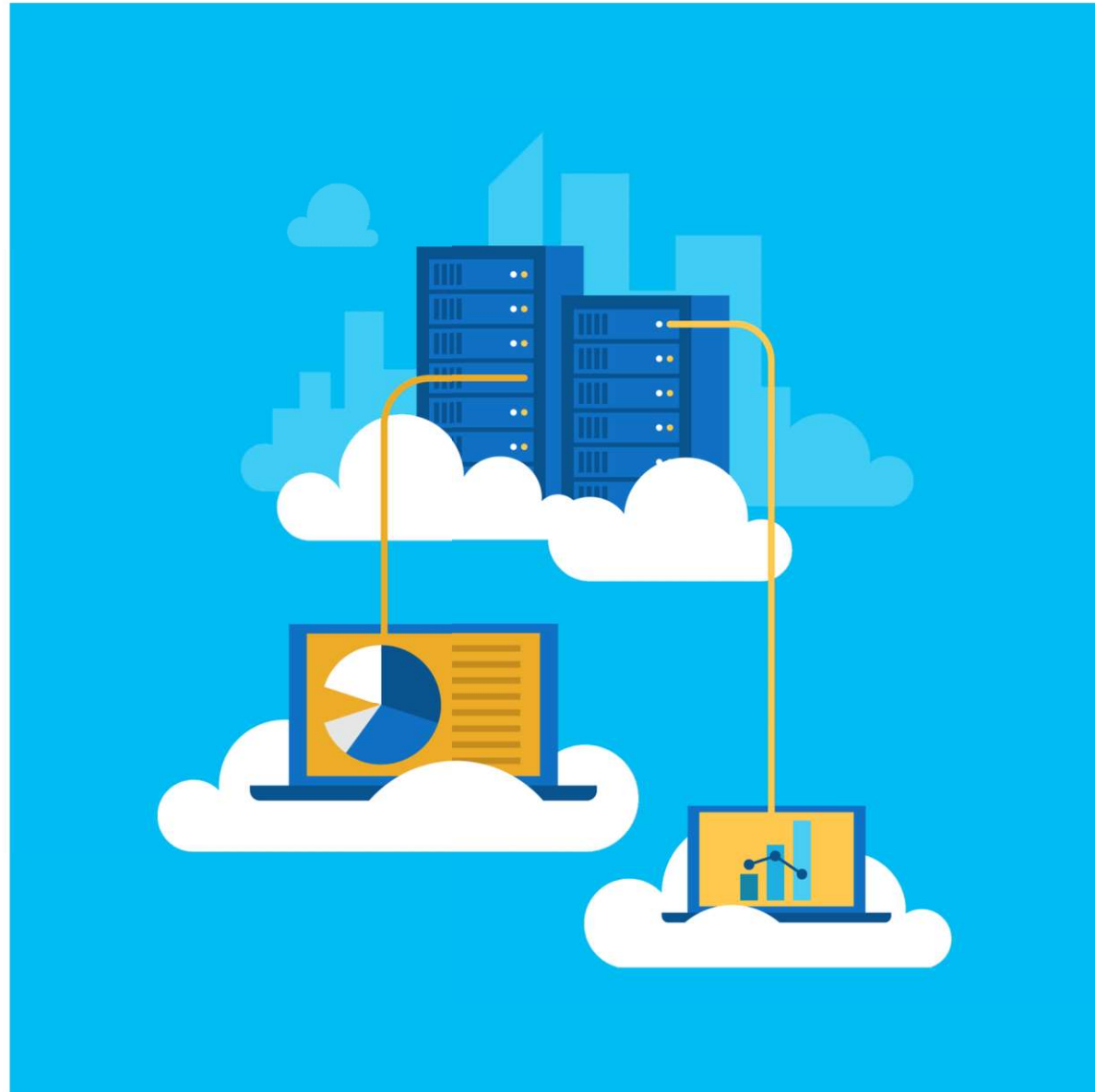
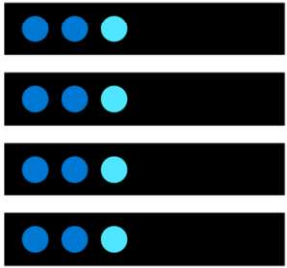




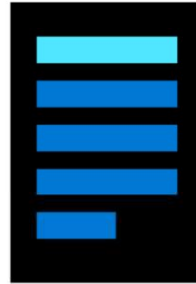
Explore Microsoft Azure Cloud  
concepts



