TYPES OF CLOUD COMPUTING

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LINUX ADMINISTRATOR AND CERTIFIED SOLUTIONS ARCHITECT AWS

ROADMAP

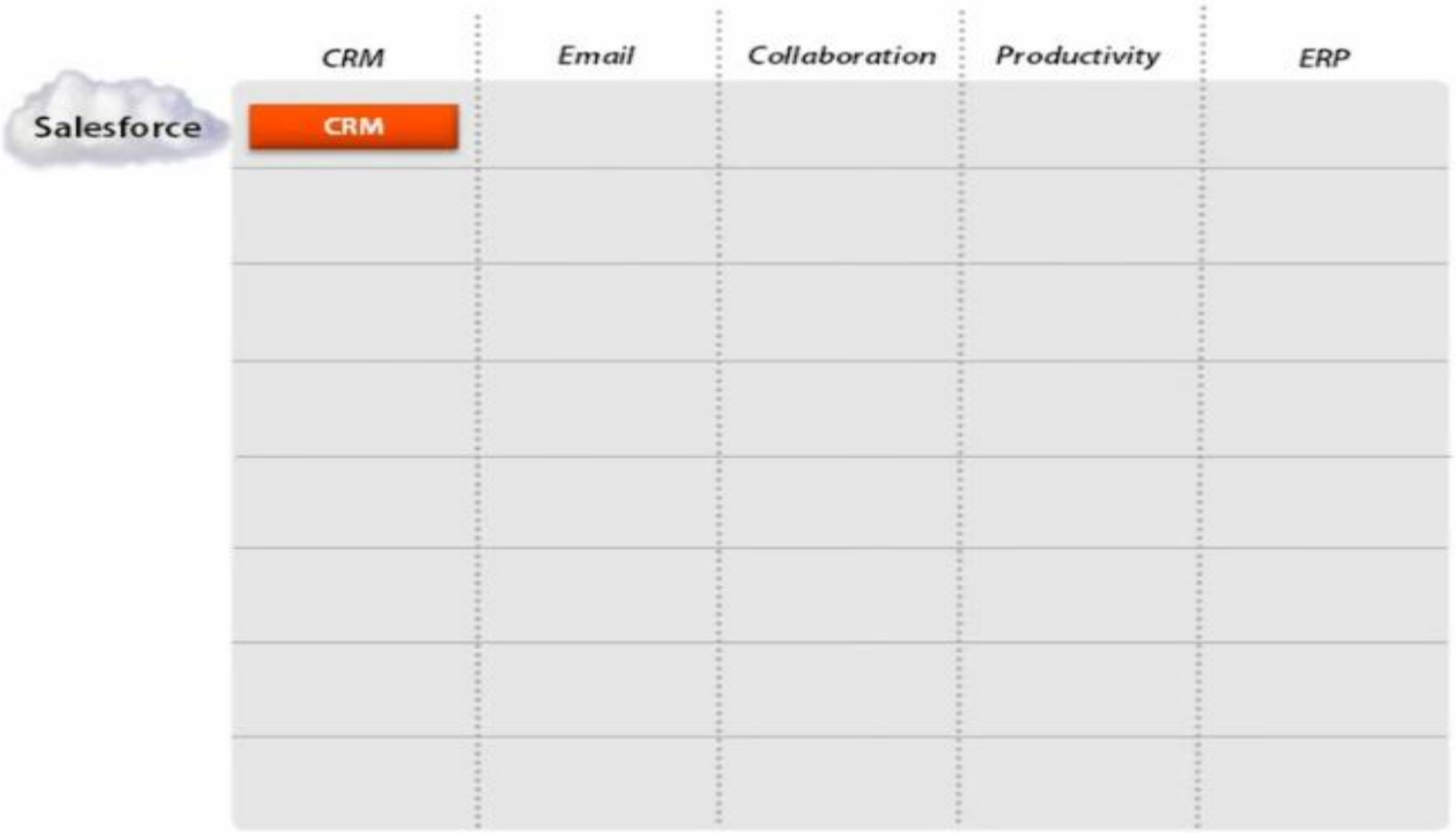
- **Service models**
- **Deployment models**
- **Horizontal vs. Vertical scaling**

Software as a Service (SaaS)

Nist definition of SaaS:

