

Cloud vs On-Premises Hosting

Cloud Hosting Overview: Characteristics and Benefits

Cloud hosting relies on remote servers accessible via the internet, managed by third-party providers. Key benefits include:

- Scalability: Easily adjust resources based on demand.
- Cost-Effective: Pay-as-you-go pricing reduces upfront investments.
- Automatic Updates: Providers ensure regular updates and maintenance.
- Accessibility: Access from anywhere with an internet connection.
- Overall, cloud hosting is ideal for businesses that require flexibility and quick deployment.



On-Premises Hosting Overview: Characteristics and Benefits

On-premises hosting involves local servers maintained within an organization's facilities. Key benefits include:

- Control: Organizations have complete control over their data and infrastructure.
- Security: Sensitive data can be kept within the organization's premises.
- Customization: Tailor hardware and software to specific business needs.
- While on-premises hosting offers robust security, it may require significant upfront costs and ongoing maintenance.



Cloud vs On-Premises Hosting

Feature	Cloud Hosting	On-Premises Hosting	
Definition	Hosting applications, data, and services on servers managed by a cloud provider over the internet.	Hosting applications, data, and services on servers physically located within an organization's premises.	
Infrastructure Ownership	Owned and managed by cloud provider (AWS, Azure, GCP, etc.).	Owned and managed by the organization itself.	
Cost	Pay-as-you-go; less upfront cost.	High upfront cost for hardware, software, and maintenance.	
Scalability	Easily scalable; resources can be adjusted dynamically.	Limited scalability; adding resources requires physical hardware.	
Maintenance	Provider manages maintenance, updates, and security.	Organization handles maintenance, updates, and security.	
Accessibility	Accessible from anywhere via internet.	Typically accessible within company network; remote access requires VPN.	
Examples	Google Drive, AWS EC2, Microsoft 365	Internal servers for ERP, CRM, or file storage	



Hosting Techniques

Understanding Iaas: Infrastructure as a Service

VIRTUALIZED HARDWARE RESOURCES

Flexible and scalable solutions

USER CONTROL OVER OS

Customization and management options

POPULAR IAAS PROVIDERS

Examples include Amazon and Azure







Understanding Platform as a Service (PaaS)

MANAGED APP DEVELOPMENT PLATFORM

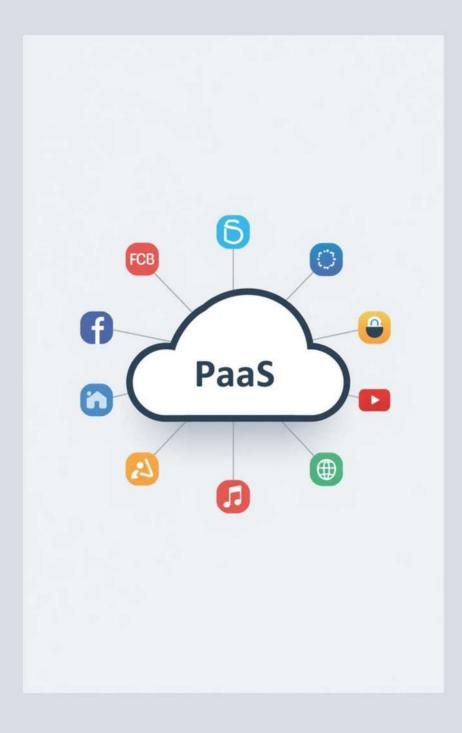
Simplifies development complexity

STREAMLINED DEPLOYMENT SOLUTIONS

Accelerates application launch speed

FLEXIBLE DEVELOPMENT ENVIRONMENTS

Supports diverse application needs







Understanding Software as a Service (SaaS)

FULLY MANAGED SOFTWARE ACCESS

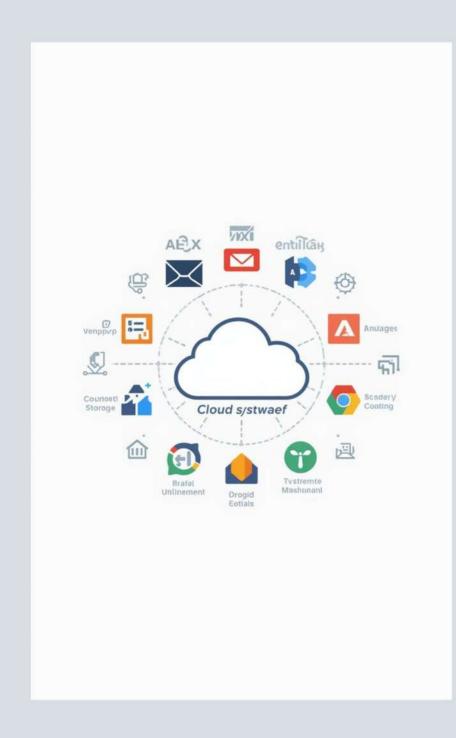
No installation required

AUTOMATIC UPDATES INCLUDED

Always up-to-date

ACCESSIBLE ANYWHERE

Browser-based convenience







laaS vs PaaS vs SaaS

Hosting Type	Definition	Examples	Use Case
laaS (Infrastructure as a Service)	Provides virtualized computing resources over the internet. Users manage apps, data, and OS; provider manages servers, storage, networking.	AWS EC2, Google Compute Engine, Microsoft Azure VMs	A company needs virtual servers without buying hardware.
PaaS (Platform as a Service)	Provides a platform to develop, run, and manage applications without managing infrastructure.	Heroku, Google App Engine, Azure App Services	Developers want to build apps without managing servers/databases.
SaaS (Software as a Service)	Software delivered over the internet on a subscription basis. Provider manages everything.	Gmail, Microsoft 365, Salesforce	Teams using email, collaboration, or CRM software without installing it locally.