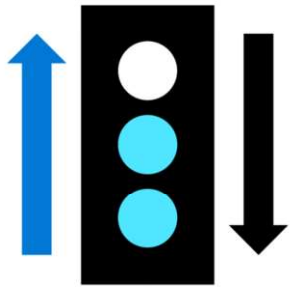
## Define cloud computing



Compute



Storage



Networking



Analytics



Cloud providers include  
Microsoft, Amazon, and Google

## Try This Exercise

1. Open a browser.
2. Enter the URL [portal.azure.com](https://portal.azure.com)
3. Take a few minutes and look at the site.
4. Can you find:
  1. where to create a resource like a Virtual Machine?
  2. how to launch your Dashboard to see what resources you have?
  3. where Microsoft Learn training site is linked right into Azure to help you learn?
5. Close your browser.

## Explore key cloud concepts

High availability

Fault tolerance

Scalability

Elasticity

Global reach

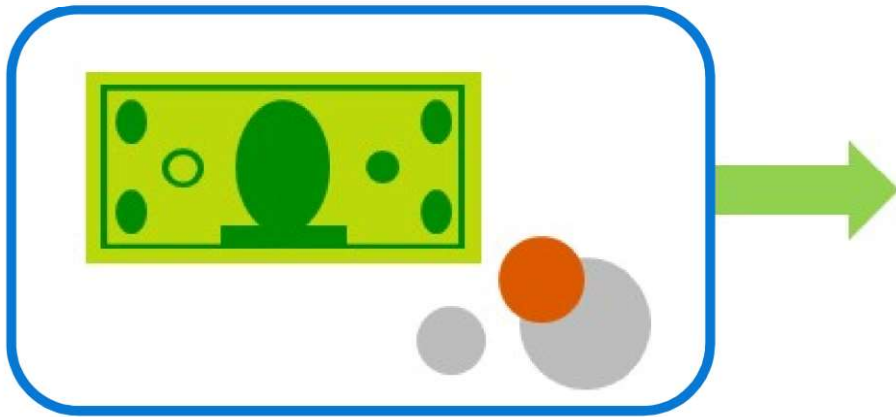
Predictive cost

Agility

