

Cloud And Azure Fundamentals: Cloud Concepts

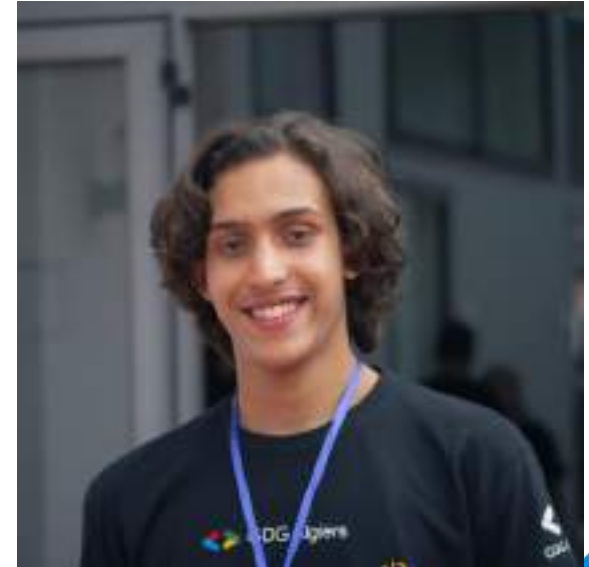
Chamel Nadir Bouacha



Introduction

Chamel Nadir Bouacha

4th year student (SIL) at ESI
Beta MLSA
Co-Lead at GDG Algiers Club



Outline

History Of Cloud Computing

Cloud Service Models

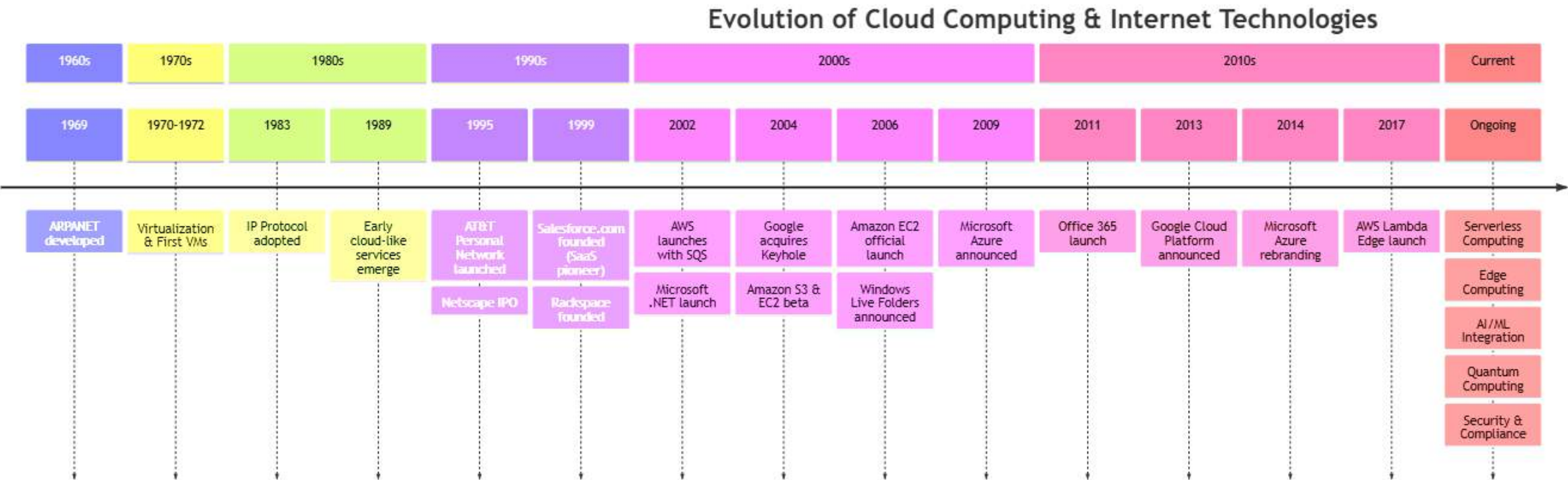
Types of Cloud Computing

Benefits of Cloud Computing

Conclusion



History of Cloud Computing



Cloud Service Models

What is cloud computing



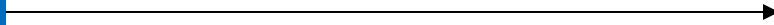
Cloud Service Models

What is cloud computing



Cloud Service Models

What is cloud computing



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What is cloud computing



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Cloud Service Models

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Cloud Service Models

What is cloud computing

Same as Cloud Computing



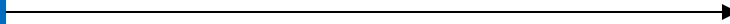
Cloud Service Models

What is cloud computing



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Cloud Service Models

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Cloud Service Models

What is cloud computing

Seems infinite right ?



Cloud Service Models

What is cloud computing

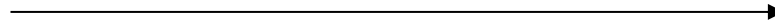
Any Project needs



Cloud Service Models

What is cloud computing

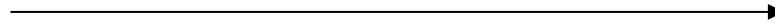
Any Project needs



Cloud Service Models

What is cloud computing

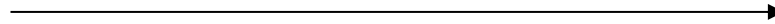
Any Project needs



Cloud Service Models

What is cloud computing

Any Project needs



Cloud Service Models

What is cloud computing



Cloud Service Models

What is cloud computing



Cloud Service Models

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Cloud Service Models

What is cloud computing



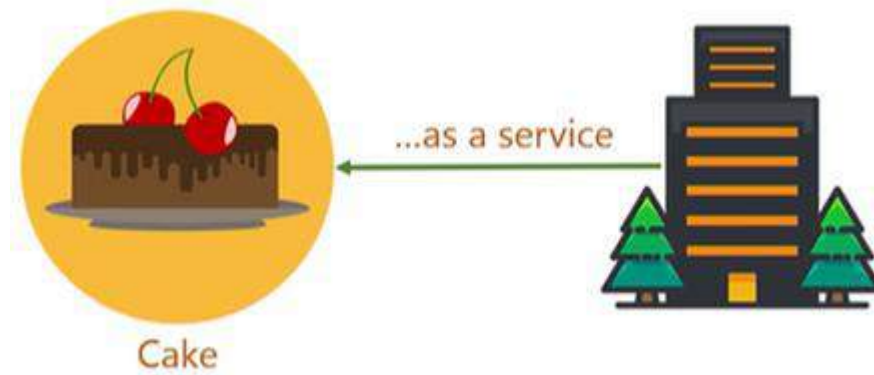
Cloud Service Models

What is cloud computing



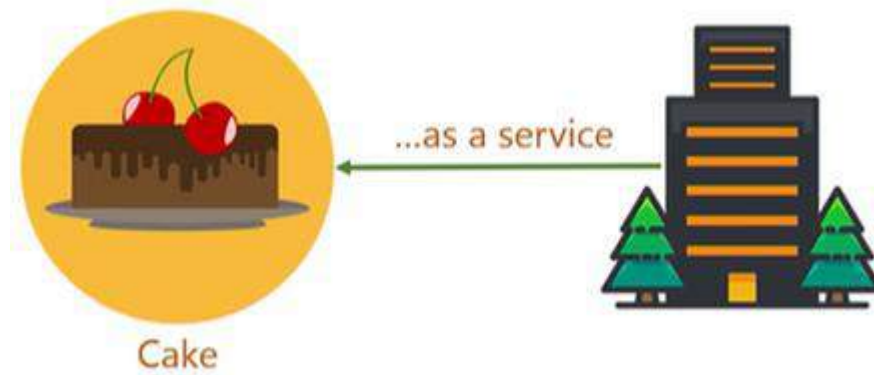
Cloud Service Models

What is cloud computing



Cloud Service Models

What is cloud computing



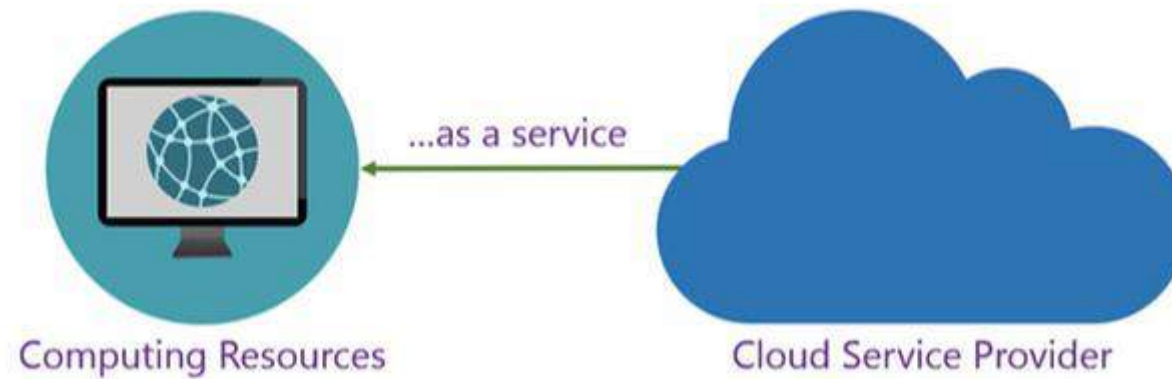
Cloud Service Models

What is cloud computing



Cloud Service Models

What is cloud computing



Cloud Service Models

What is cloud computing

Cloud computing is the delivery of computing resources as a service by a Cloud Service Provider (CSP), such as Microsoft Azure.



Cloud Service Models

What is cloud computing

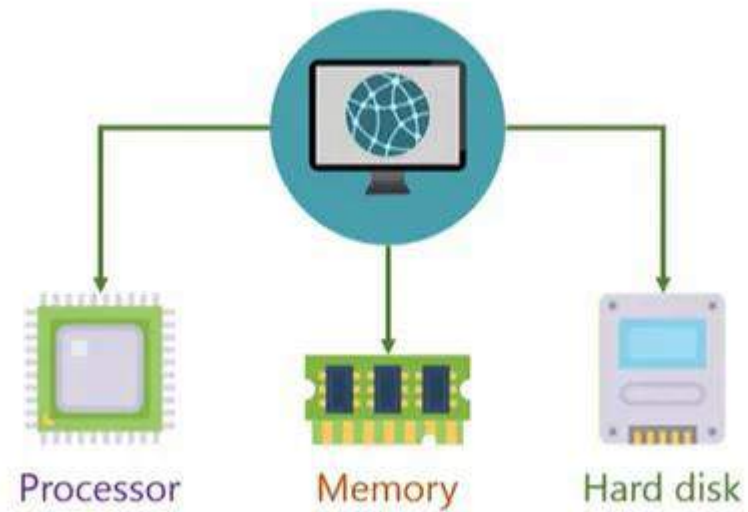
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How ?



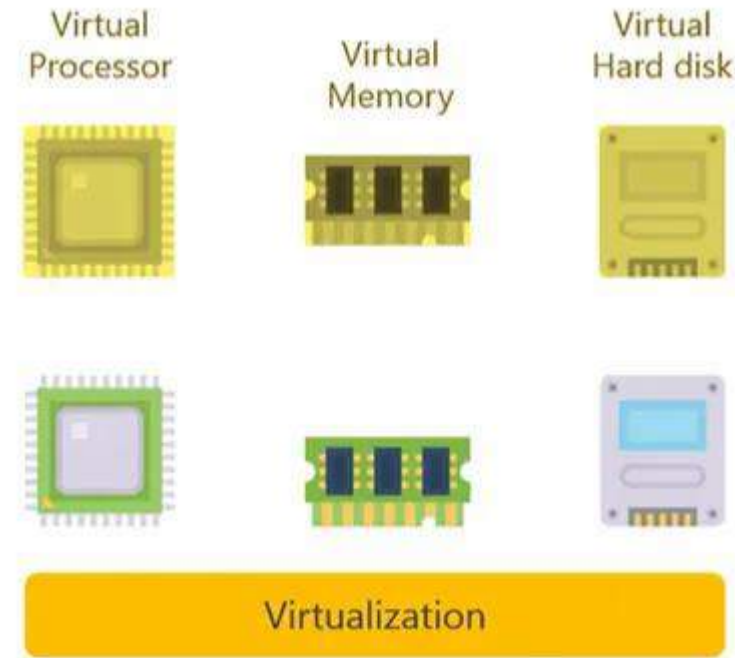
Cloud Service Models

Virtualization !!



Cloud Service Models

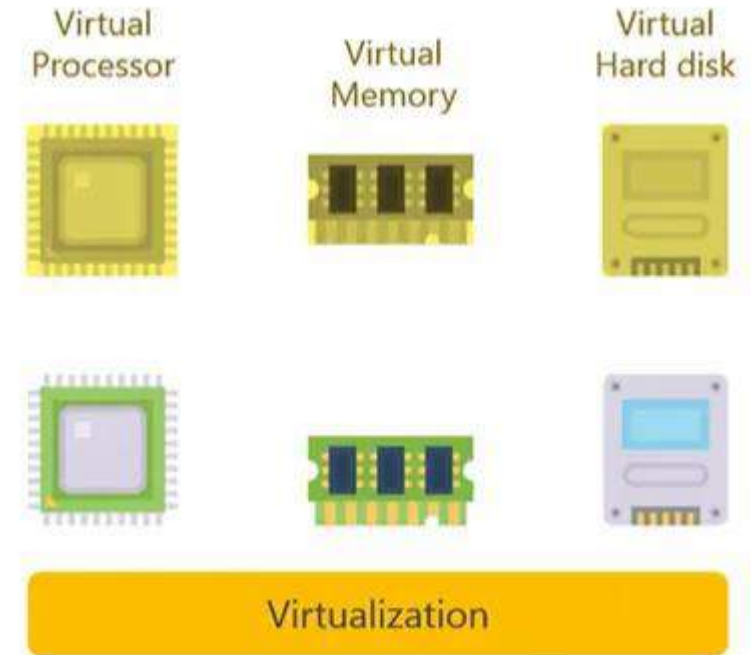
Virtualization !!



