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Solutions for higher performance!



Cloud computing is the delivery of computing services over the Internet. These services include servers, storage, databases, networking, software, and analytics. Cloud computing allows businesses to avoid the high costs of owning and maintaining their own IT infrastructure. Instead, they can pay for what they use, on a pay-as-you-go basis. This makes cloud computing a more flexible and cost-effective solution for businesses of all sizes.



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# Third Party Cloud Services

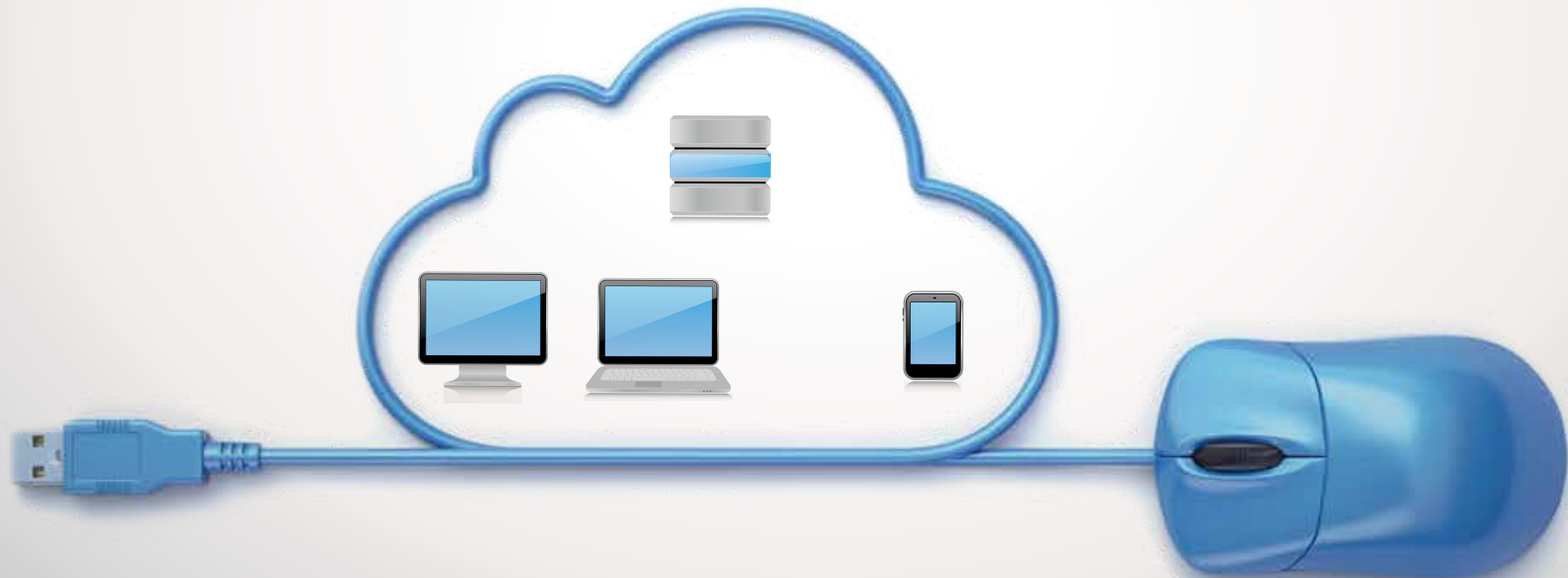
Its Adoption in the New Age

# Introduction

Cloud computing is the delivery of computing services over the Internet. Cloud services allow individuals and businesses to use software and hardware that are managed by third parties at remote locations.

Examples of cloud services include online file storage, social networking sites, webmail, and online business applications. The cloud computing model allows access to information and computer resources from anywhere that a network connection is available.