Security

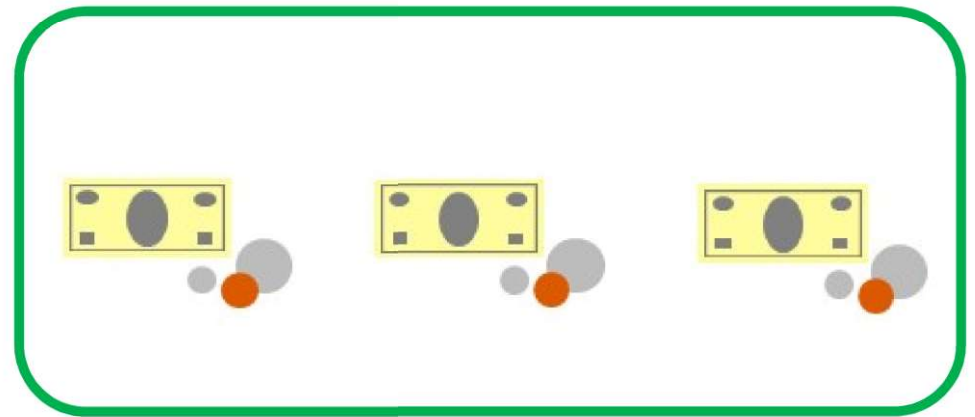
Disaster recovery

## Compare CapEx vs. OpEx



### Capital Expenditure (CapEx)

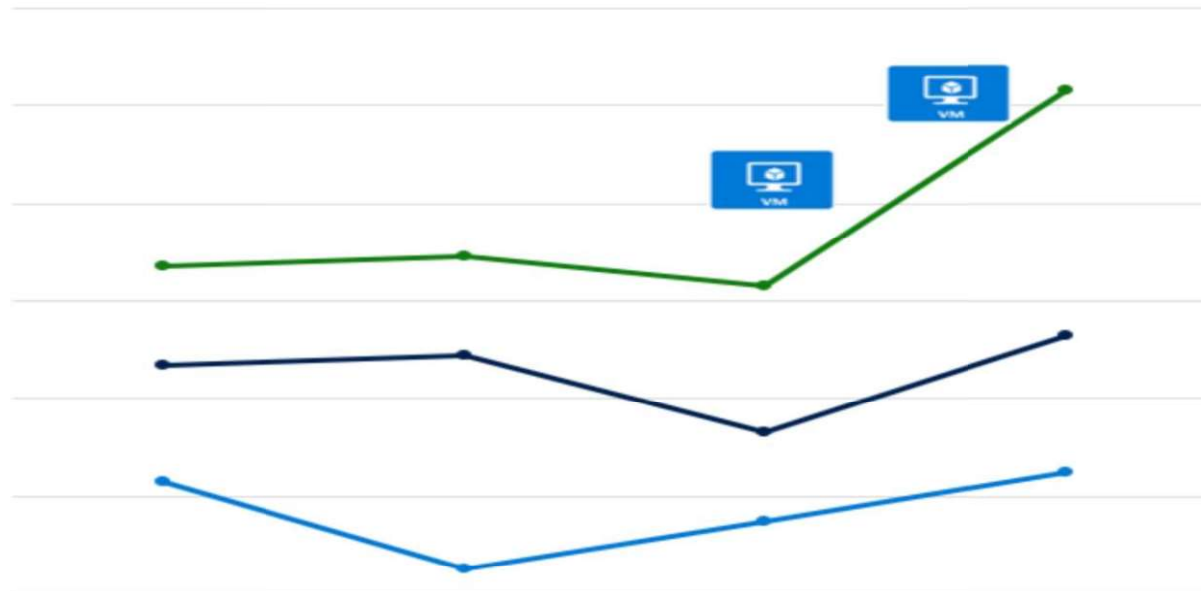
- High upfront cost
- Value of investment reduces over time.



### Operational Expenditure (OpEx)

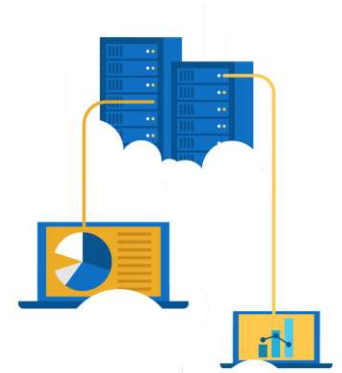
- Spend as needed.
- No upfront cost, pay-as-you use.

## Define consumption-based model



Consumption-based model = Pay only for the resources you use

## Module: Distinguish types of cloud models



## Define public cloud

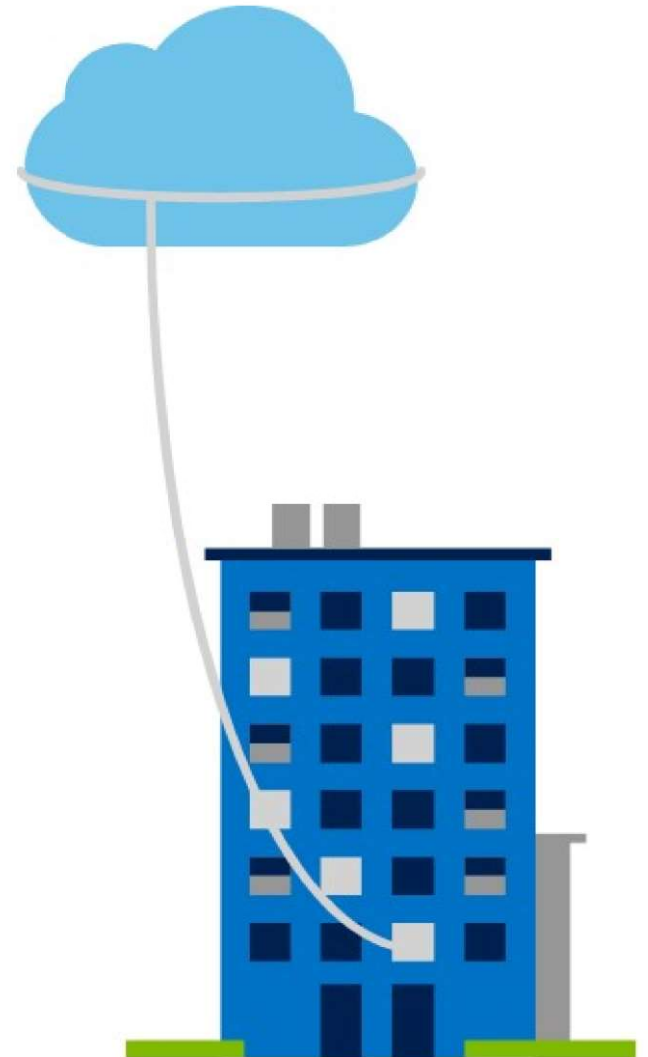


- Owned by cloud services provider.
- Provides resources to multiple organizations and users
- Accessed via secure network connection
- (typically over the internet).



