Introduction to Cloud Computing

CHAITANYA GAAJULA

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Agenda

- Introduction to Cloud Computing
- Advantages of Cloud over On-Premises
- Major Cloud Vendors
- Cloud Computing Characteristics
- Overview of Service Models
- Service Models Demo
- Deployment Models

Cloud Computing

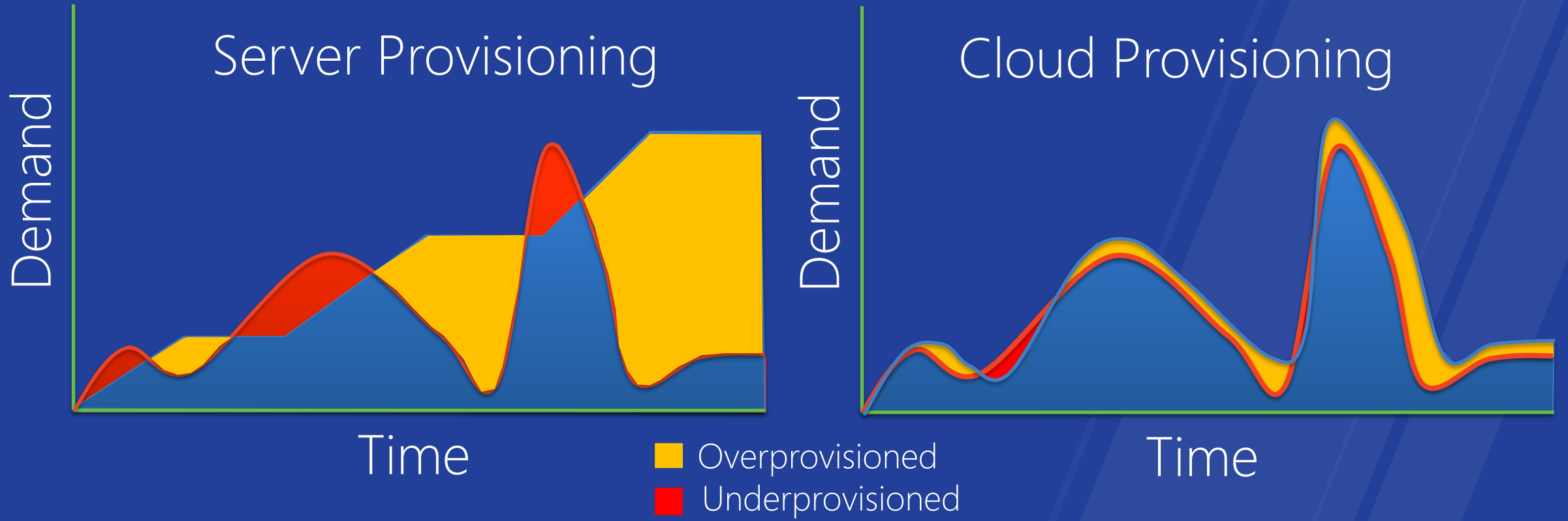
Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

"Cloud computing is a style of computing where massively scalable IT-related capabilities are provided as a service across the Internet to multiple external customers"

"Cloud computing is Web-based processing, whereby shared resources, software, and information are provided to computers and other devices (such as smart phones) on demand over the Internet."