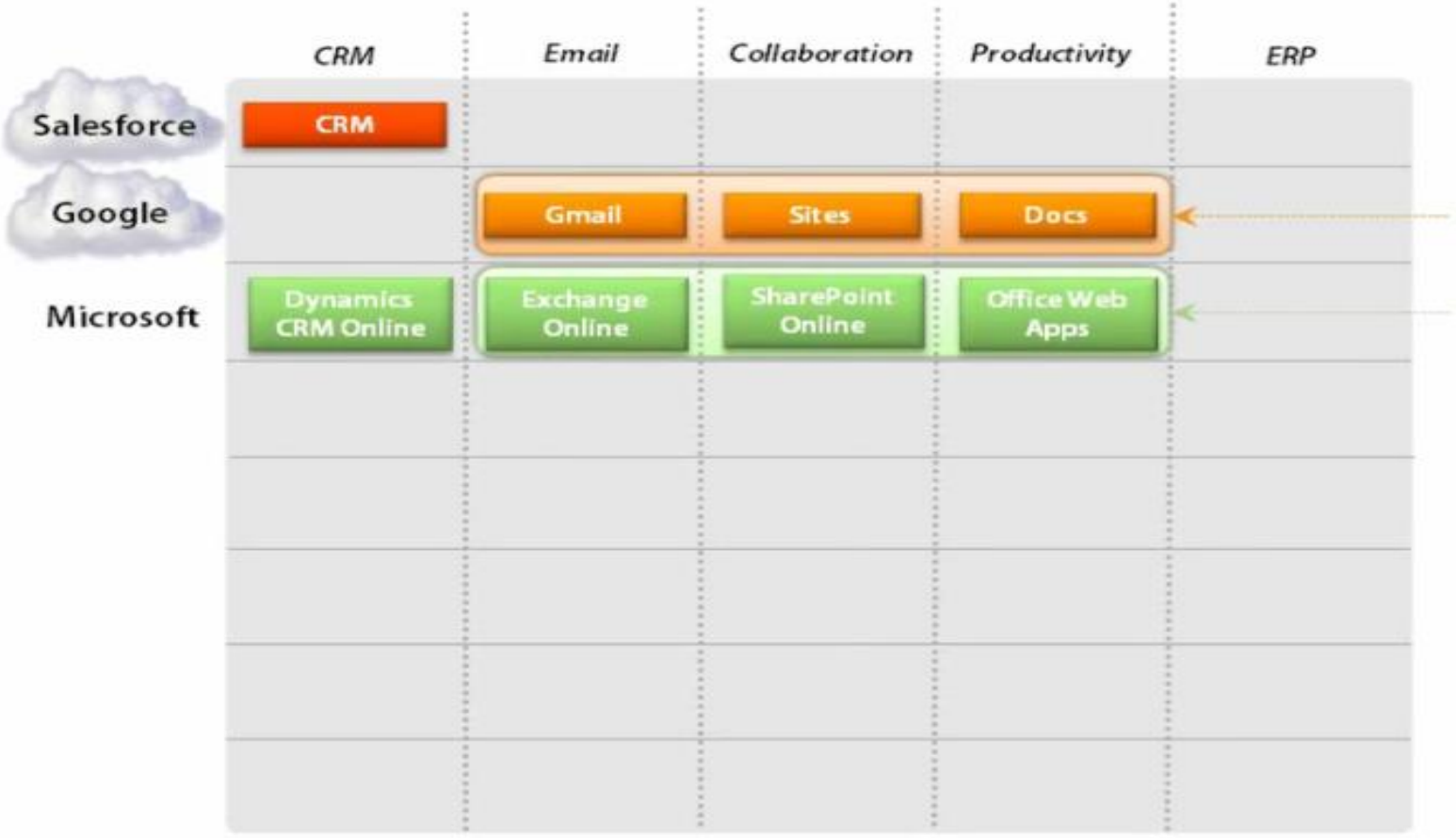
The Capability provided to the consumer is to use the provider's applications running on a cloud infrastructure. The applications are accessible from various client devices.