Cloud Service Models

Virtualization !!

It is software copies of the real pieces and function same as real ones , since they are virtual , we can provision them over network



Cloud Service Models

Key characteristics of cloud computing



Resource Pooling

Cloud Service Models

Key characteristics of cloud computing



Resource Pooling



Cloud Service Models

Key characteristics of cloud computing



Resource Pooling

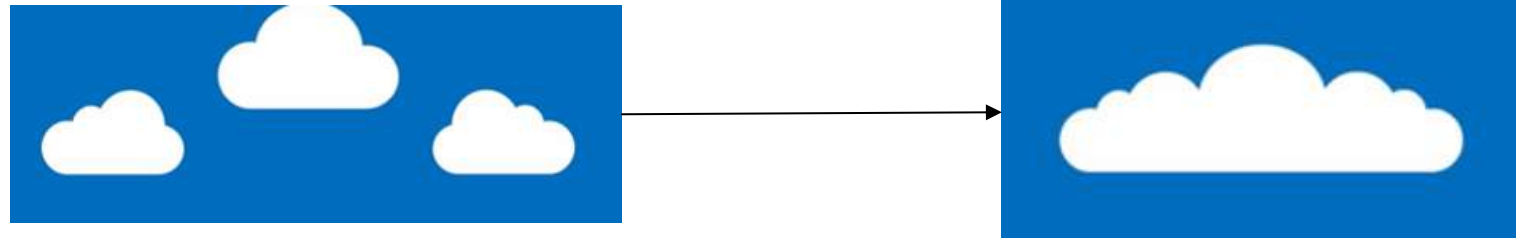


Cloud Service Models

Key characteristics of cloud computing



Resource Pooling

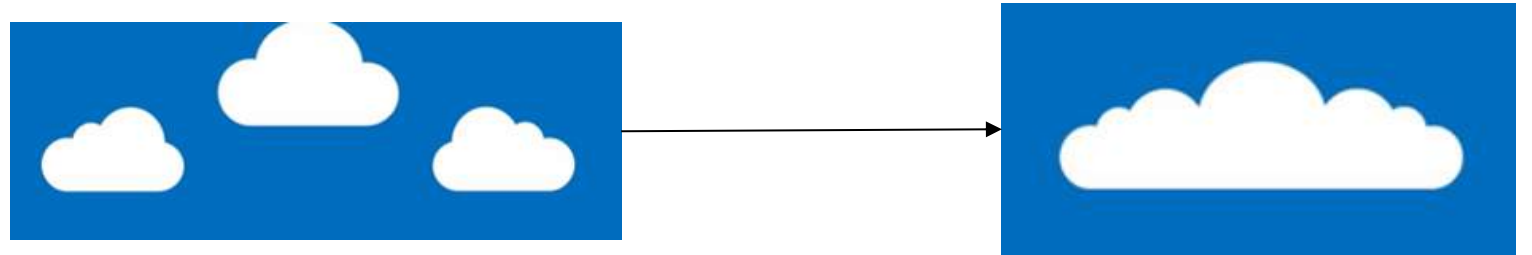


Cloud Service Models

Key characteristics of cloud computing



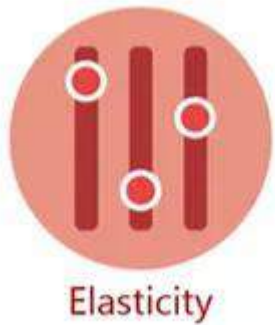
Resource Pooling



Combining physical computing resources into a virtualized pool that can be provisioned as needed.

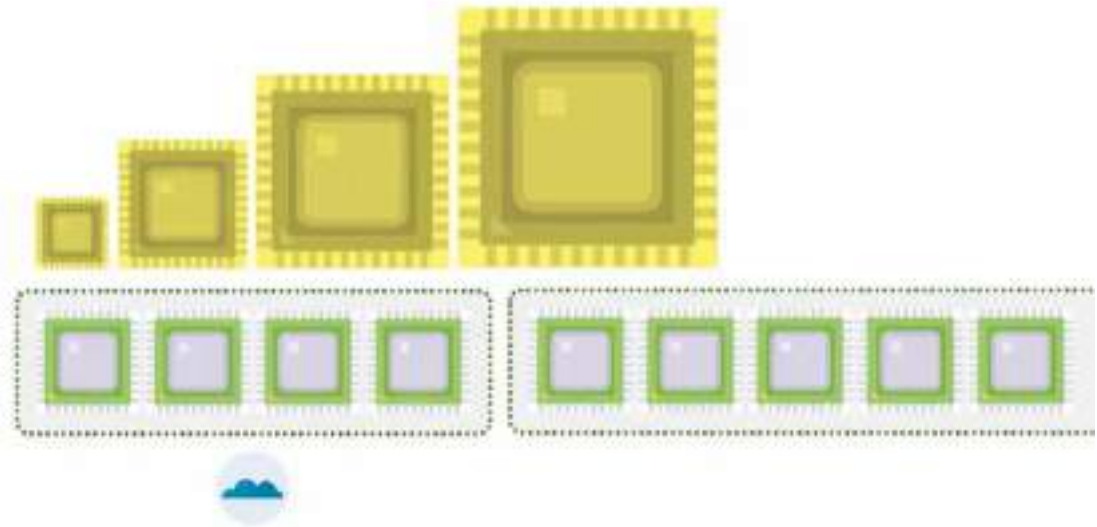
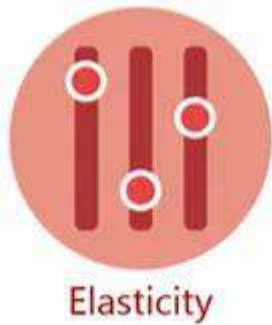
Cloud Service Models

Key characteristics of cloud computing



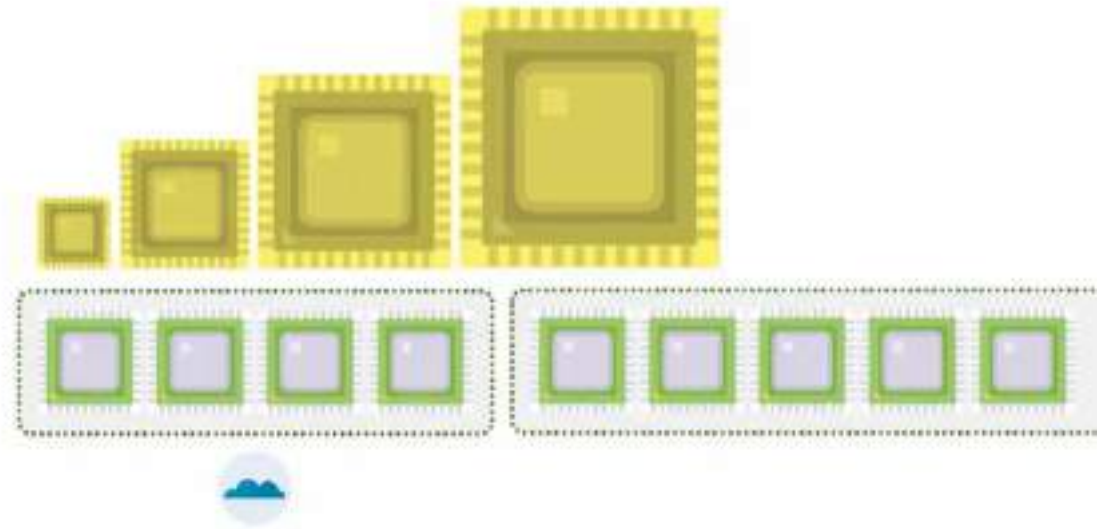
Cloud Service Models

Key characteristics of cloud computing



Cloud Service Models

Key characteristics of cloud computing



scale resources up or down based on demand

Cloud Service Models

Key characteristics of cloud computing



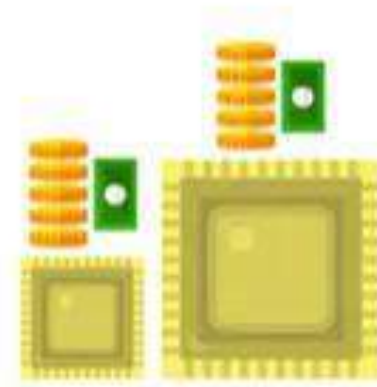
Pay per Use

Cloud Service Models

Key characteristics of cloud computing



Pay per Use

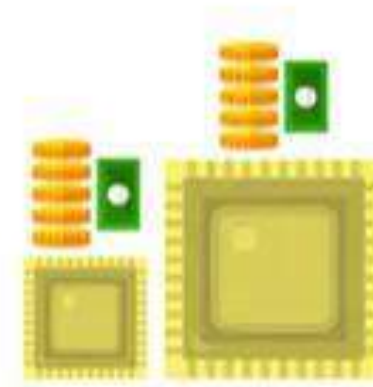


Cloud Service Models

Key characteristics of cloud computing



Pay per Use



Only paying for the resources you use and the time you use them, avoiding upfront costs.

Cloud Service Models

Key characteristics of cloud computing



Automation



Cloud Service Models

Key characteristics of cloud computing



Automation



Pay per Use

Cloud Service Models

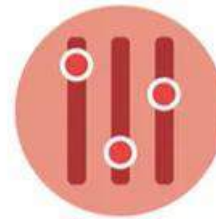
Key characteristics of cloud computing



Automation



Pay per Use



Elasticity

Cloud Service Models

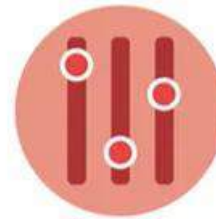
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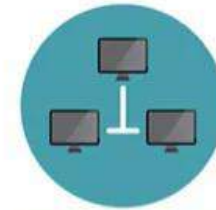
Automation



Pay per Use



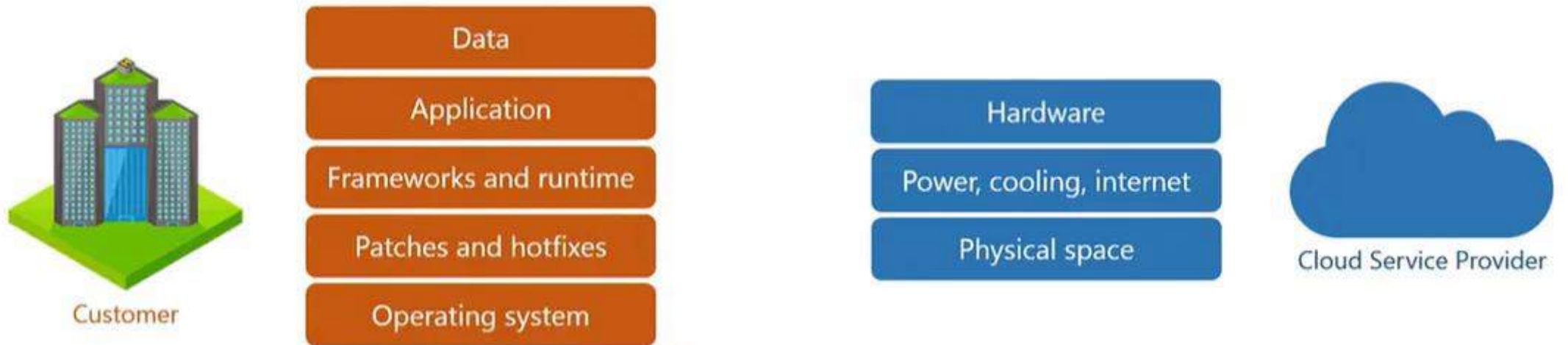
Elasticity



Resource Pooling

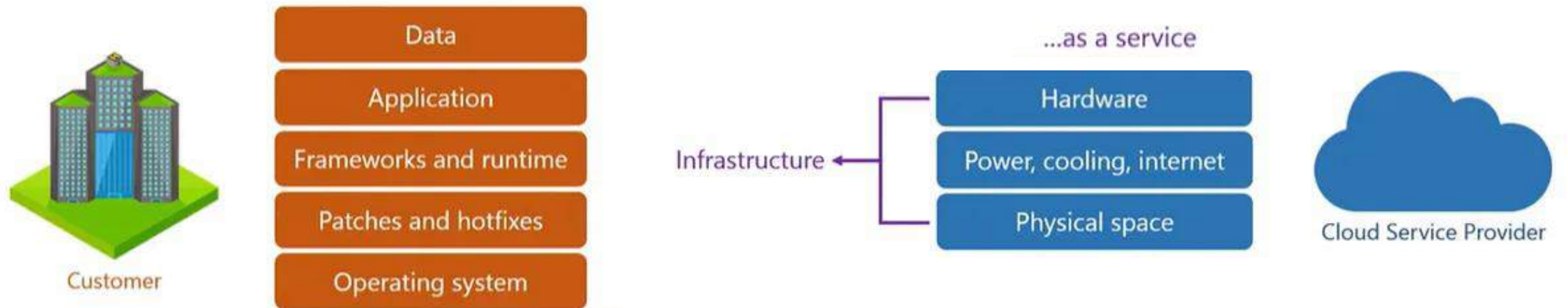
Cloud Service Models

Understand infrastructure as a service (IaaS)



