



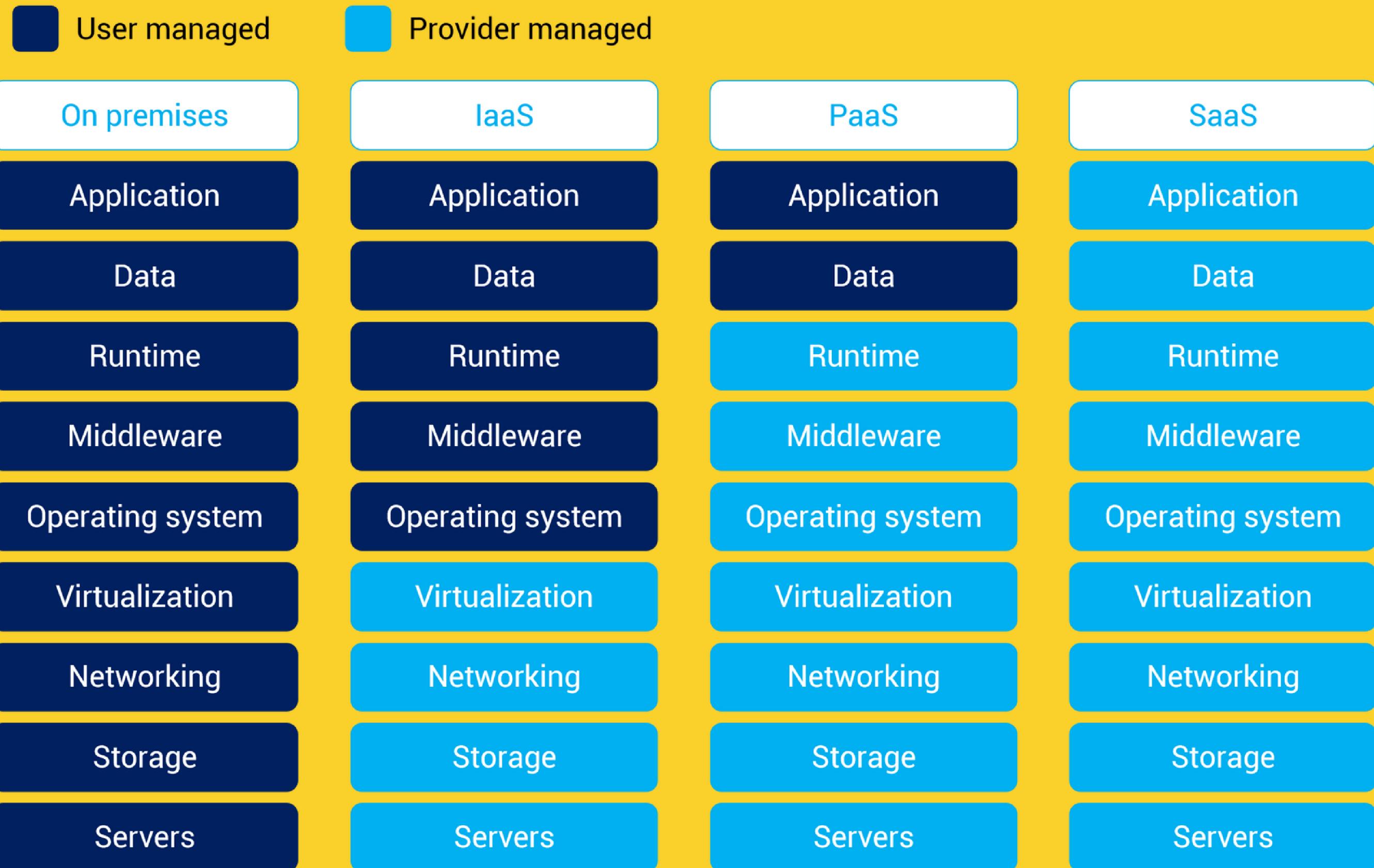
Cloud Service Models

**Models Supporting Virtualization:
IaaS, PaaS, and SaaS
Exploring our options.**

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Overview of IaaS, PaaS and SaaS



(Difference between IaaS, PaaS and SaaS, 2024)



Cloud Service Models

As we move towards virtualization, it is crucial to explore cloud-based architectures and the advantages they offer. We will delve into each type, emphasizing how they support virtualization, as well as their advantages and disadvantages for organizations.