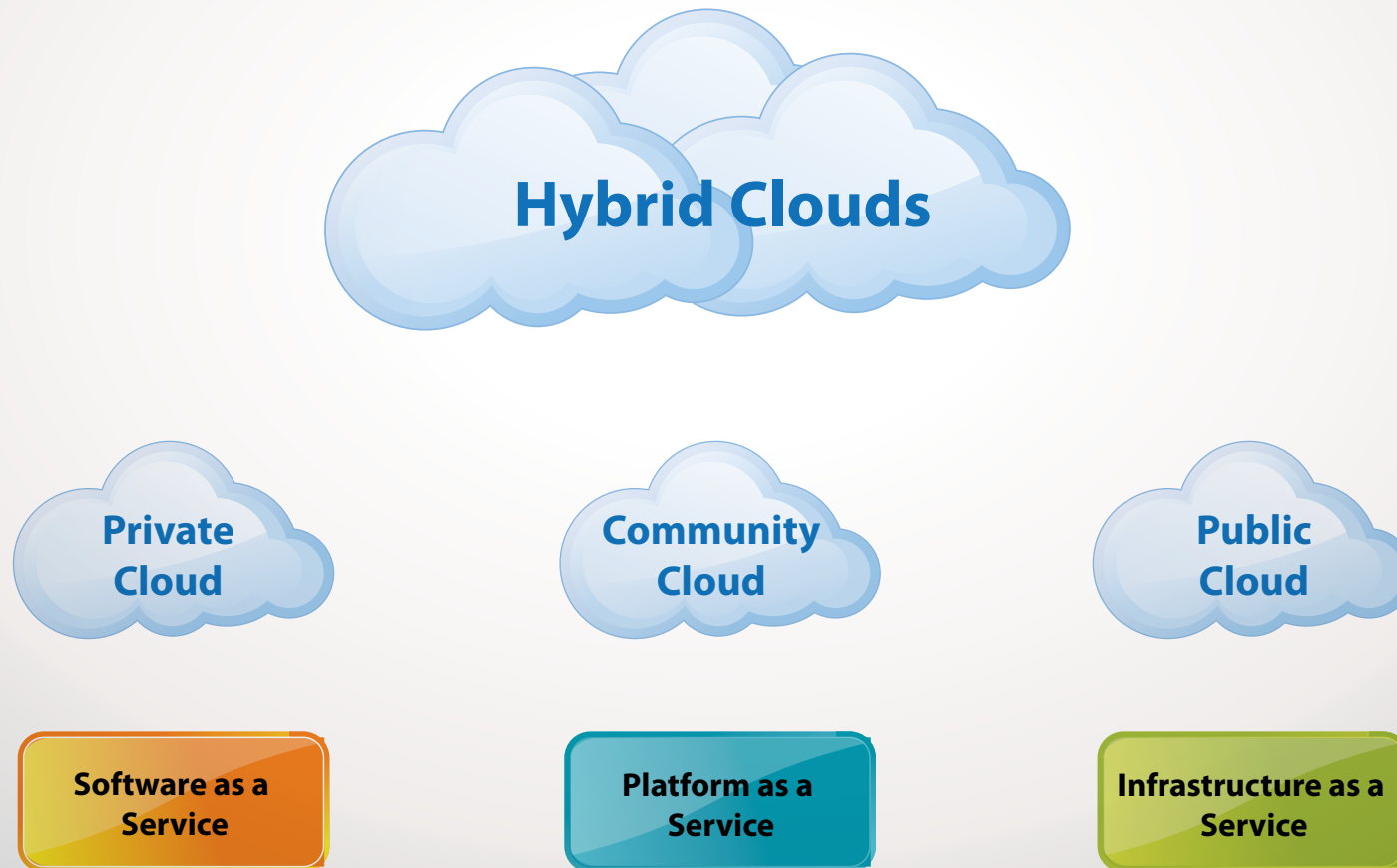
Cloud computing provides a shared pool of resources, including data storage space, networks, computer processing power, and specialized corporate and user applications.



# Service models

The cloud computing service models are Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS). In a Software as a Service model, a pre-made application, along with any required software, operating system, hardware, and network are provided.

In PaaS, an operating system, hardware, and network are provided, and the customer installs or develops its own software and applications. The IaaS model provides just the hardware and network; the customer installs or develops its own operating systems, software and applications.