Cloud Service Models

Understand infrastructure as a service (IaaS)



Cloud Service Models

Understand platform as a service (SaaS)



Data

Application

Frameworks and runtime

Patches and hotfixes

Operating system

Hardware

Power, cooling, internet

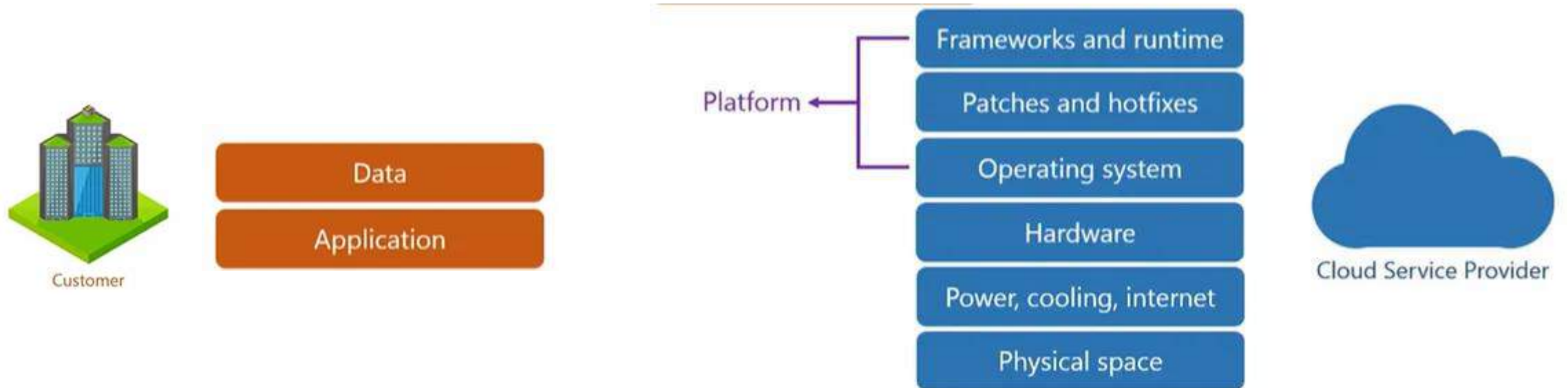
Physical space



Cloud Service Provider

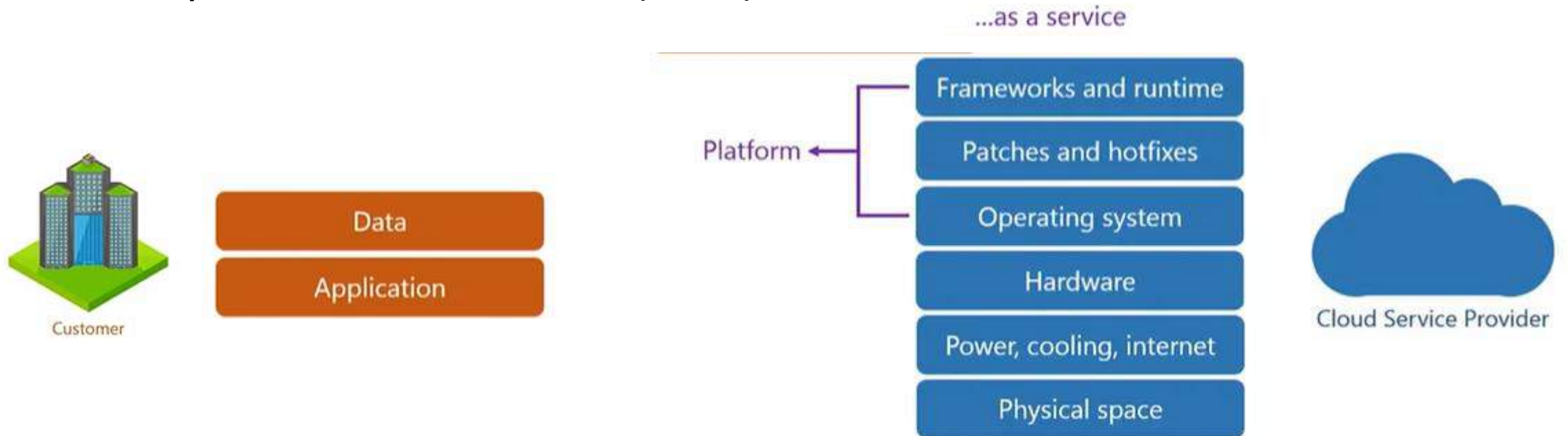
Cloud Service Models

Understand platform as a service (PaaS)



Cloud Service Models

Understand platform as a service (PaaS)

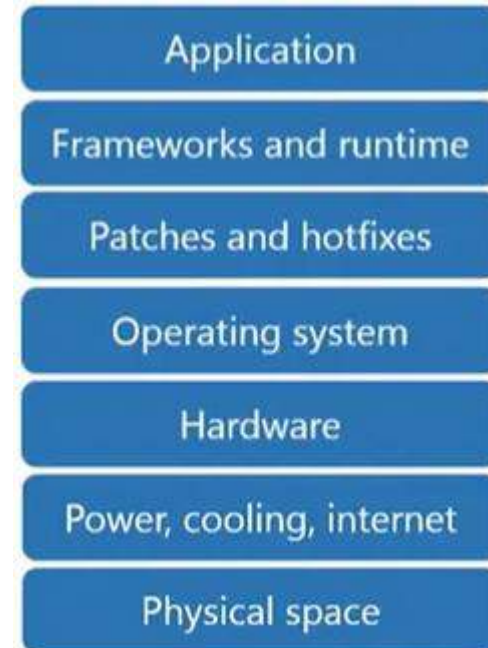


Cloud Service Models

Understand software as a service (SaaS)

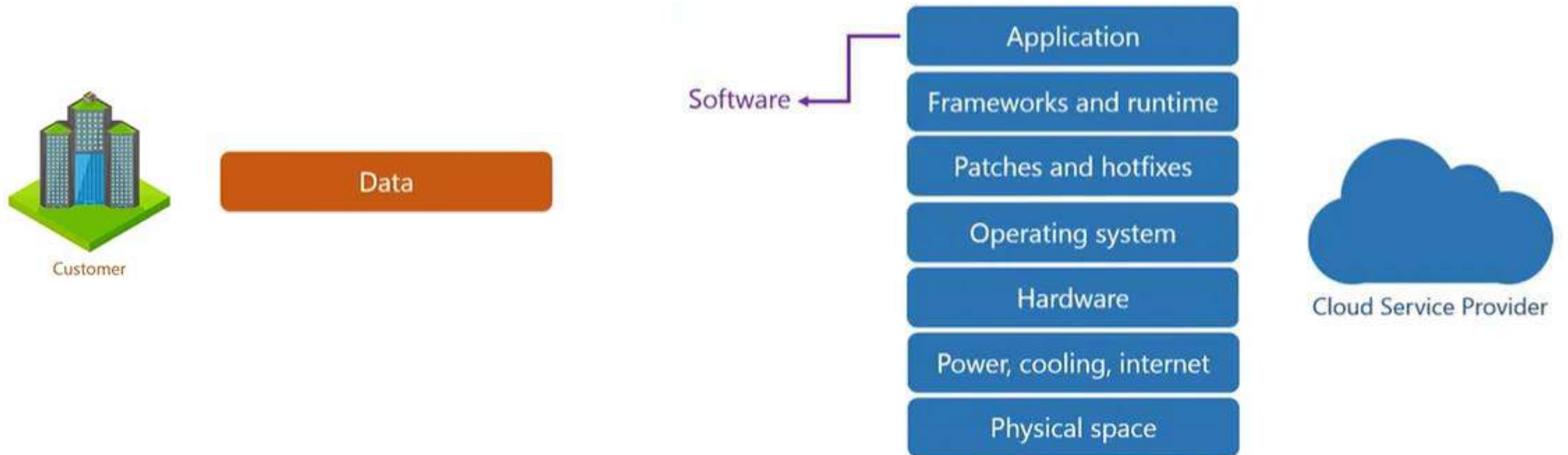


Data



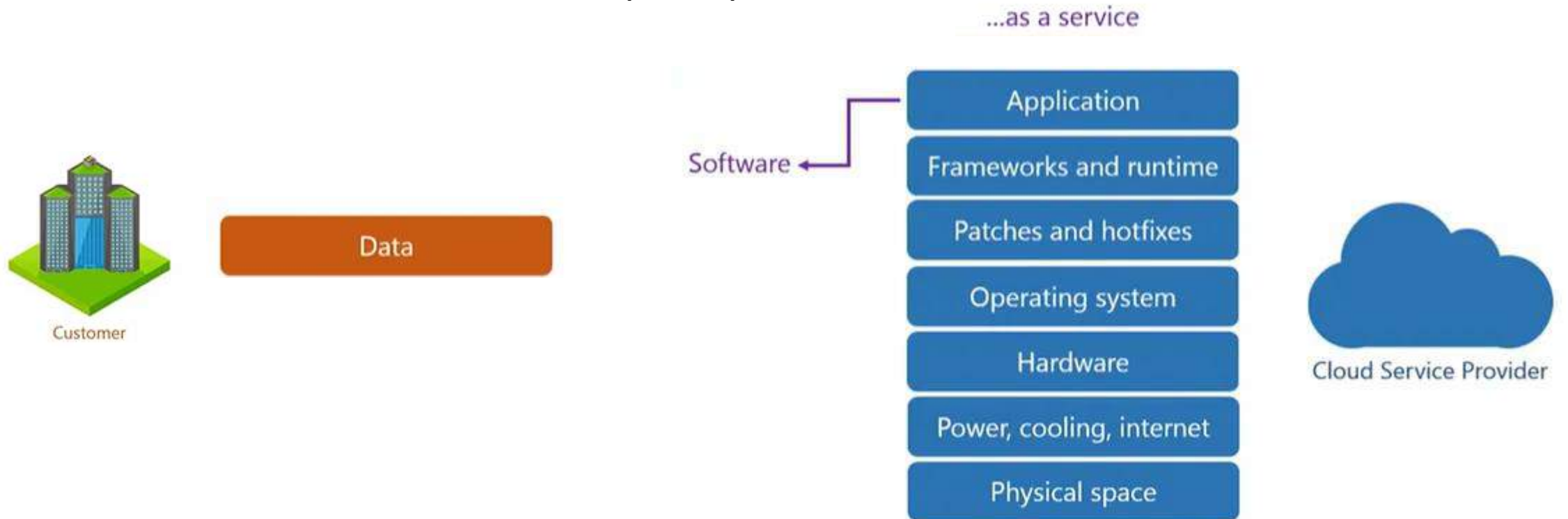
Cloud Service Models

Understand software as a service (SaaS)



Cloud Service Models

Understand software as a service (SaaS)