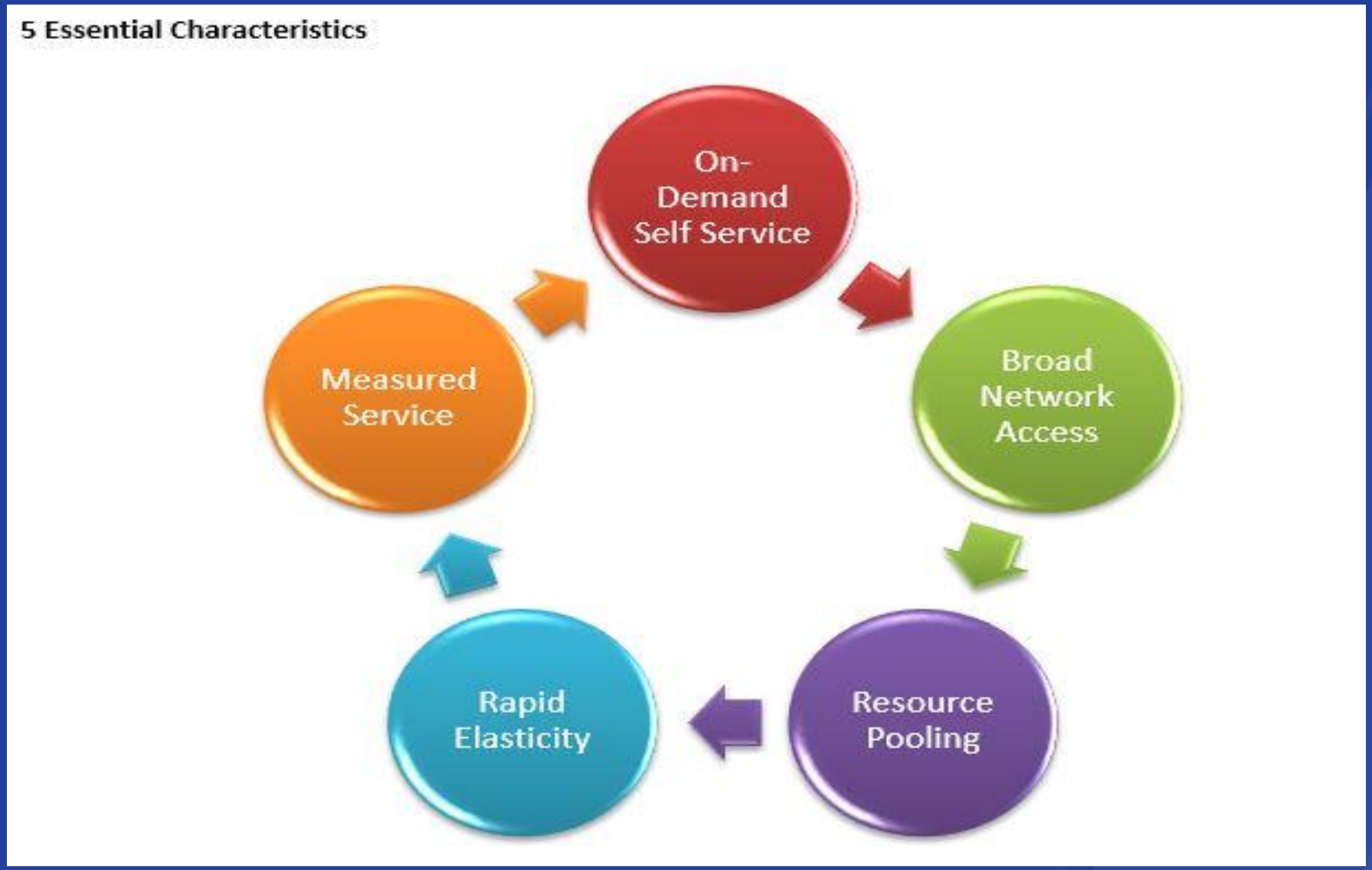
What is a “Cloud”?

- Cloud: on-demand, scalable, multi-tenant, self-service compute and storage resources