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- 1. IaaS**
Infrastructure as a Service
- 2. PaaS**
Platform as a Service
- 3. SaaS**
Software as a Service





IaaS

Infrastructure as a Service

How Would IaaS Support Us?

IaaS equips users with the capacity to access virtualized resources, including servers, storage, and networking, on demand. By leasing these resources, you can execute virtual machines and software directly on the cloud infrastructure without the commitment of owning physical hardware. This streamlines deployment and offers dynamic scaling options, which can be extremely practical.

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IaaS

Infrastructure as a Service

Advantages



Cost-efficiency:
Pay simply for what our company uses, lowering upfront hardware costs and maintenance expenses.



Scalability:
Smoothly scale resources up or down in response to demand, assuring agility and responsiveness.



Disaster Recovery:
Redundant infrastructure fosters seamless data recovery in case of outages or natural disasters.



Flexibility: Choose various operating systems, software, and tools to build solutions that fit the company.





IaaS

Infrastructure as a Service

Disadvantages



Security: Providers secure the infrastructure. However, we would be responsible for securing the deployments and services.



Vendor Lock-In: Switching providers could be difficult. You may be using proprietary configurations, and they could not transfer.



Limited Control: No control over infrastructure like when owning our own hardware.



Broadband Connectivity: Our service quality is only as good as our internet connection to the service provider.





PaaS

Platform as a Service

How Would PaaS Support Us?

PaaS provides a comprehensive development and deployment platform in the cloud. It includes virtualized servers, operating systems, middleware, databases, and development tools. You can build and deploy applications without governing the underlying infrastructure.

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PaaS

Platform as a Service

Advantages



Faster Development: Pre-configured software and tools allow for quick development and deployment.



Scalability: Quickly and efficiently scale resources for applications without concern for infrastructure.



Simplified Management: Platform vendors manage things such as networking, storage, servers, and operating systems.



Flexibility: Allows users to work from anywhere in the world with a network connection.





PaaS

Platform as a Service

Disadvantages



Security: Providers secure the infrastructure and platform. However, we would be responsible for securing the applications we use.



Vendor Lock-In: Switching providers could be difficult. You may be using platform-specific features that may not transfer.



Limited Customization: Platform Vendors may not be compatible with highly customized application needs.



Cost Control: The pay-as-you-go service model may become unpredictable for highly used applications.





SaaS

Software as a Service

How Would SaaS Support Us?

SaaS provides access to comprehensively managed, virtualized applications over the internet. You access components and functionalities through a web browser or API, eliminating the necessity for local installation or infrastructure management.

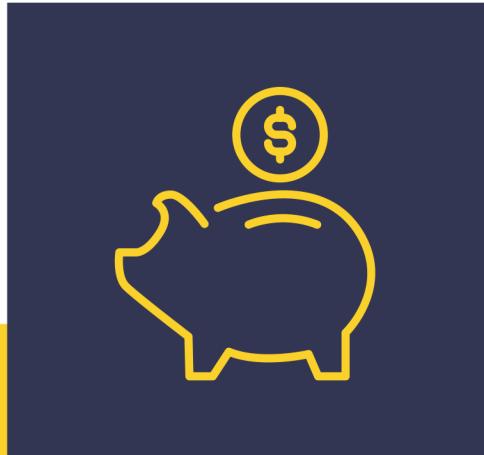
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SaaS

Software as a Service Advantages



Cost-efficiency:
Subscription-based service allows for predictable subscription fees that simplify budgeting.



Accessibility:
Access applications from any device with an internet connection.



Ease of Use:
No installation or maintenance is required on site. Offers immediate access and ease of use to employees.



Automatic Updates: Vendor handles updates and security patches. This ensures that applications stay current.