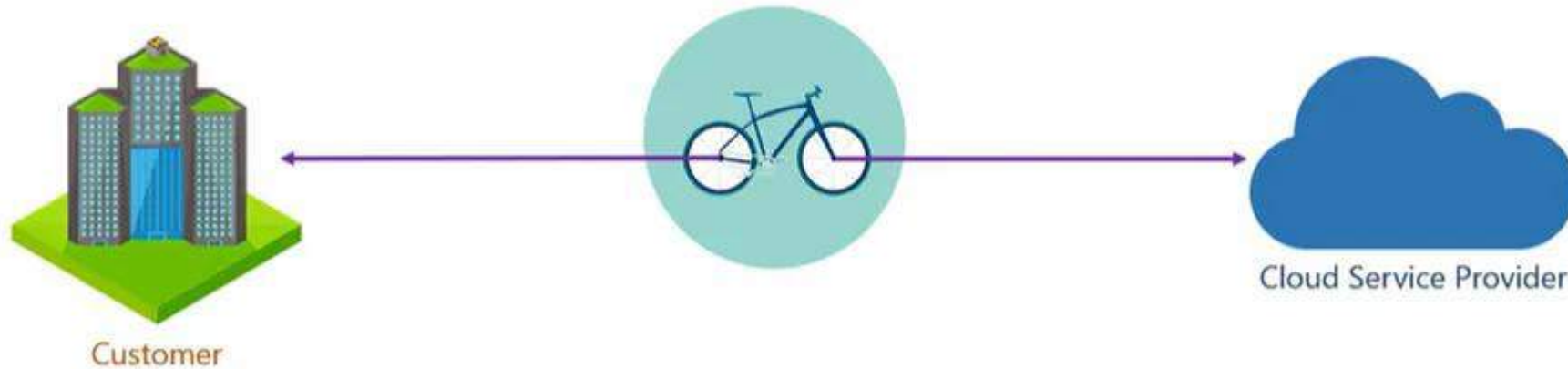
Cloud Service Models

Understand the shared responsibility model



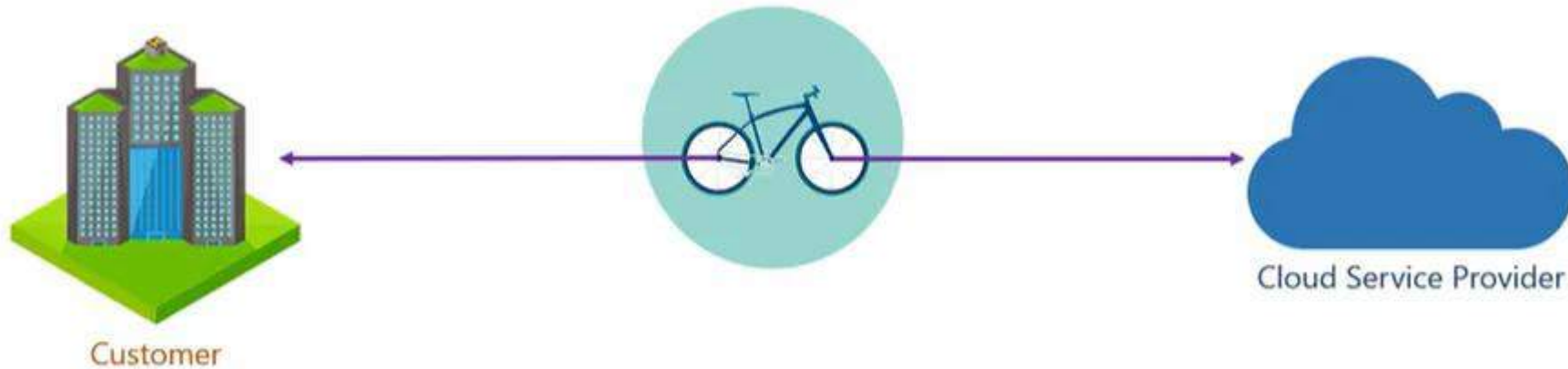
Cloud Service Models

Understand the shared responsibility model



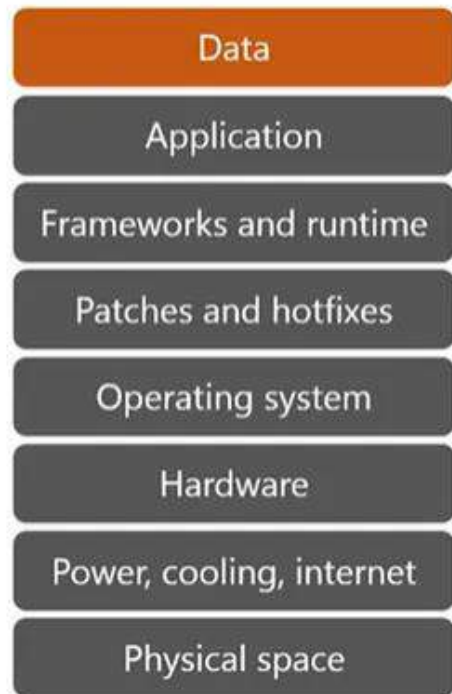
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Understand the shared responsibility model



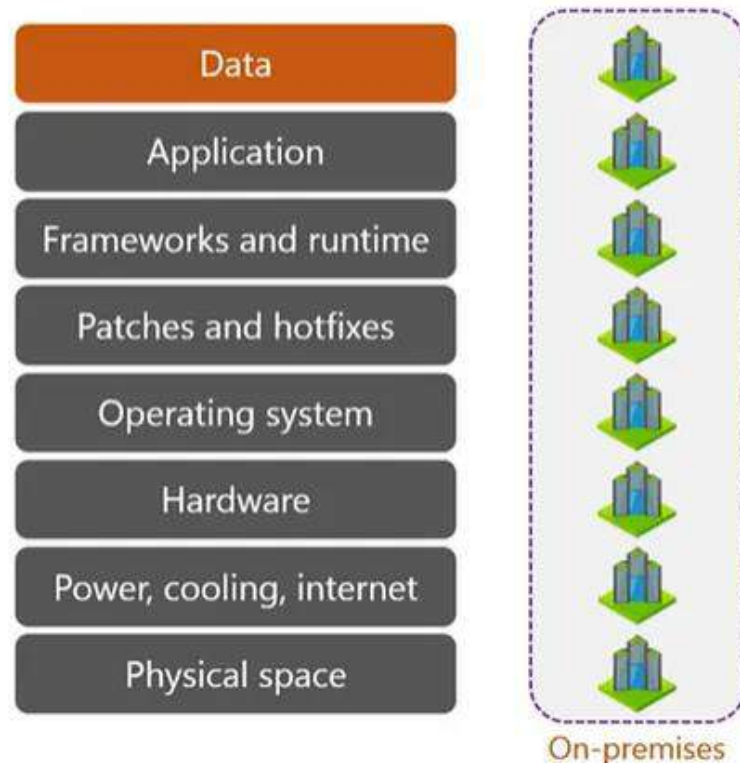
Cloud Service Models

Understand the shared responsibility model



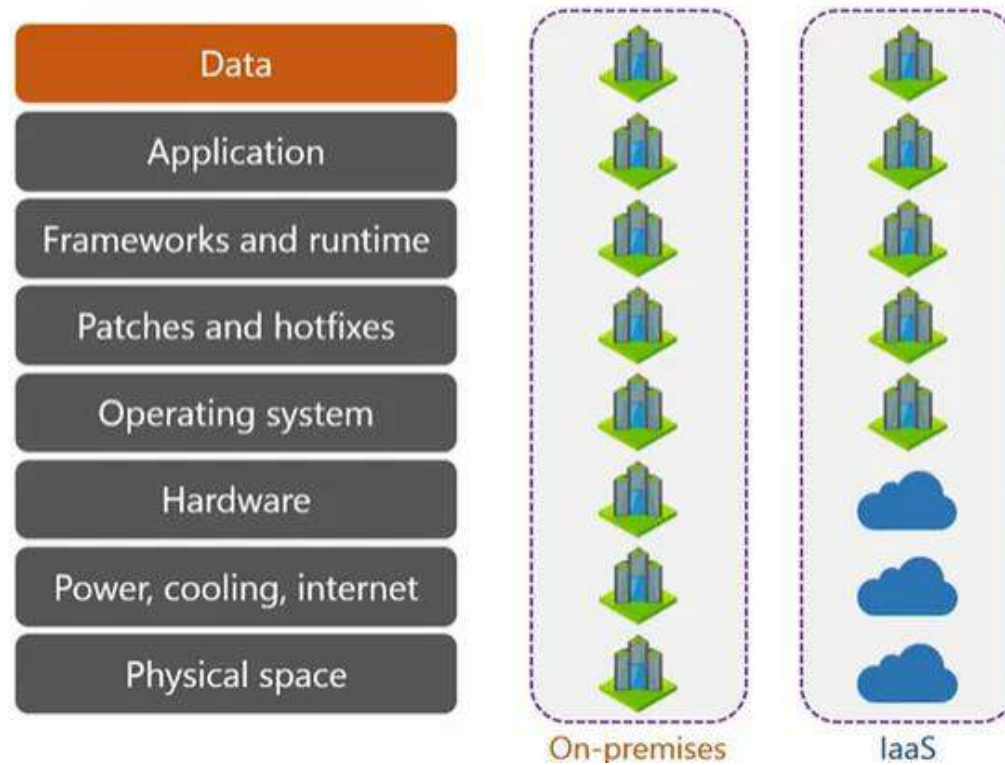
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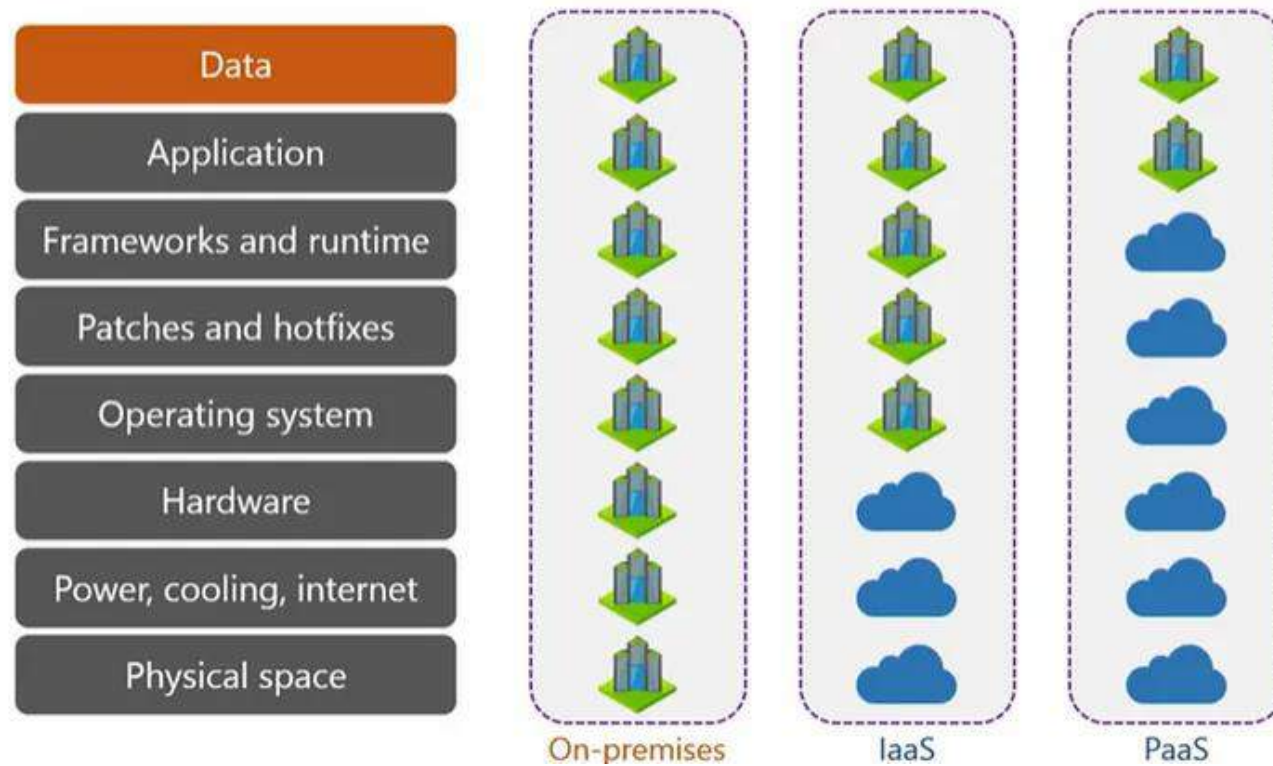
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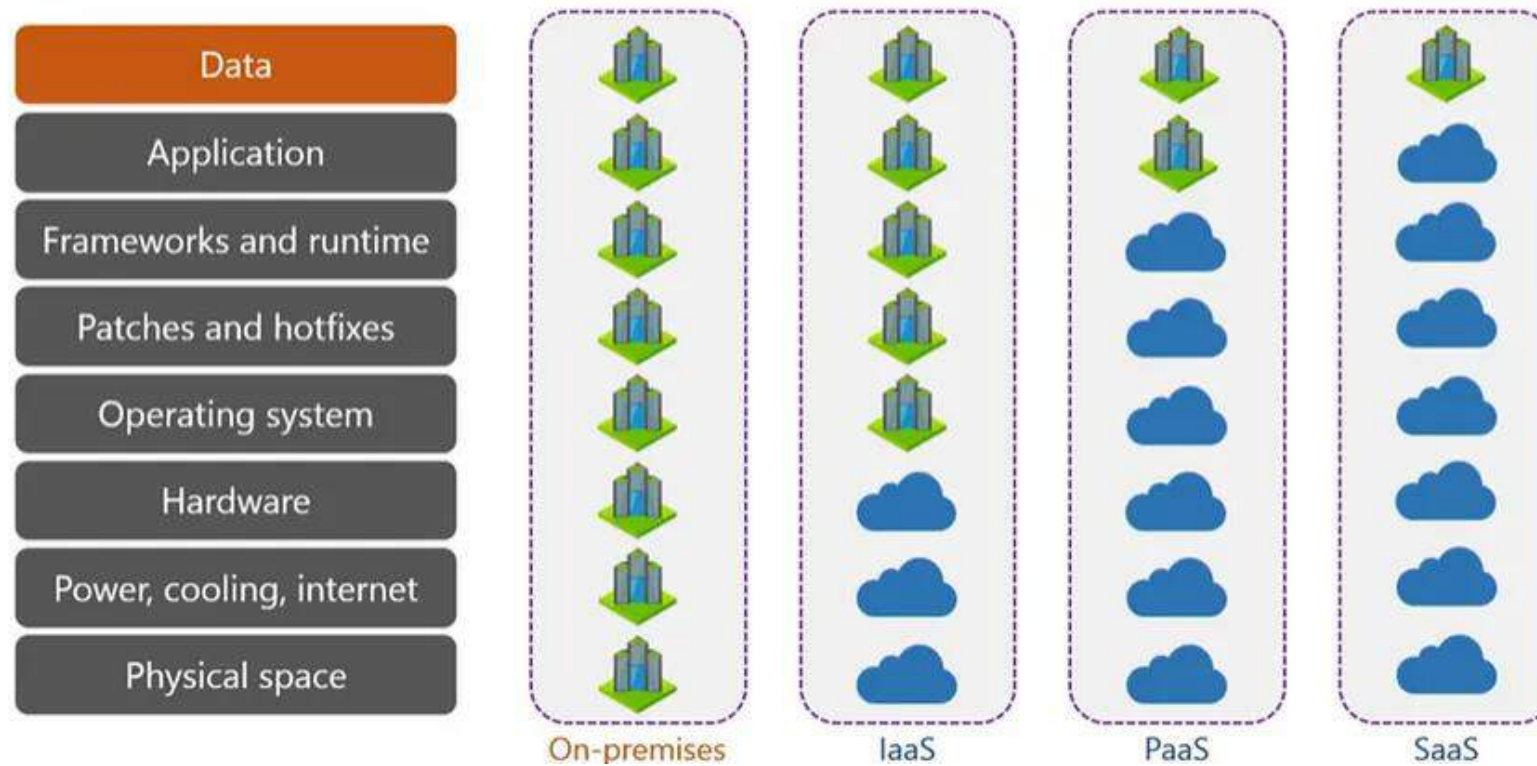
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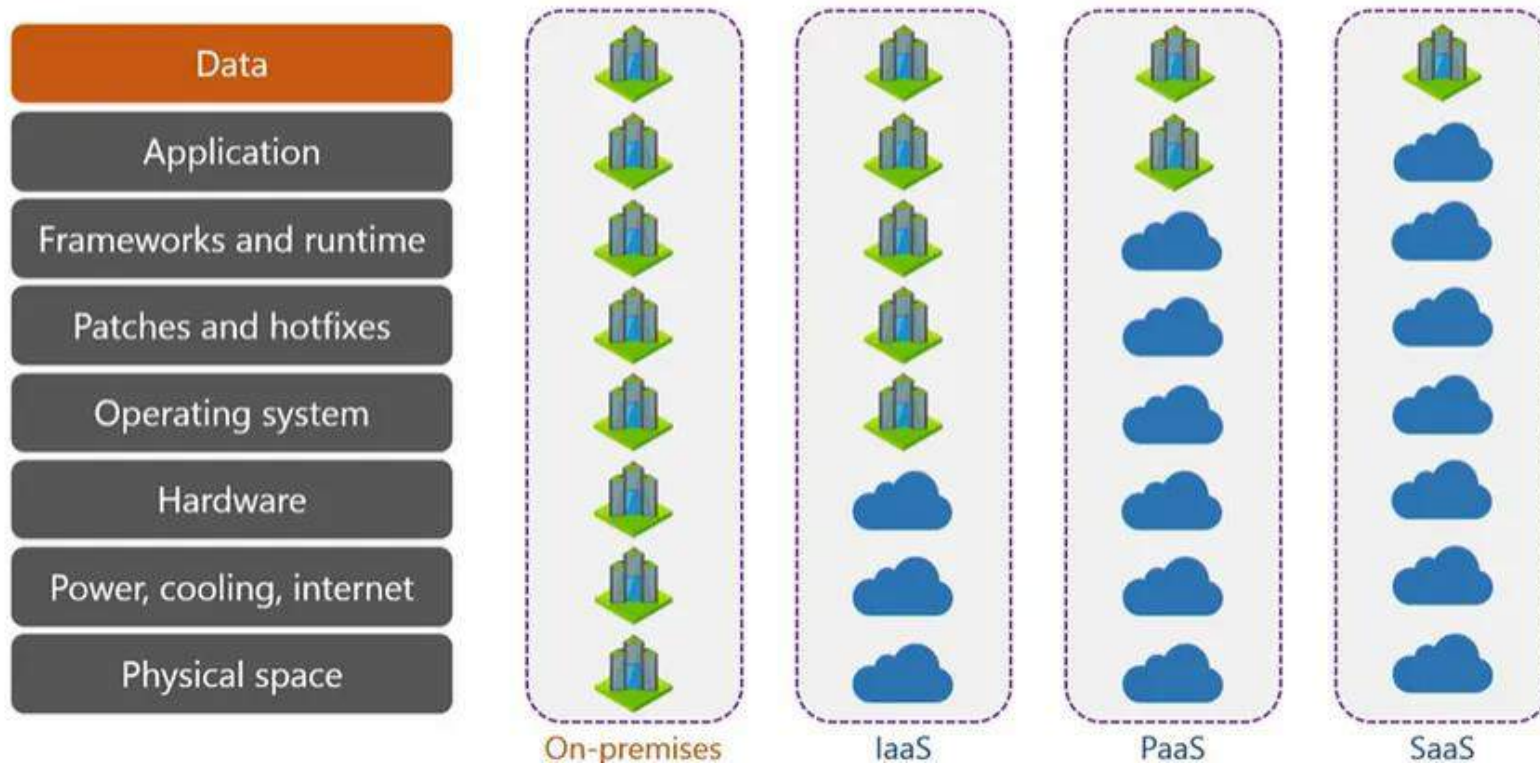
Cloud Service Models