Cloud Vendors

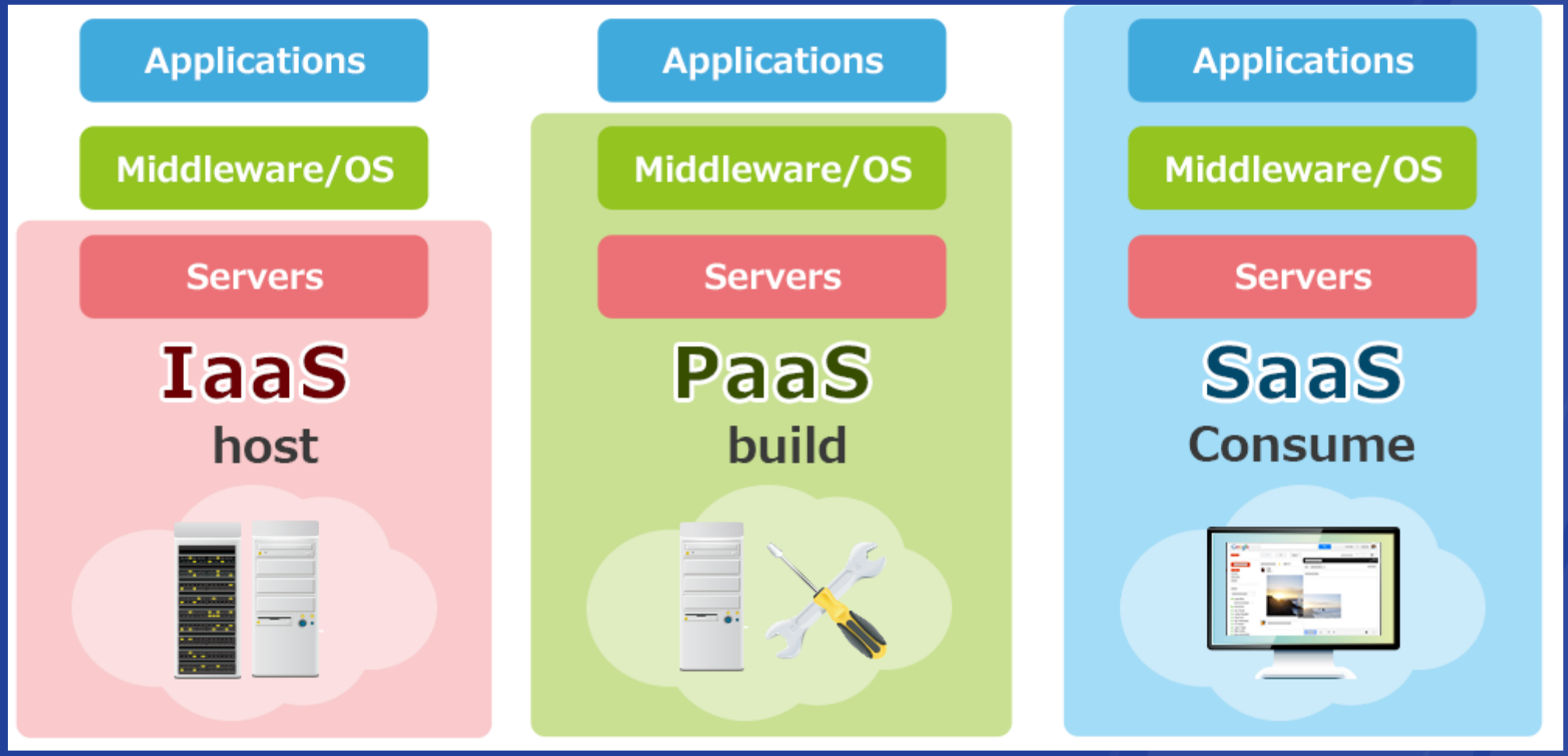
Cloud Computing Characteristics



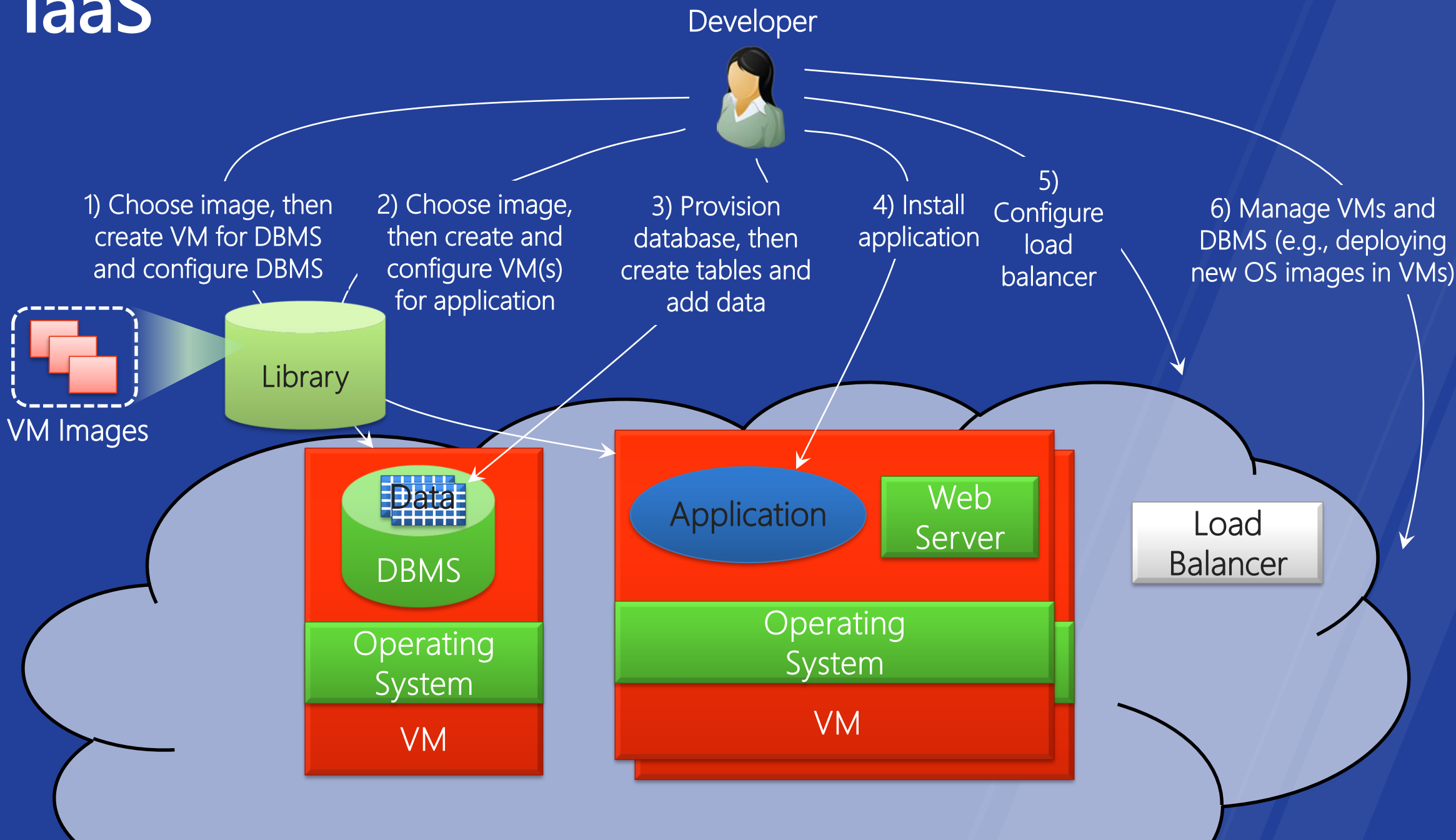
Service Models

- Infrastructure as a Service (IaaS):
  basic compute and storage resources
  - On-demand servers
  - Amazon EC2, VMWare vCloud
- Platform as a Service (PaaS): cloud application infrastructure
  - On-demand application-hosting environment
  - E.g. Google AppEngine, Salesforce.com, Windows Azure
- Software as a Service (SaaS): cloud applications
  - On-demand applications
  - E.g. Office 365, GMail, Microsoft Office Web Companions