SaaS Examples

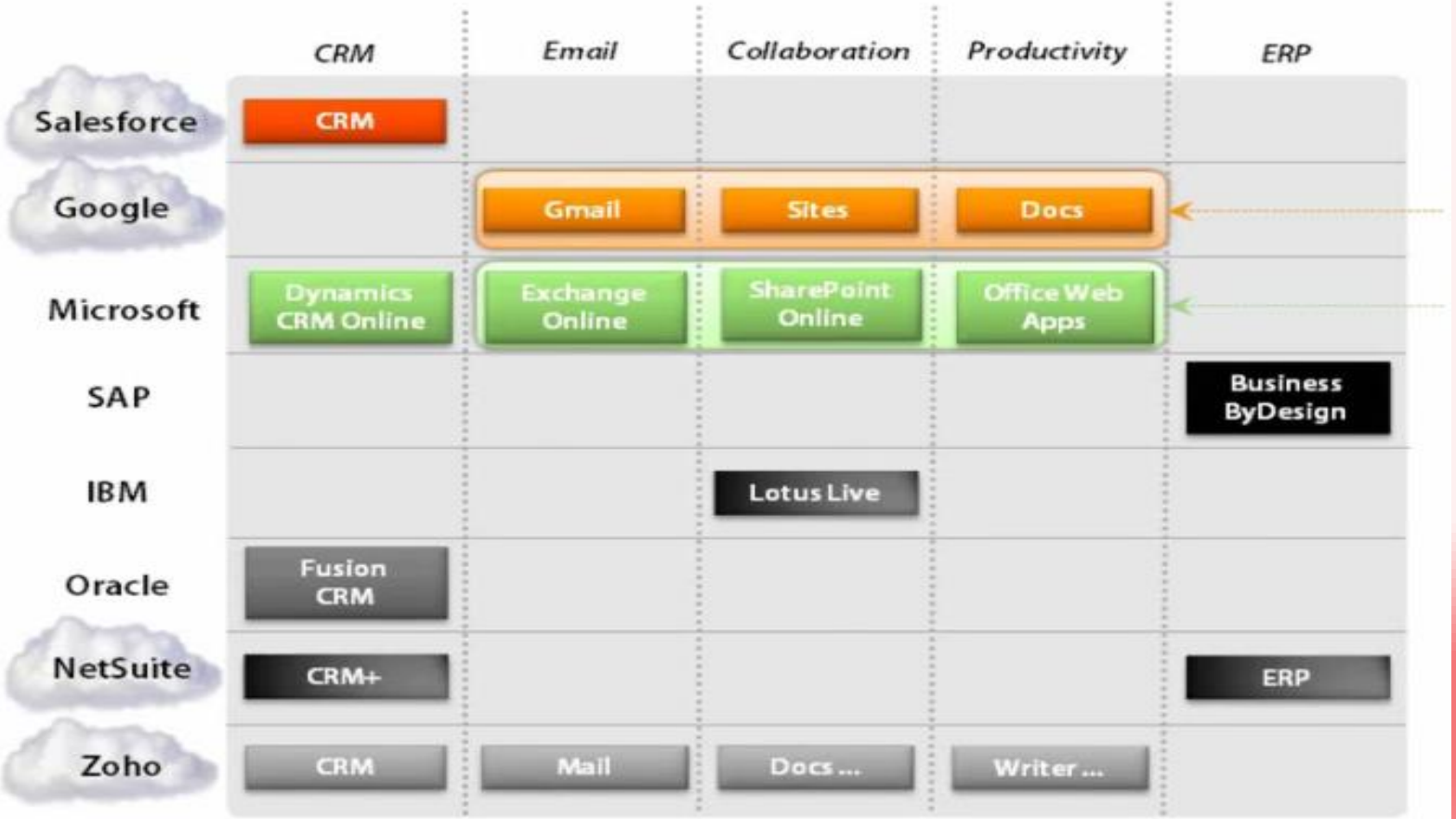


SaaS Examples

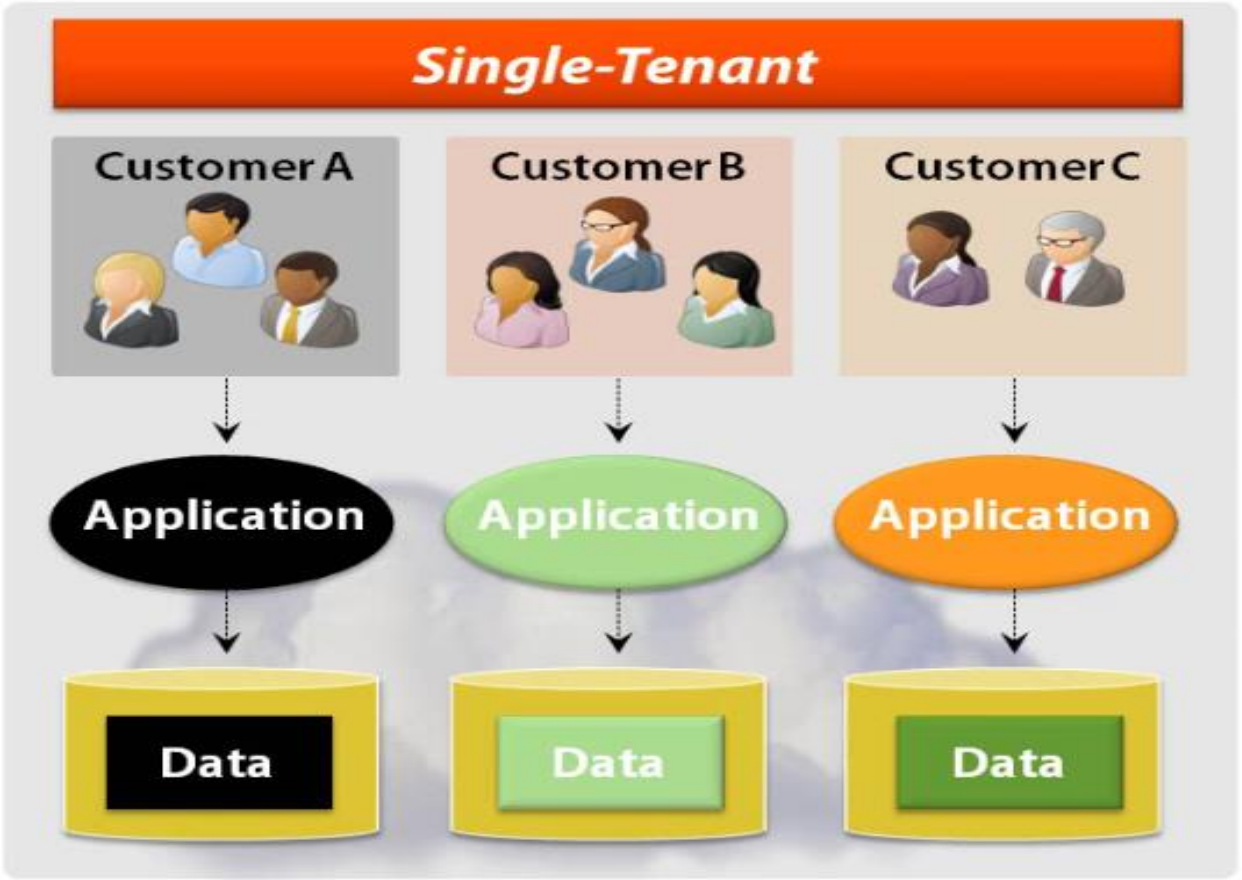