Understand the shared responsibility model



Cloud Service Models

Understand the shared responsibility model



Regardless of the service model, the customer is always responsible for managing and securing their data.

Cloud Service Models

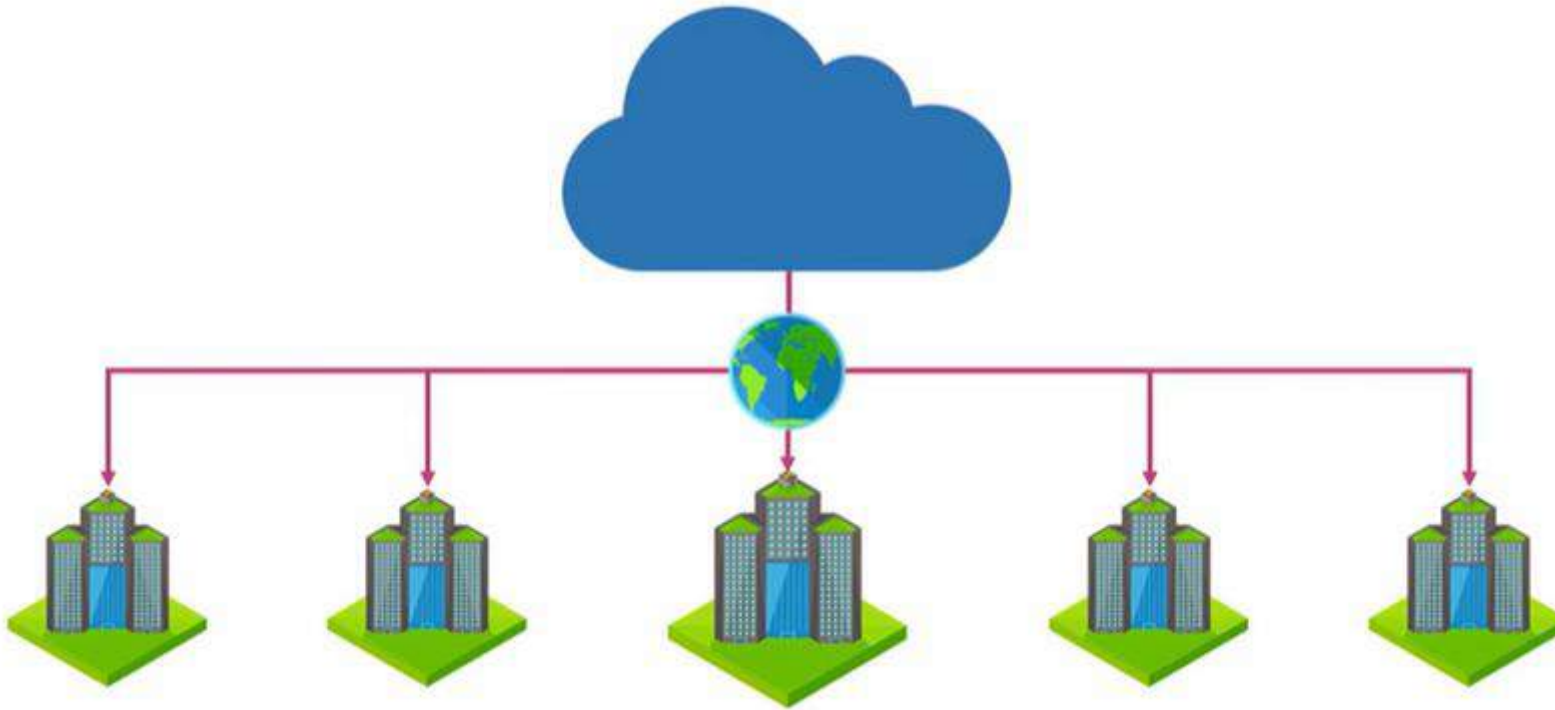
How to choose between IaaS PaaS SaaS

1. How much control you need on the environment
2. How much time you have to work on it
3. Your needs and financial resources



