SNS COLLEGE OF ENGINEERING

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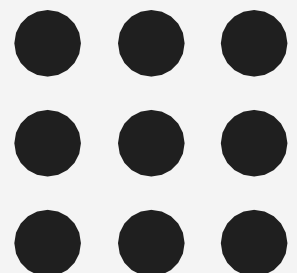**Approved by AICTE, Recognized by UGC & Affiliated to Anna University, Chennai**

Department of Information Technology

Course Name – CS8791 Cloud Computing

IV Year / VII Semester

Unit 3 – Cloud Architecture, Services and Storage

Topic 3- Private Cloud

Private Cloud

- Provided to single Cloud Consumers organization the exclusive access to and usage of the infrastructure and computational resources.

- The cloud infrastructure is operated solely for an organization

- It may be managed either by the Cloud Consumer organization or by a third party, and may be hosted on the organizations premises

- Private clouds give local users a flexible and agile private infrastructure to run service workloads within their administrative domains.

- deliver more efficient and convenient cloud services

- gives greater customization and organizational control
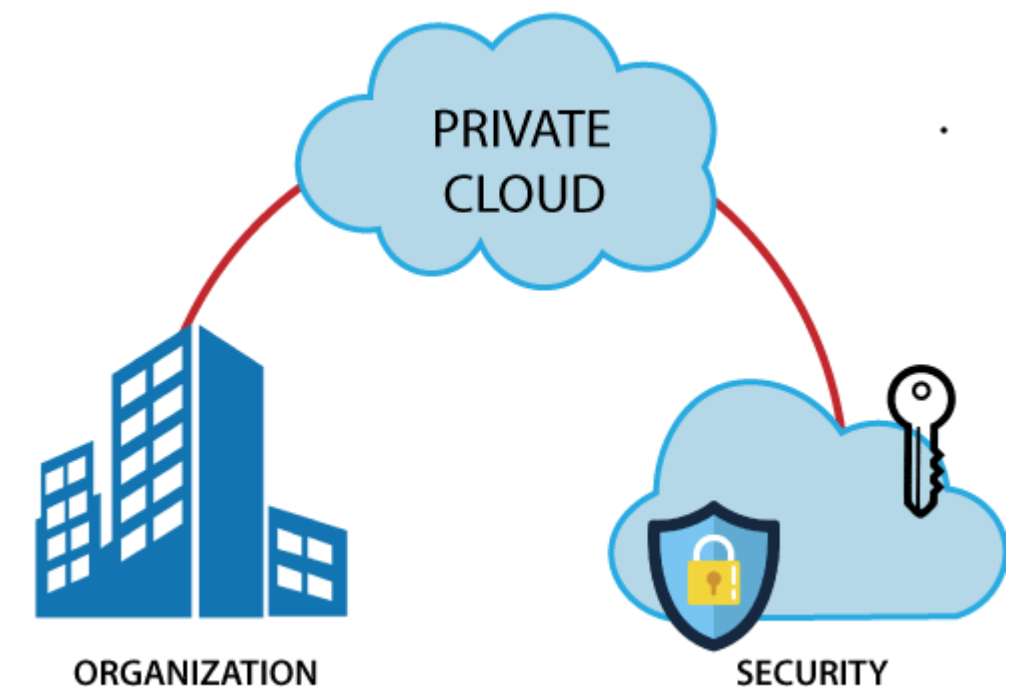
Private Cloud

- security management and day to day operations are relegated to internal IT or third party vendor, with contractual SLAs.

- Hence customer of private cloud service offering has high degree of control and physical and security aspects of the cloud.

- Security concerns are less critical, since sensitive information does not flow out of the private infrastructure.

- Contrary to popular belief, private cloud may exist off premises and can be managed by third party