SaaS

Software as a Service

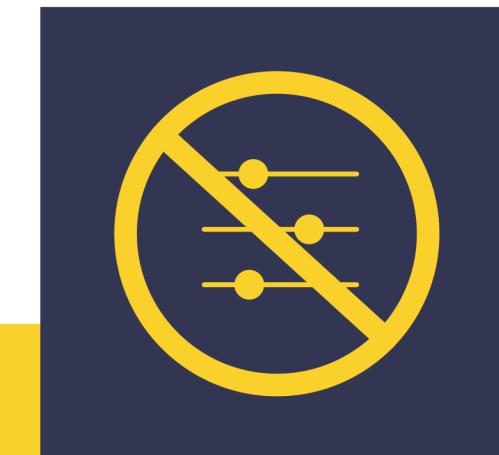
Disadvantages



Data Security:
Data resides in the vendor's infrastructure. This is a security concern for inter-organizational vendor data breaches.



Vendor Lock-In:
Switching providers could be difficult.
You are using proprietary configurations and software.



Limited Customization:
A vendor's proprietary software has limited customization options to meet the needs of an organization.



Integration:
Integrations with other systems and applications are complex and limited.



SaaS: Cloud Deployment Models

Public Cloud

A multi-tenanted environment operated by a vendor for which the company pays for provisioned services.

Advantages

- Cost Efficient
- Software Updates
- Accessibility
- Interoperability

Disadvantages

- Security/Privacy
- Limited Control
- Service Downtime

Private Cloud

A single-tenanted environment where a company has complete control regarding architecture and configuration.

Advantages

- Security
- Customization
- Privacy

Disadvantages

- Cost
- Scalability
- Maintenance
- Upgrades

Hybrid Cloud

A hybrid of public and private environments, delivering the advantages of both with fewer disadvantages.

Advantages

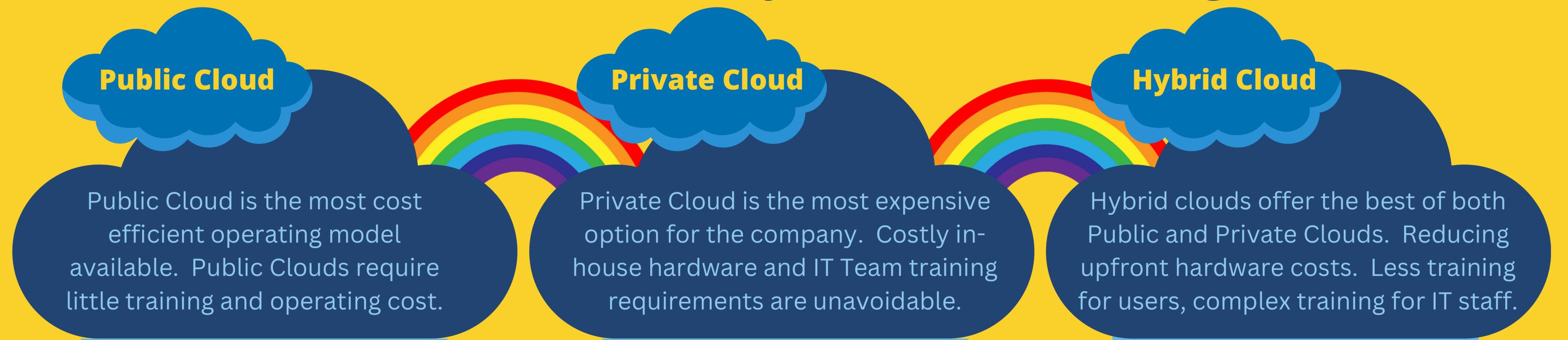
- Flexibility
- Scalability
- Security
- Capacity

Disadvantages

- Complexity
- Vendor Lock-in
- Integration



Buisness Scalability - Cost and Training





References

Difference between IaaS, PaaS, and SaaS. (2024). Retrieved from alibabacloud.com:
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Thank You For Your Consideration

Our Virtualization Transition Committee is here to help make the right choice for Packages Plus Delivery. Don't hesitate to get in touch with any of us, including myself, if you have any questions. We hope these comparisons and facts will make your decision easy.

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