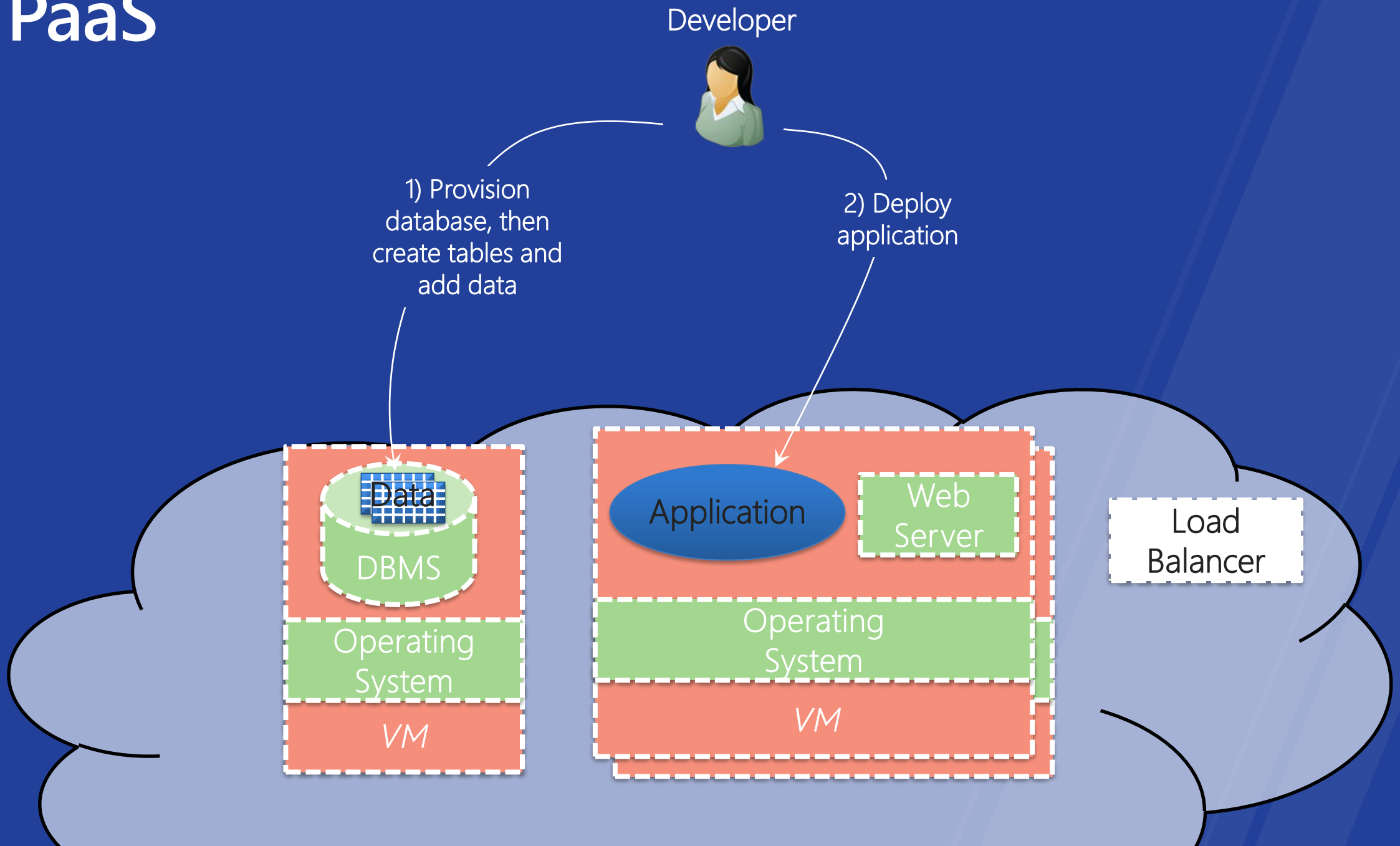
Service Models



IaaS


Developer
1) Choose image, then create VM for DBMS and configure DBMS
2) Choose image, then create and configure VM(s) for application
3) Provision database, then create tables and add data
4) Install application
5) Configure load balancer
6) Manage VMs and DBMS (e.g., deploying new OS images in VMs)
VM Images
Library
Data
DBMS
Operating System
VM
Application
Web Server
Operating System
VM
Load Balancer

PaaS


Developer
1) Provision database, then create tables and add data
2) Deploy application
Data
DBMS
Operating System
VM
Application
Web Server
Operating System
VM
Load Balancer

SaaS

SaaS Examples, General Market

SaaS For Enterprises

ebay stores

amazon web services™

Google Apps

salesforce.com
Success On Demand.