PRIVATE CLOUD
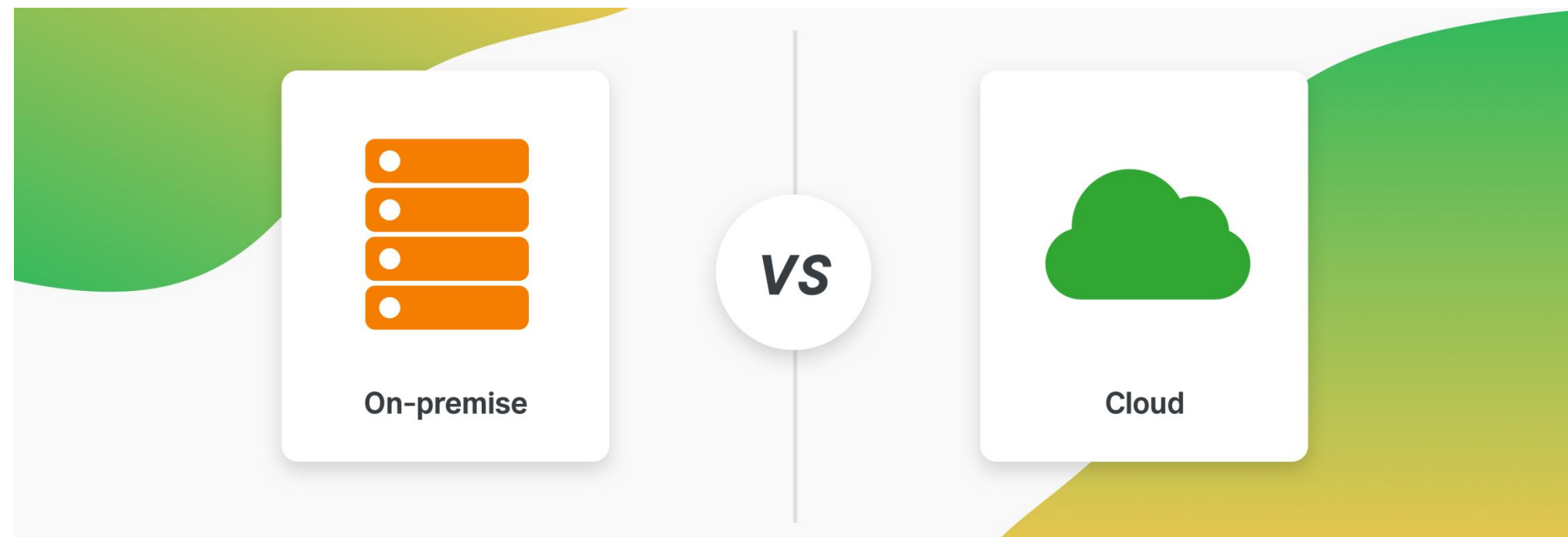
Private Cloud

Two private cloud scenarios exist, as follows,

On premises or On site Private Cloud
- Applies to private cloud implemented at a customer premises.

Outsourced Private Cloud
- Applies to private clouds where the server side is outsourced to a hosting company.

Private Cloud

Key advantages of using a private cloud computing infrastructure
- Customer information protection.

- In-house security is easier to maintain and rely on.

- Infrastructure ensuring SLAs.

- Compliance with standard procedures and operations.

- Private clouds attempt to achieve customization and offer higher efficiency, resiliency, security, and privacy.
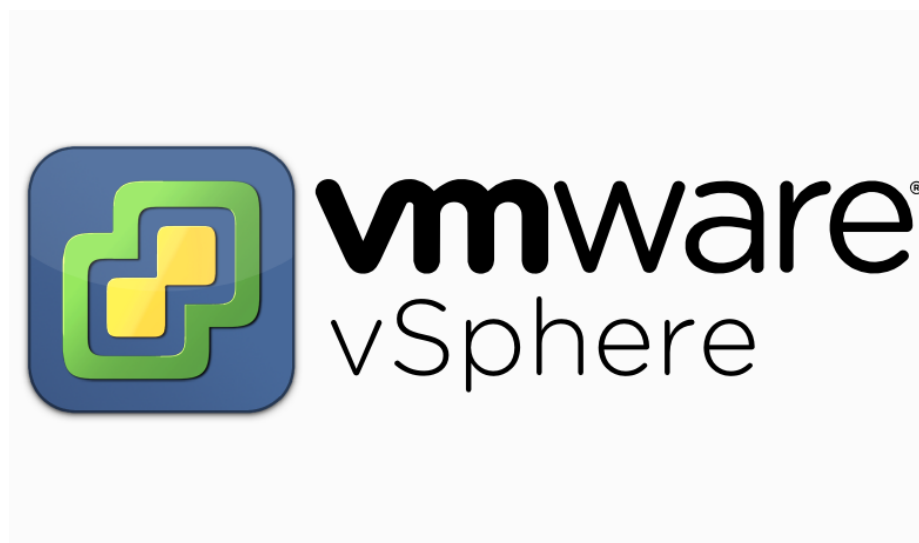
Private Cloud

Drawback

- From an architectural point of view, private clouds can be implemented on more heterogeneous hardware:

- They generally rely on the existing IT infrastructure already deployed on the private premises.

- Private clouds can provide in-house solutions for cloud computing,

- but if compared to public clouds they exhibit more limited capability to scale elastically on demand.

Private Cloud

Example

- VMWare vSphere

- Openstack

- Amazon VPC (Virtual Private Cloud)

- Microsoft ECI data center

THANK YOU