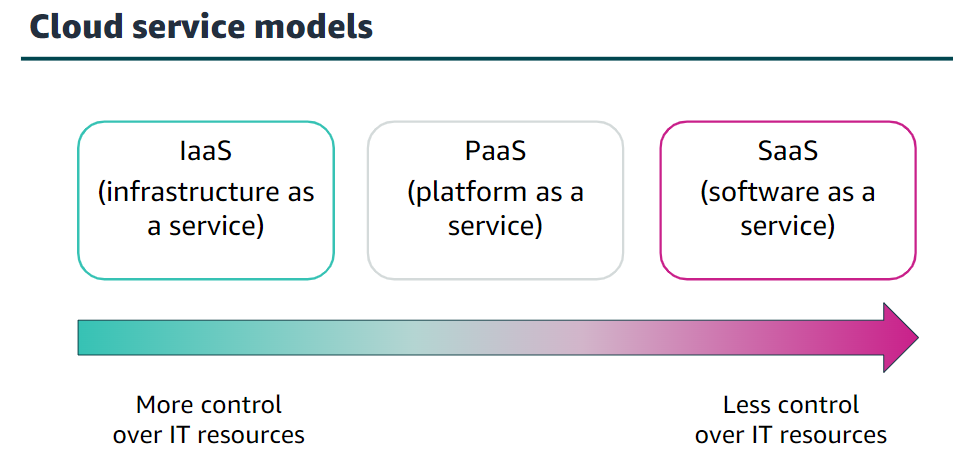


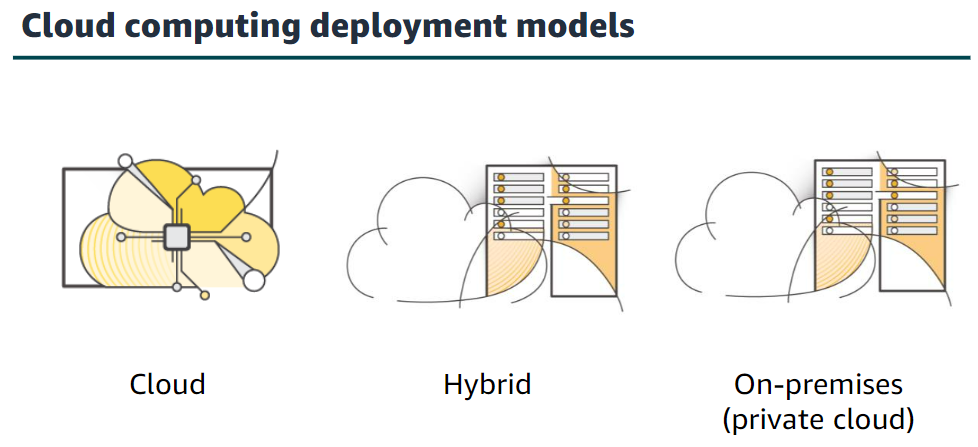
Cloud computing enables you to stop thinking of your infrastructure as hardware, and instead think of (and use) it as software.

With a hardware solution, you must ask if there is enough resource capacity or sufficient storage to meet your needs, and you provision capacity by guessing theoretical maximum peaks. If you don’t meet your projected maximum peak, then you pay for expensive resources that stay idle. If you exceed your projected maximum peak, then you don’t have sufficient capacity to meet your needs. And if your needs change, then you must spend the time, effort, and money required to implement a new solution.



Cloud computing helps developers and IT departments avoid undifferentiated work like procurement, maintenance, and capacity planning, thus enabling them to focus on what matters most.



* Infrastructure as a service (IaaS): Services in this category are the basic building blocks for cloud IT and typically provide you with access to networking features, computers (virtual or on dedicated hardware), and data storage space.
* Platform as a service (PaaS): Services in this category reduce the need for you to manage the underlying infrastructure (usually hardware and operating systems) and enable you to focus on the deployment and management of your applications.
* Software as a service (SaaS): Services in this category provide you with a completed product that the service provider runs and manages. In most cases, software as a service refers to end-user applications. With a SaaS offering, you do not have to think about how the service is maintained or how the underlying infrastructure is managed   
    
  
* Cloud: A cloud-based application is fully deployed in the cloud, and all parts 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 infrastructure to take advantage of the benefits of cloud computing
* Hybrid: The most common method of hybrid deployment is between the cloud and existing on-premises infrastructure. This model enables an organization to extend and grow their infrastructure into the cloud while connecting cloud resources to internal systems.