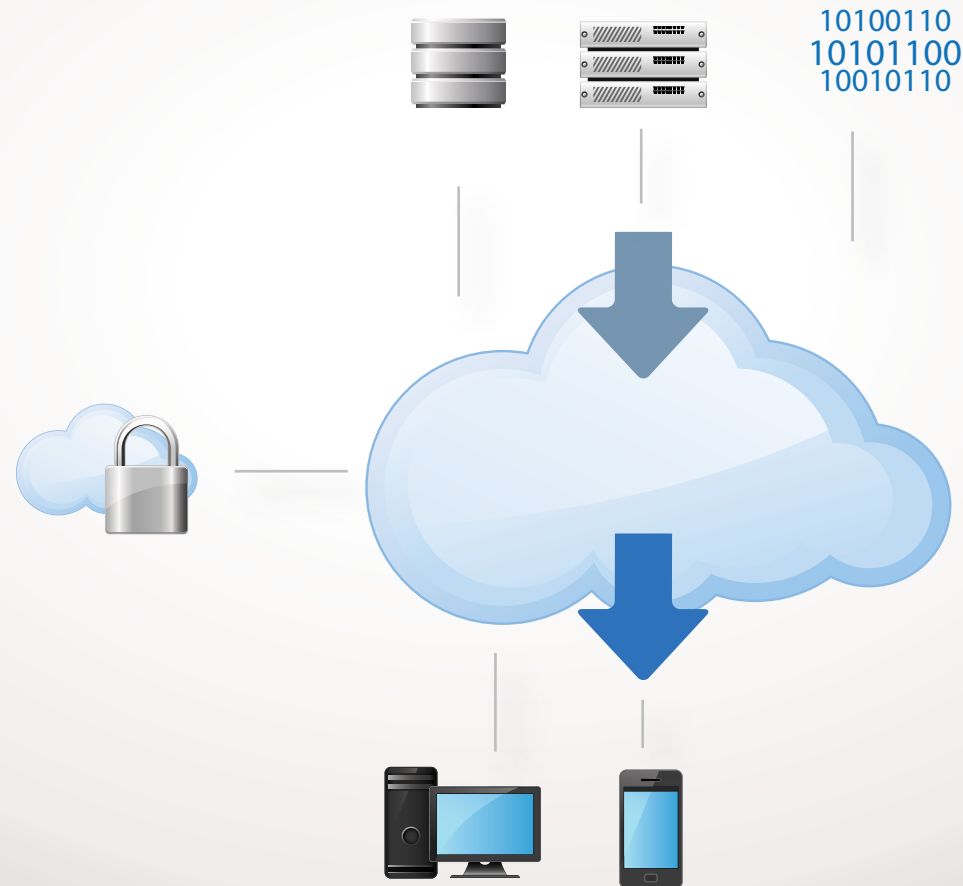




# Private Cloud Defined

Private cloud is the phrase used to describe a cloud computing platform that is implemented within the corporate firewall, under the control of the IT department.

A private cloud is designed to offer the same features and benefits of public cloud systems, but removes a number of objections to the cloud computing model including control over enterprise and customer data, worries about security, and issues connected to regulatory compliance.



## Private Cloud Security

A private cloud implementation aims to avoid many of the objections regarding cloud computing security. Because a private cloud setup is implemented safely within the corporate firewall, a private cloud provides more control over the company's data, and it ensures security, albeit with greater potential risk for data loss due to natural disaster.



## Private Cloud Project Strategy

To create a private cloud project strategy, a company will first need to identify which of its business practices can be made more efficient than before, as well as which repetitive manual tasks can be automated via the successful launch of a cloud computing project.

By creating a private cloud strategy, the resulting cloud will be able to deliver automatic, scalable server virtualization, providing the benefits of automated provision of resources and the optimal use of hardware within the IT infrastructure.