SAP
SAP CRM ON-DEMAND SOLUTION

ORACLE
Oracle On Demand

YAHOO! SMALL BUSINESS

SaaS For Consumers

myspace.com a place for friends

Zorpia.com

hi5

facebook

vimeo

bebo

YouTube

friendster

metacafe

BREAK

dailymotion

vidiLife

blip.tv

webshots

Photobucket.com

Tickle Friends!

myphotoalbum

smugmug

fotki

dotphoto

flickr

eyespot

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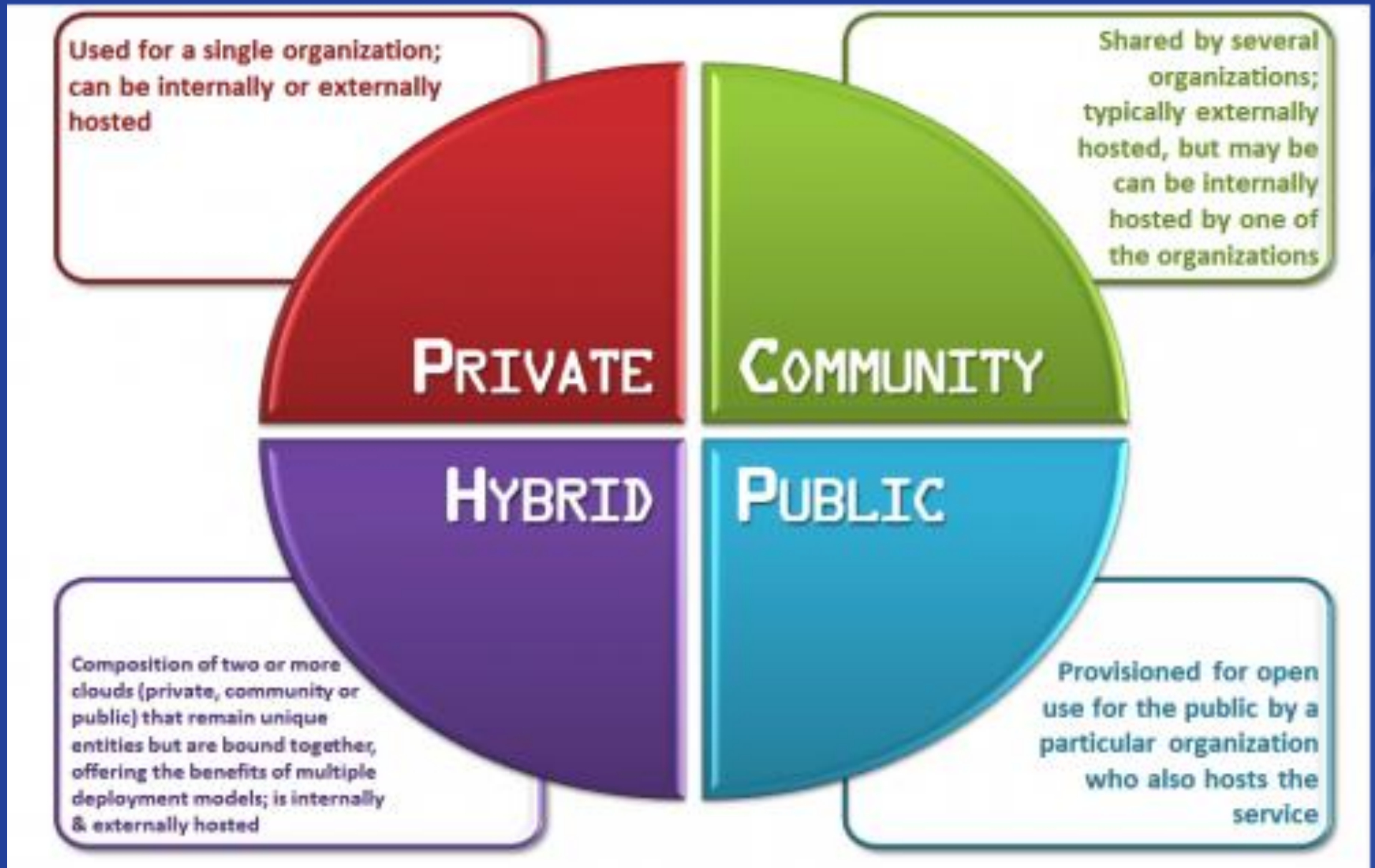
Deployment Models



Thank You