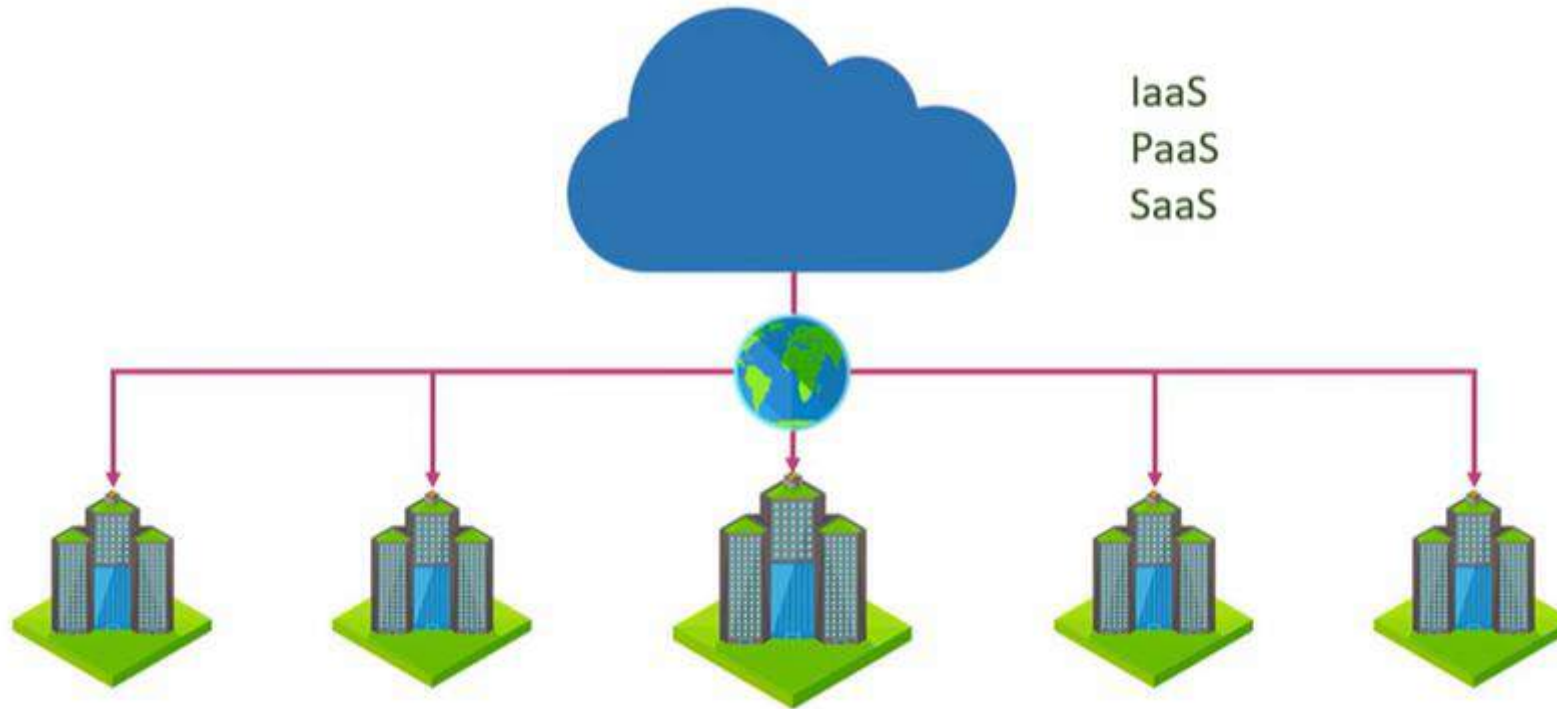
Types of cloud

Public Cloud



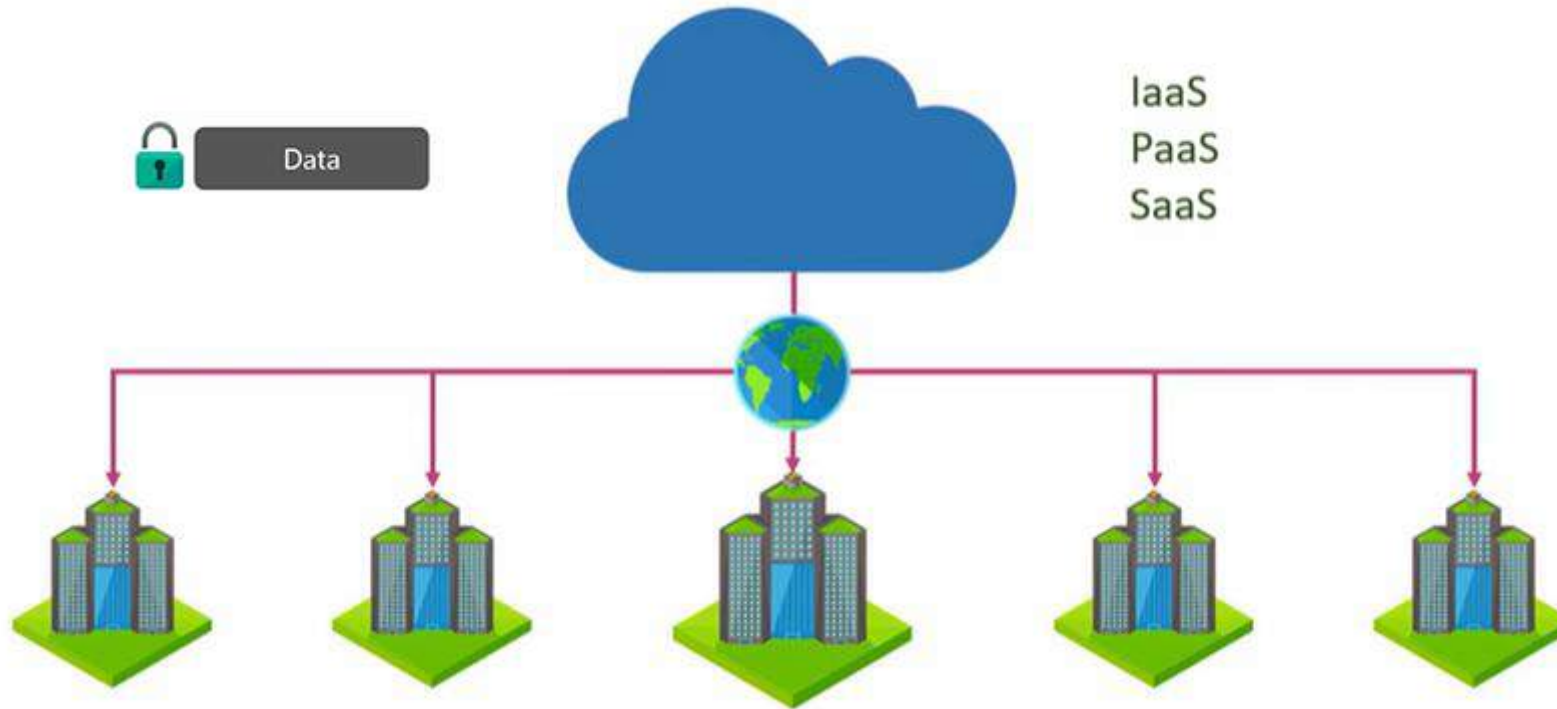
Types of cloud

Public Cloud



Types of cloud

Public Cloud



Types of cloud

Public Cloud



Resource Pooling



Elasticity



Pay per Use

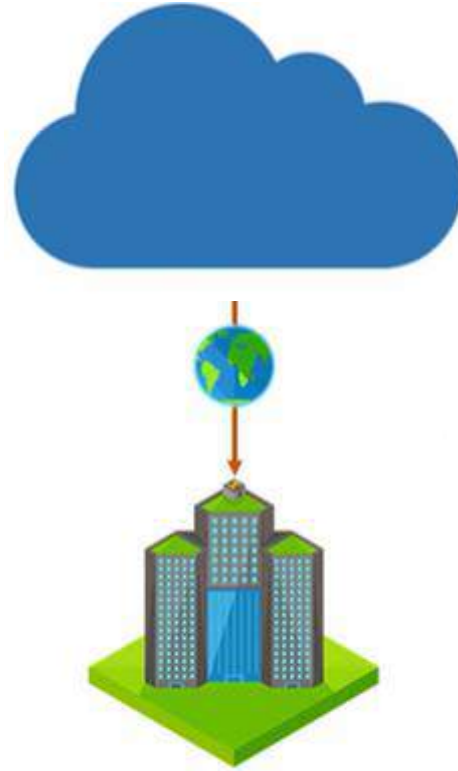


Automation



Types of cloud

Private Cloud



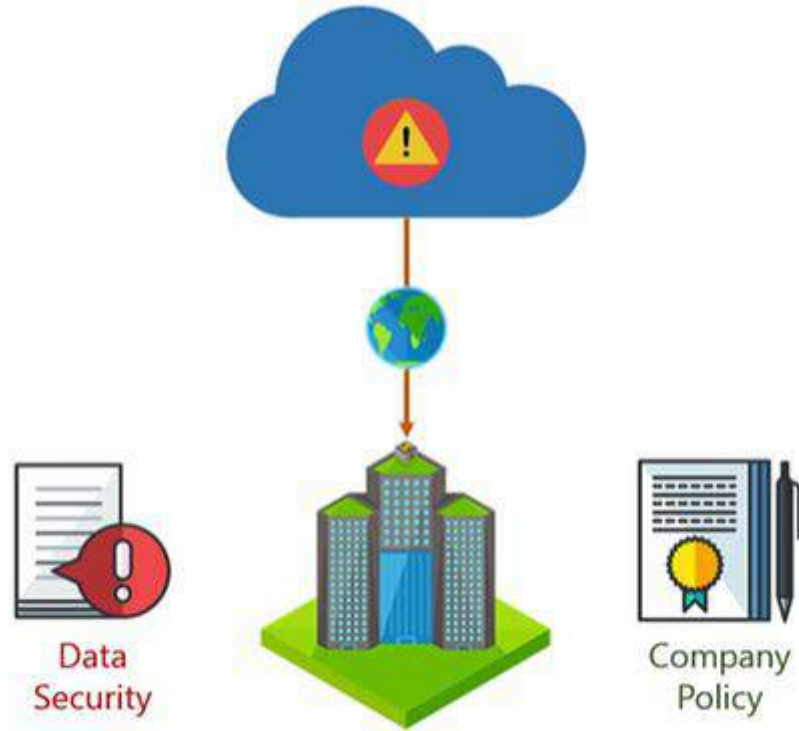
Types of cloud

Private Cloud



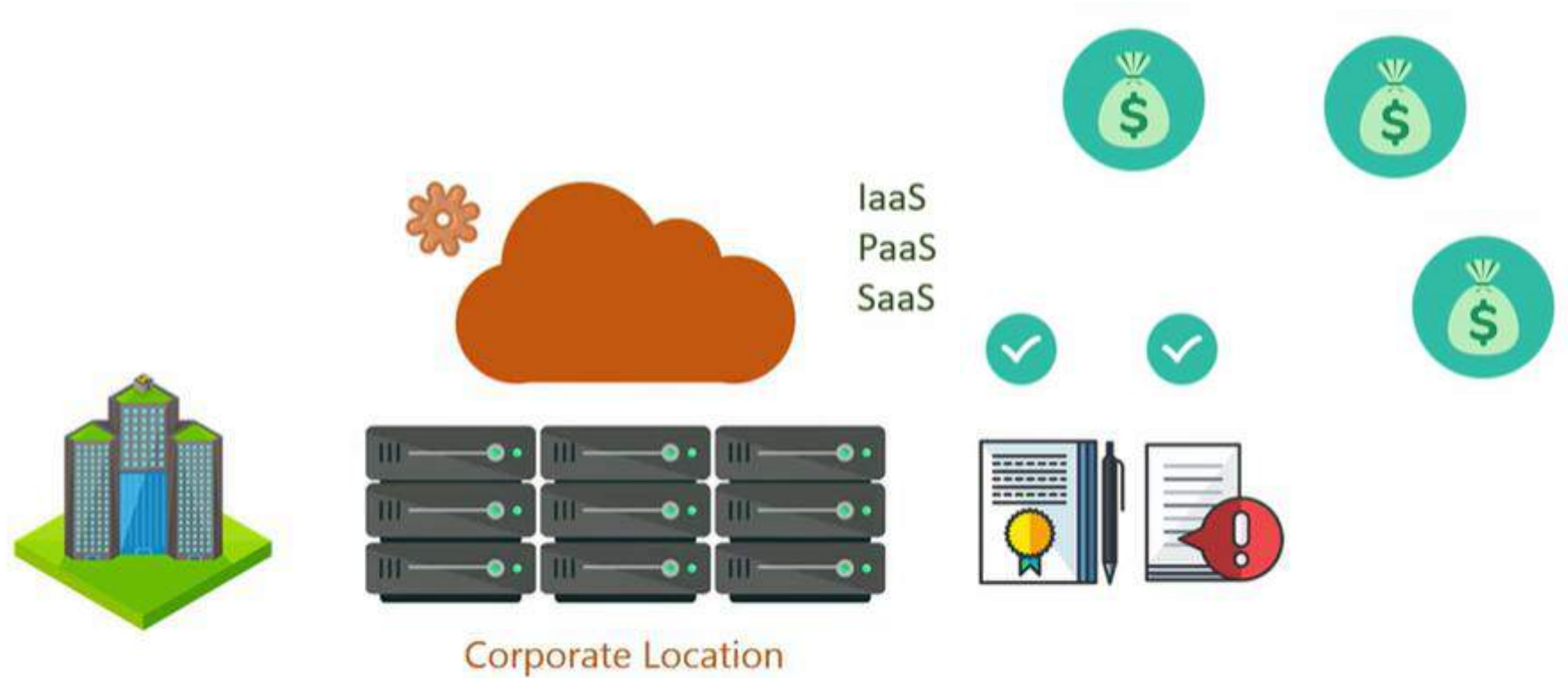
Types of cloud

Private Cloud



Types of cloud

Private Cloud



Types of cloud

Private Cloud



Resource Pooling



Automation



Company
Policy



Data
Security

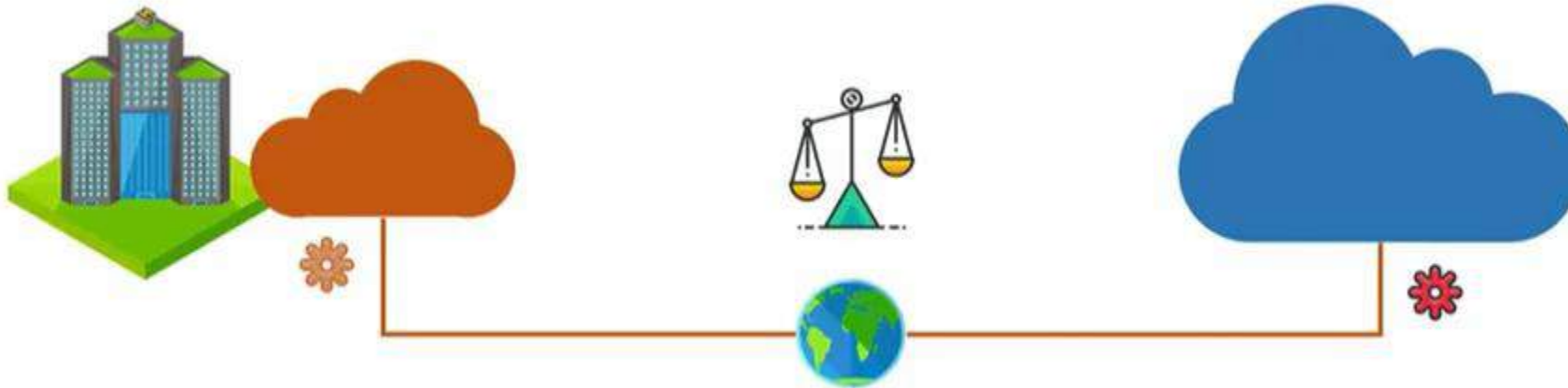
Types of cloud

Hybrid Cloud



Types of cloud

Hybrid Cloud