# Building a Private Cloud

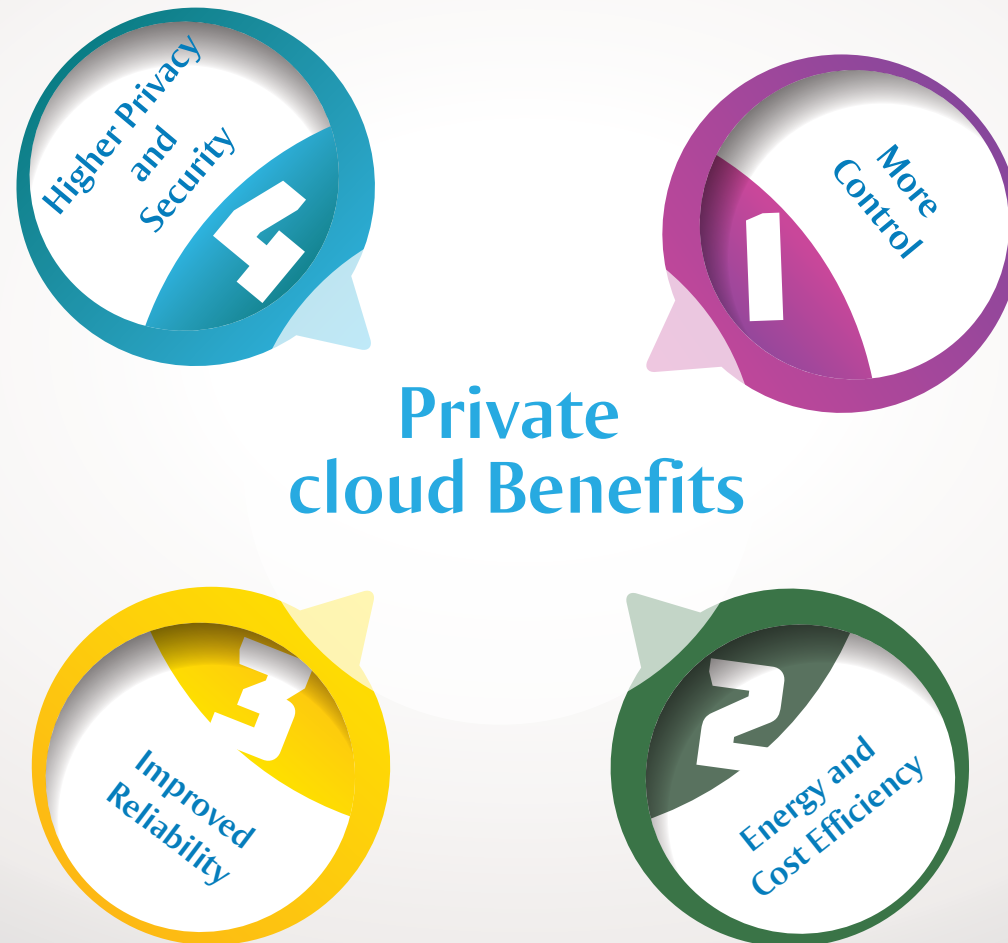
With the idea of building a private cloud a daunting proposition for many companies, the best advice for how to build a private cloud is to start small and then continue to grow the cloud computing project over time.

**In terms of specifics for how to set up a private cloud, a company needs to**

- » Research the need and benefits for building a private cloud, particularly in respect to selecting a public or hybrid cloud instead of a private cloud.
- » Analyze and ensure the proper processes and policies are in place to successfully build a secure private cloud.
- » Research and acquire the private cloud infrastructure and cloud-enabling software that will be used, such as OpenStack, CloudStack, Eucalyptus, etc.
- » Ensure the hypervisor(s) that will manage the virtual machines and virtualized storage are available or can be purchased and installed.
- » Develop and test the private cloud project in a non-mission-critical environment.
- » Train IT staff on how to manage the private cloud and employees and partners on how to access and use the cloud.

# Managed Private Cloud

Managed Private Cloud refers to a principle in software architecture where a single instance of the software runs on a server, serving a single client organization (tenant), and managed by a third-party. This is in contrast to multitenancy where multiple client organizations are on a single server, or an on-premises deployment where the client organization hosts their own instance. Managed Private Clouds also fall under the larger umbrella of cloud computing.





# Benefits and Challenges of Managed Private Cloud

Customers who choose a managed private cloud deployment usually choose them because of their desire for an efficient cloud deployment, but the need for customization or integration only available in a single-tenant environment.

## Key Benefits

Feature	Multi-tenant	On-Premise	Managed Private Cloud
Subscription Purchase	X		X
No Infrastructure Purchase	X		X
No System Admin	X		X
Rapid Deployment	X		X
Integration Capability		X	X
Perpetual Software Licensing		X	X
Upgrades on Customer Schedule		X	X

## Key Drawbacks

Feature	Multi-tenant	On-Premise	Managed Private Cloud
Private Cloud			
Data Prone to Remote 3rd Party Access	x		x
Hardware Not Auditable	x		x