SaaS Examples



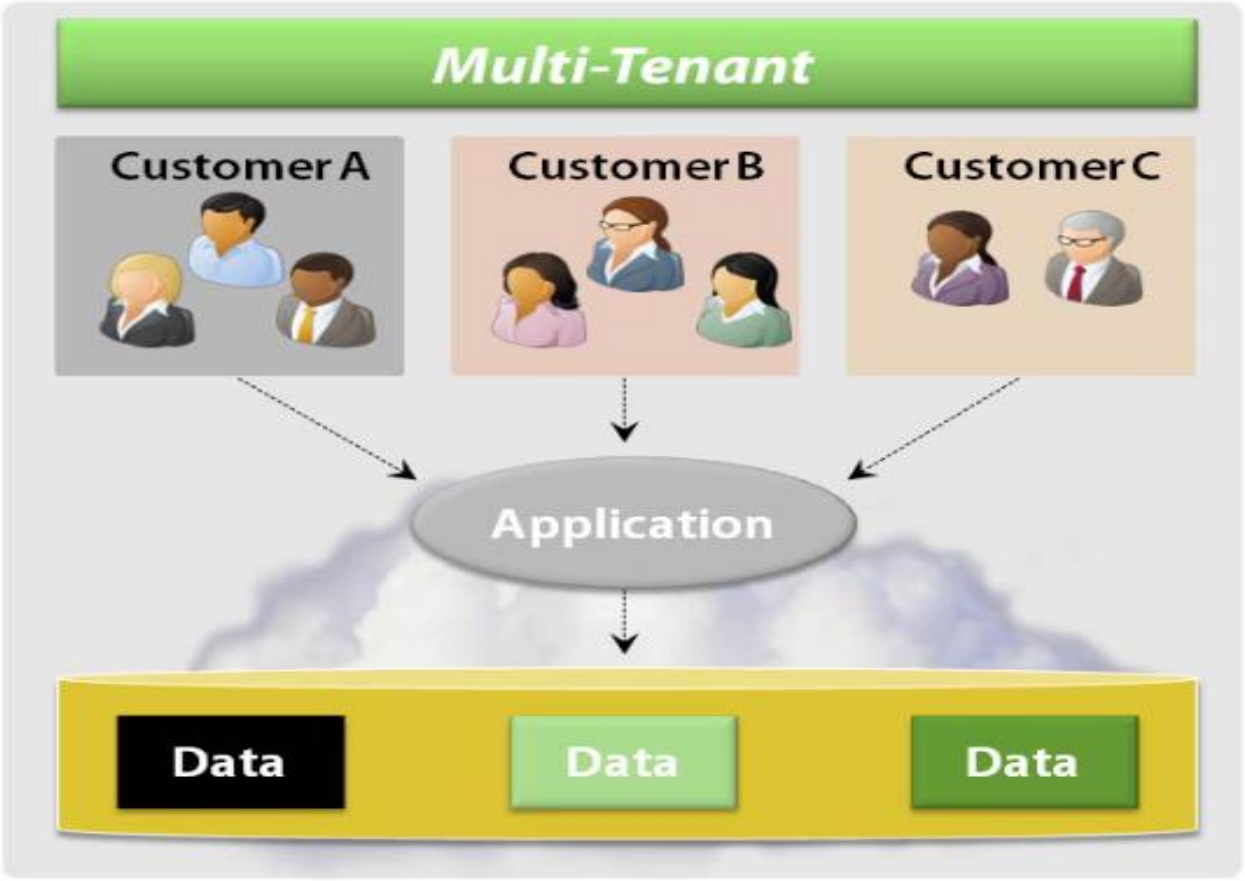
SaaS Examples



SaaS Options: Single-Tenant Applications



SaaS Options: Multi-Tenant Applications



Platform as a Service (PaaS)