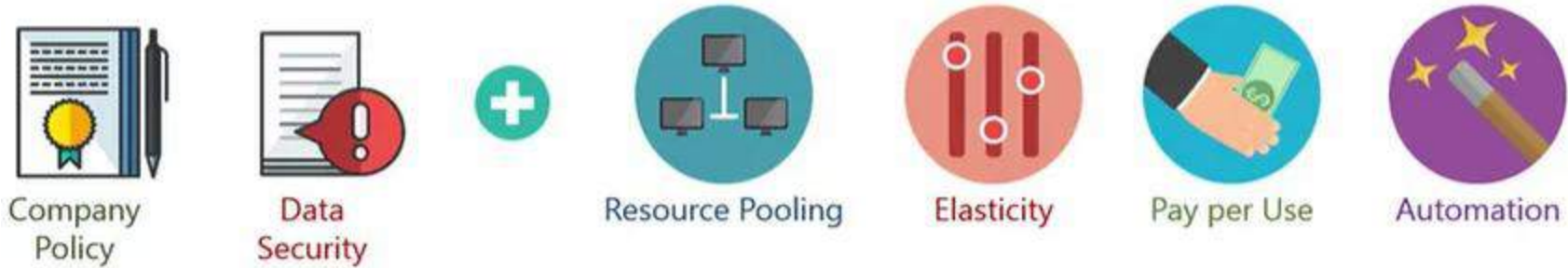
Types of cloud

Hybrid Cloud



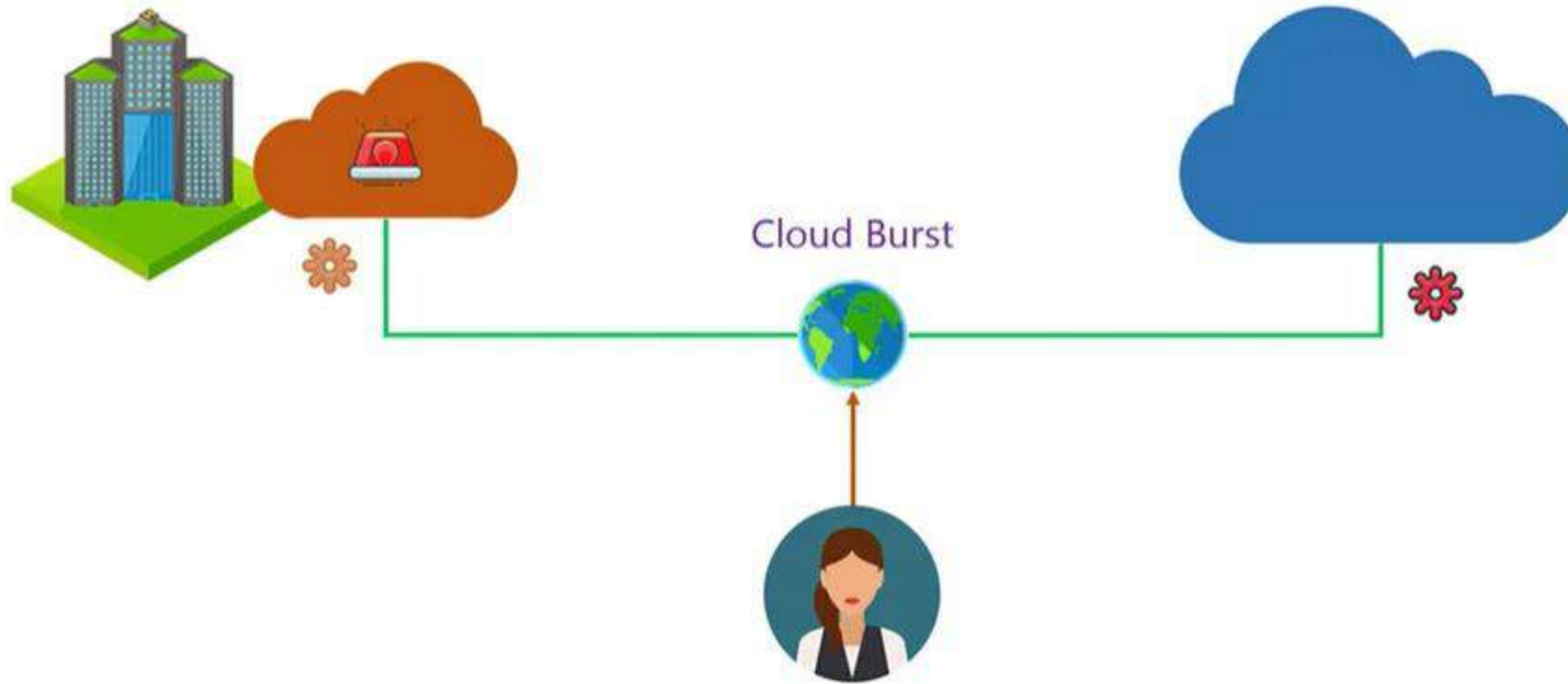
Types of cloud

Hybrid Cloud



Types of cloud

Hybrid Cloud



Types of cloud

sovereign clouds



Types of cloud

sovereign clouds



Types of cloud

sovereign clouds



Types of cloud

sovereign clouds



Azure US Government



National Governments



Azure China

Types of cloud

sovereign clouds



These clouds operate like isolated private clouds but have the scale and capacity of public clouds.

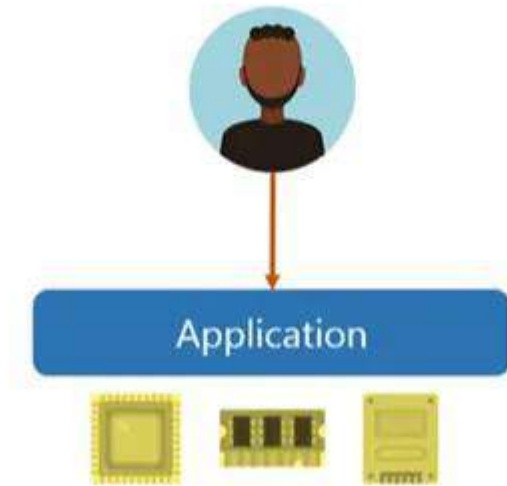
Types of cloud

sovereign clouds

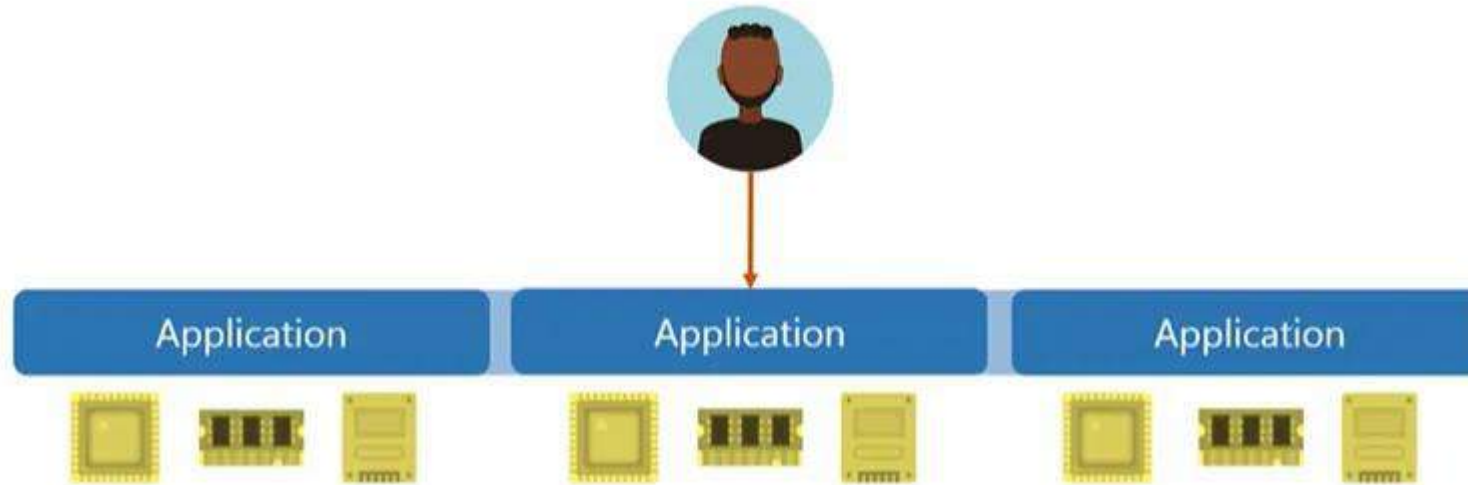


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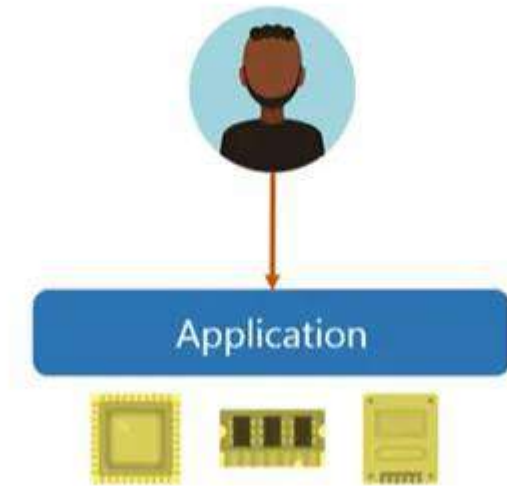
Benefits of cloud