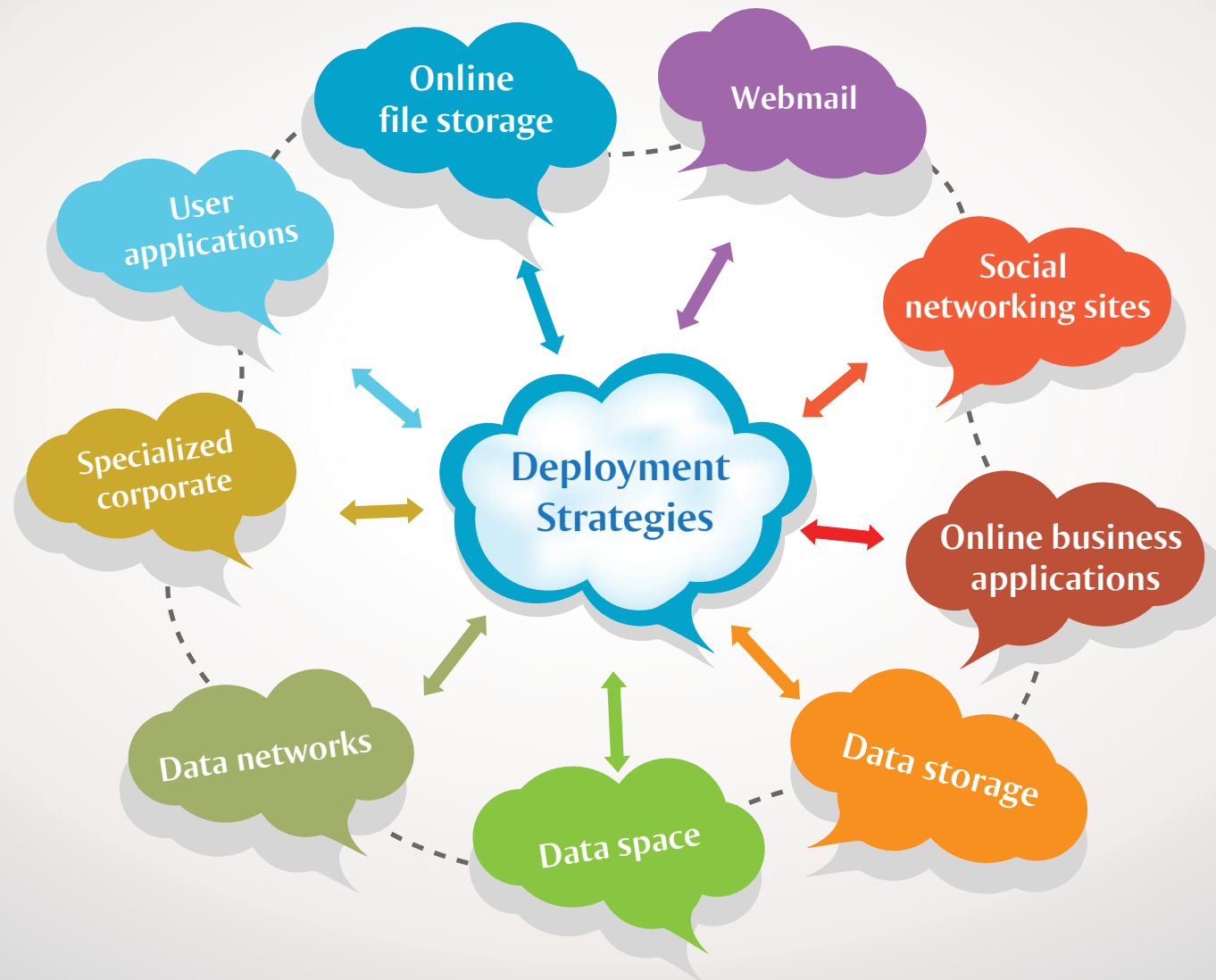
Since deployments are done in a single-tenant environment, it is usually cost-prohibitive for small and medium-sized businesses.

### Common Customizations and Integration include

- » Active Directory
- » Learning Management Systems
- » Single Sign-on
- » Video Teleconferencing

# Deployment Strategies

Software companies have taken a variety of strategies in the Managed Private Cloud realm. A few software companies have provided managed private cloud options internally. Companies that offer an on-premises deployment option, by definition enable third-party companies to market Managed Private Cloud solutions.



# Amazon Virtual Private Cloud

Amazon Virtual Private Cloud (Amazon VPC) lets you set up a private cloud (a private, isolated section) within the Amazon Web Services (AWS) cloud computing service. Using Amazon VPC, organizations can launch AWS resources in a virtual network topology.

Amazon VPC provides organizations complete control over the virtual networking environment, including selection of your own IP address range, creation of subnets and configuration of route tables and network gateways.

## Features

Additionally, Amazon VPC provides security features such as security groups and network access control lists to enable inbound and outbound filtering at the instance level and subnet level. Users can also choose to launch Dedicated Instances that run on hardware dedicated to a single customer for additional isolation.



## About Orchestrate

Orchestrate is a US based business process management organization with Headquarters in Dallas, Texas. Orchestrate offers services to diverse outsourcing requirements of clients in an extensive range of businesses including IT, finance, mortgage, and contact center. We provide a comprehensive suite of technology and services to our clients that help accelerate sales and boost their profit. Our solutions and services help SMEs and enterprises to implement technologies and processes that boost their profitability across the organization.



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