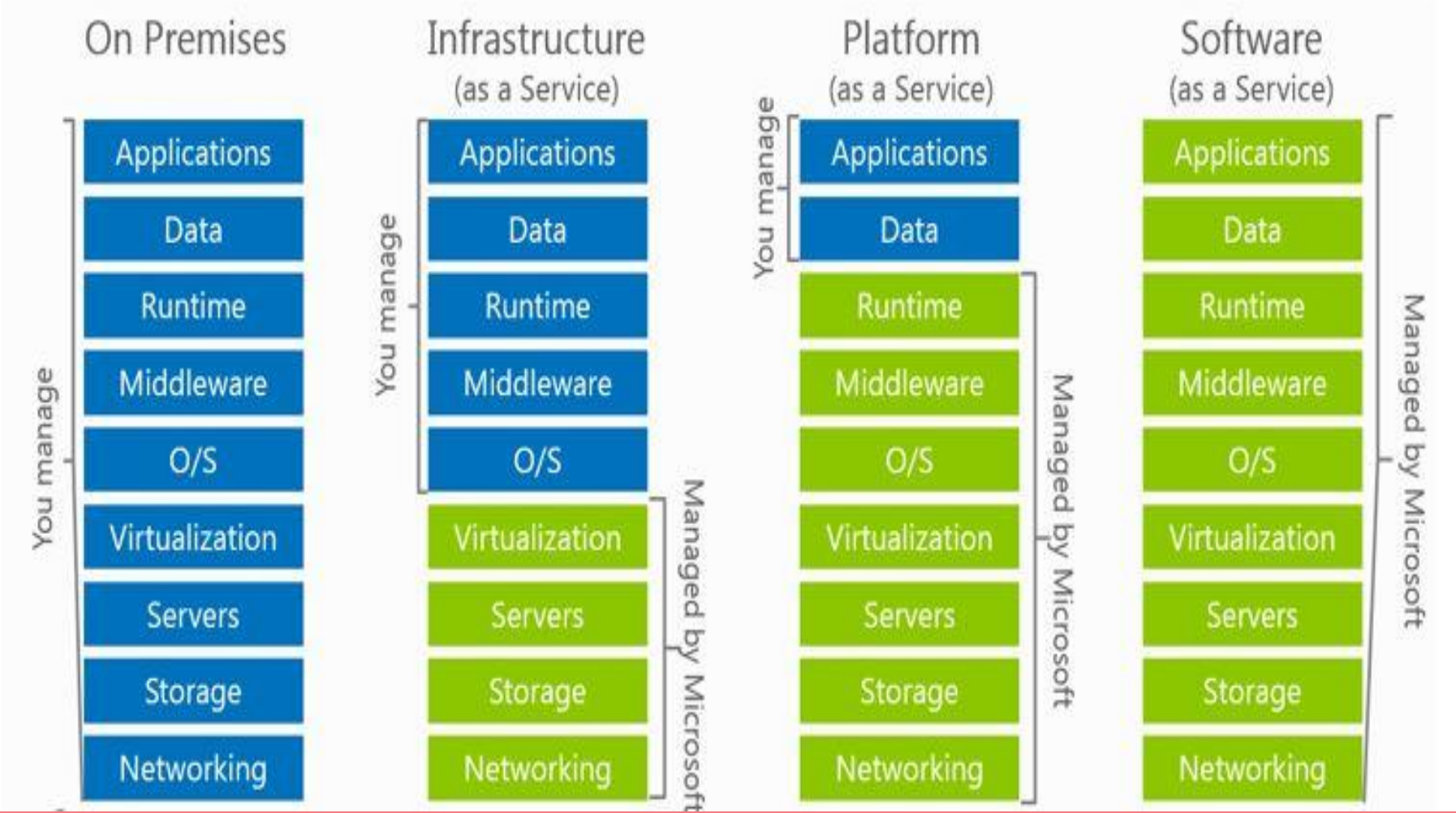
NIST definition of PaaS:

The capability provided to the consumer is to deploy on to the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools supported by the provider.

Infrastructure as a Service (IaaS)

NIST definition of IAAS:

The capability provided to the consumer is to provision processing, storage, networks, and other fundamental computing resources where the consumer is able to deploy and run arbitrary software, which can include operating systems and applications.


On Premises
Applications
Data
Runtime
Middleware
O/S
Virtualization
Servers
Storage
Networking
You manage
Infrastructure
(as a Service)
Applications
Data
Runtime
Middleware
O/S
Virtualization
Servers
Storage
Networking
You manage
Managed by Microsoft
Platform
(as a Service)
Applications
Data
Runtime
Middleware
O/S
Virtualization
Servers
Storage
Networking
You manage
Managed by Microsoft
Software
(as a Service)
Applications
Data
Runtime
Middleware
O/S
Virtualization
Servers
Storage
Networking
Managed by Microsoft

PRIVATE CLOUD

Private cloud: The cloud infrastructure is provisioned for exclusive use by a single organization comprising multiple consumers (e.g., business units). It may be owned, managed, and operated by the organization, a third party, or some combination of them, and it may exist on or off premises.

COMMUNITY CLOUD

Community cloud: The cloud infrastructure is provisioned for exclusive use by a specific community of consumers from organizations that have shared concerns (e.g., mission, security requirements, policy, and compliance considerations). It may be owned, managed, and operated by one or more of the organizations in the community, a third party, or some combination of them, and it may exist on or off premises.

PUBLIC CLOUD

Public cloud: The cloud infrastructure is provisioned for open use by the general public. It may be owned, managed, and operated by a business, academic, or government organization, or some combination of them. It exists on the premises of the cloud provider.

HYBRID CLOUD

Hybrid cloud: The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities, but are bound together by standardized or proprietary technology that enables data and application portability (e.g., cloud bursting for load balancing between clouds).

Thank you