Benefits of cloud

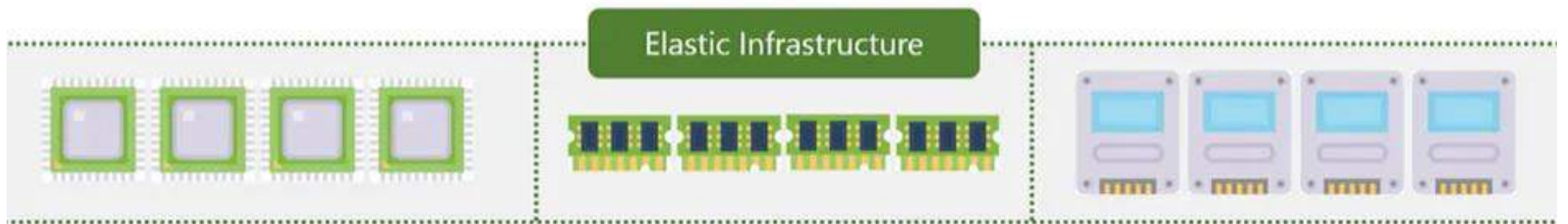


Benefits of cloud

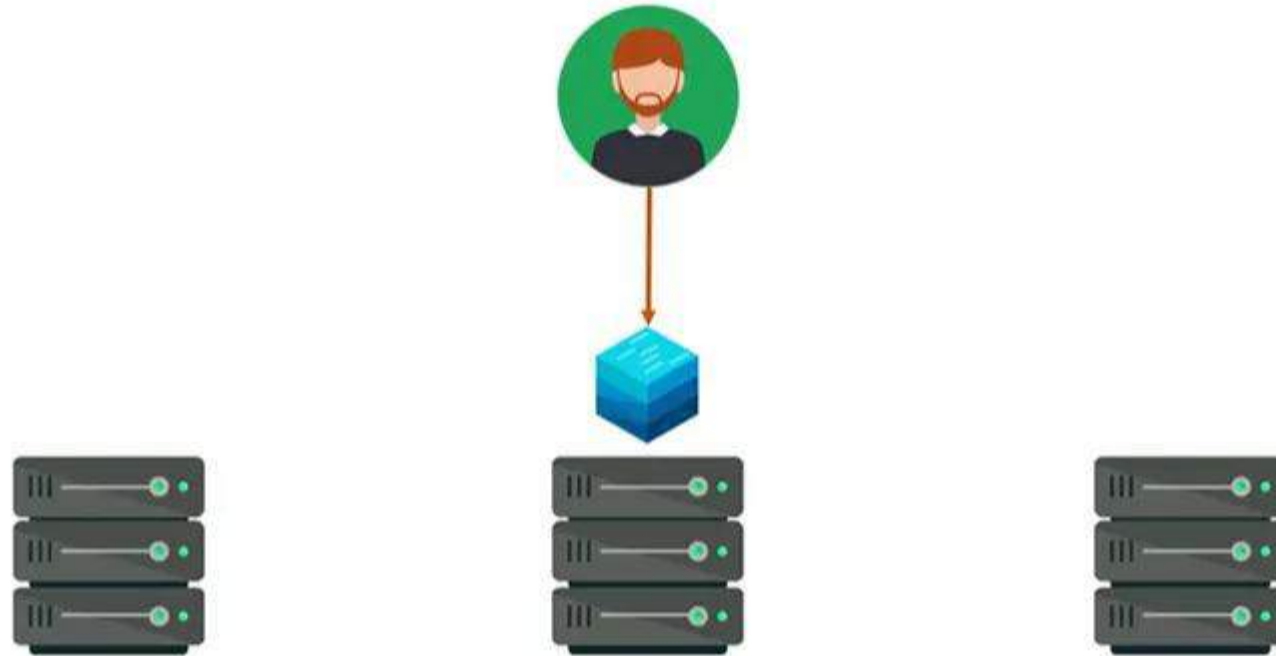


benefits of cloud

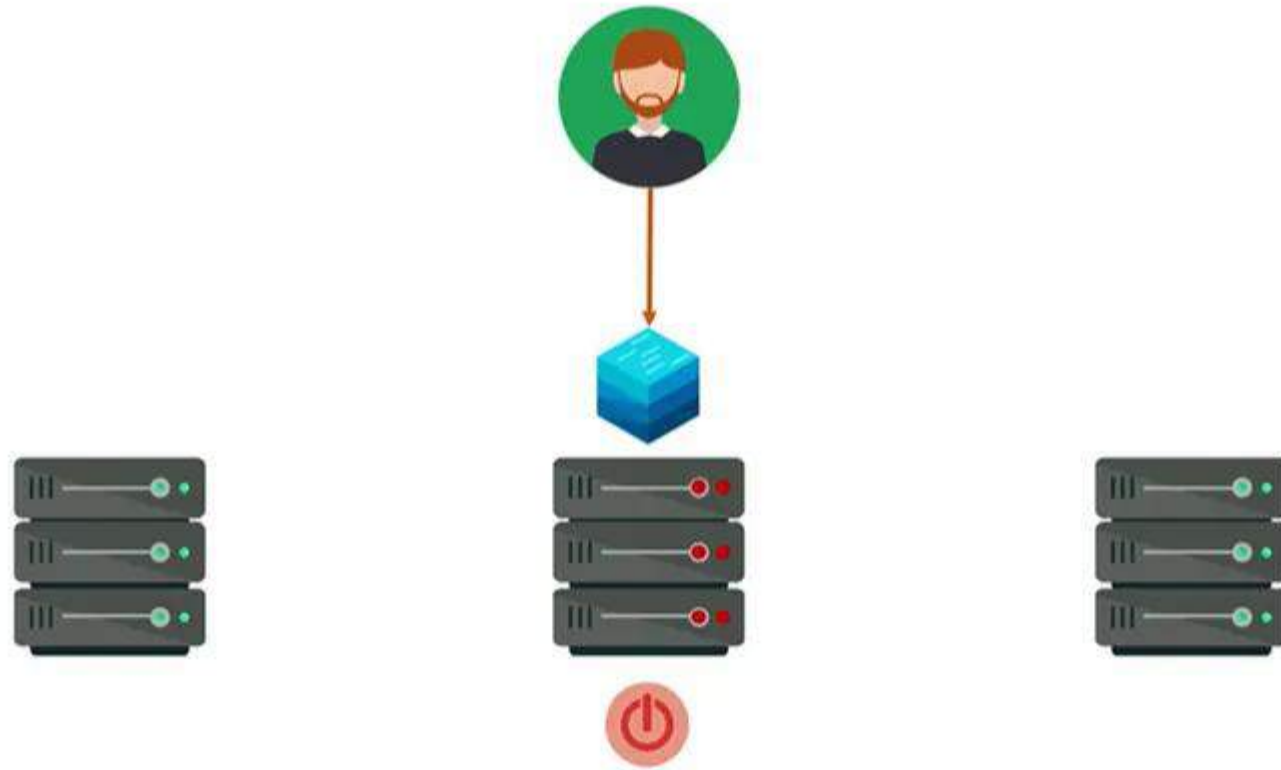
elasticity



benefits of cloud



benefits of cloud

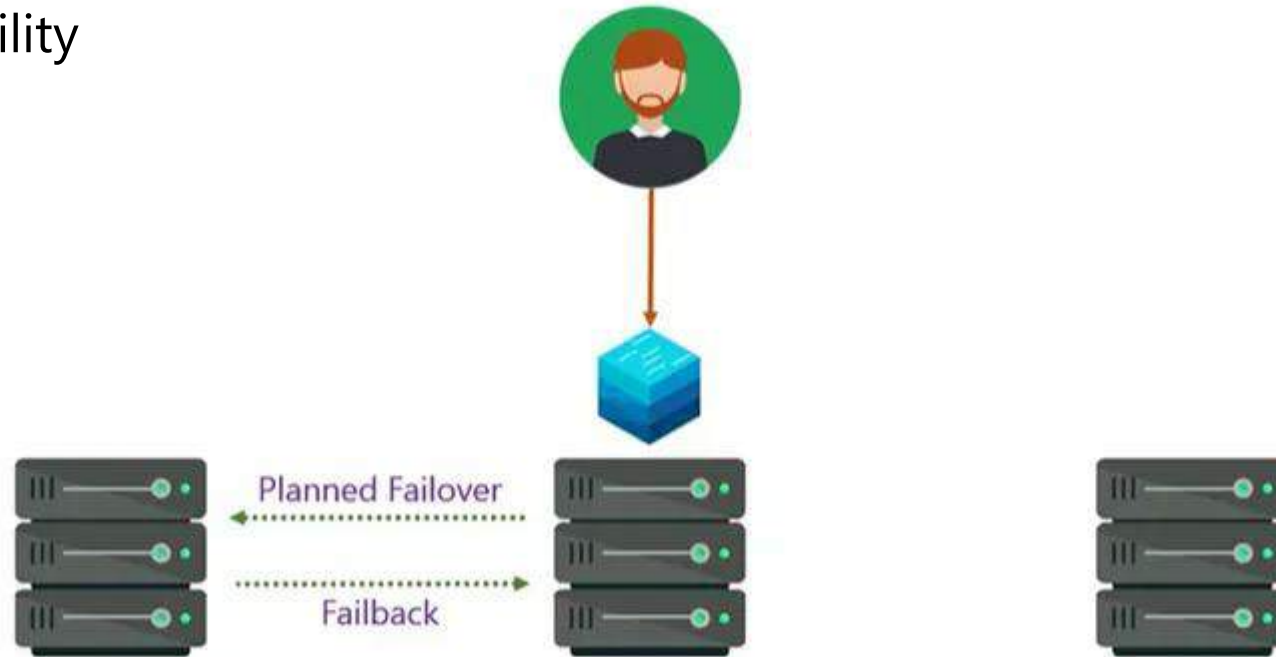


benefits of cloud



benefits of cloud

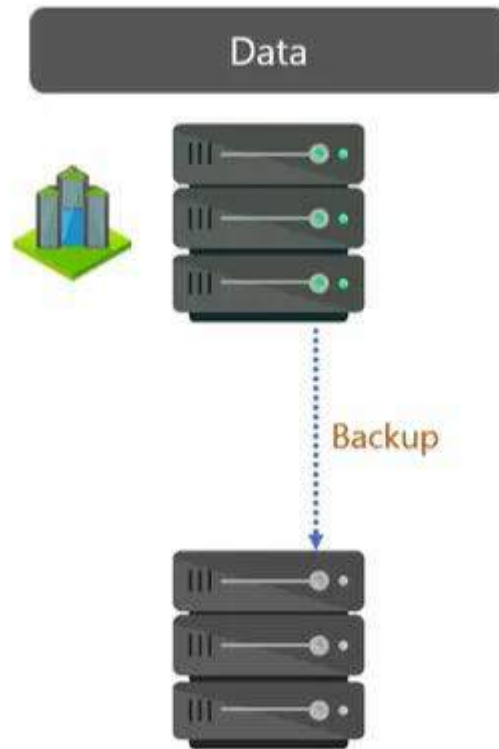
High availability



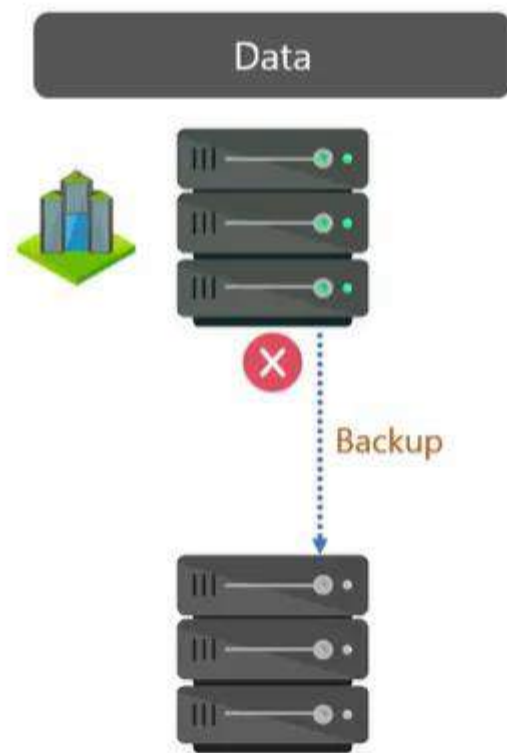
benefits of cloud



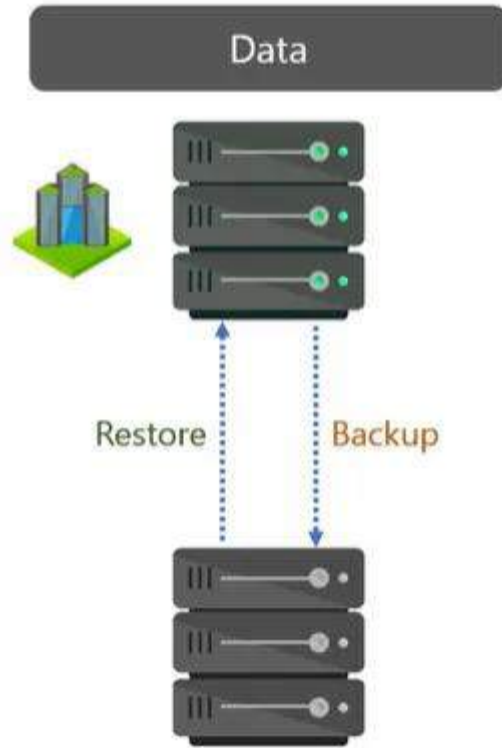
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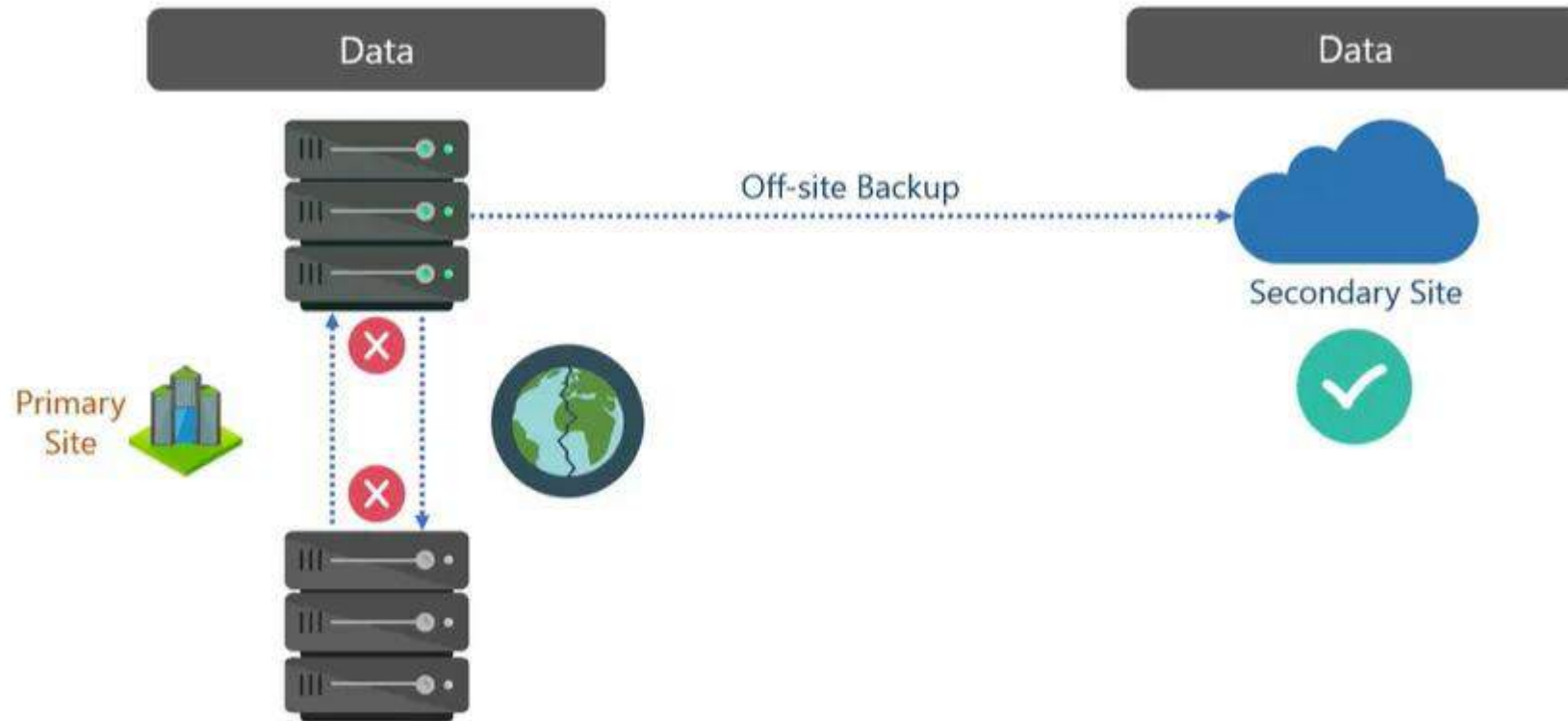
benefits of cloud



benefits of cloud



benefits of cloud



benefits of cloud



benfits of cloud

Security in the cloud

1.Encryption:

2.Identity and Access Management (IAM):



benfits of cloud

Security in the cloud

1.Encryption:

2.Identity and Access Management (IAM):



Conclusion

Thank You

Any questions?