## Define private cloud

- Organizations create a cloud environment in their datacenter.
- Organizations are responsible for operating the services they provide.

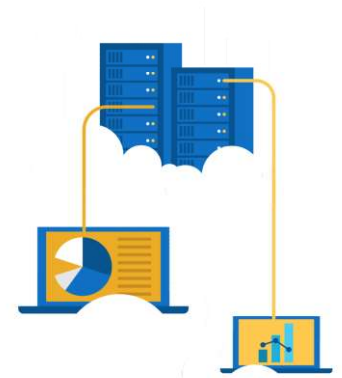


## Define hybrid cloud

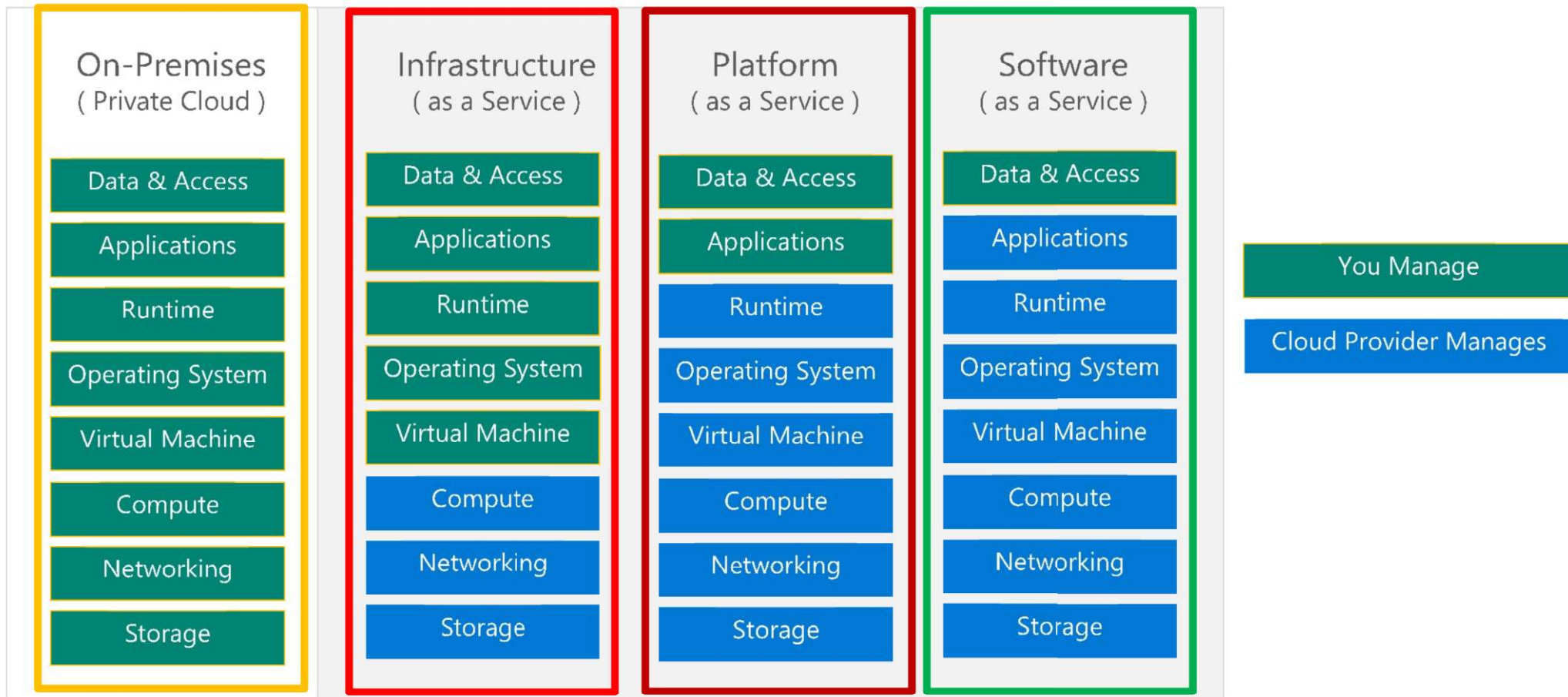


Combines *Public* and *Private* clouds to allow applications to run in the most appropriate location.

# Module: Explore types of cloud services

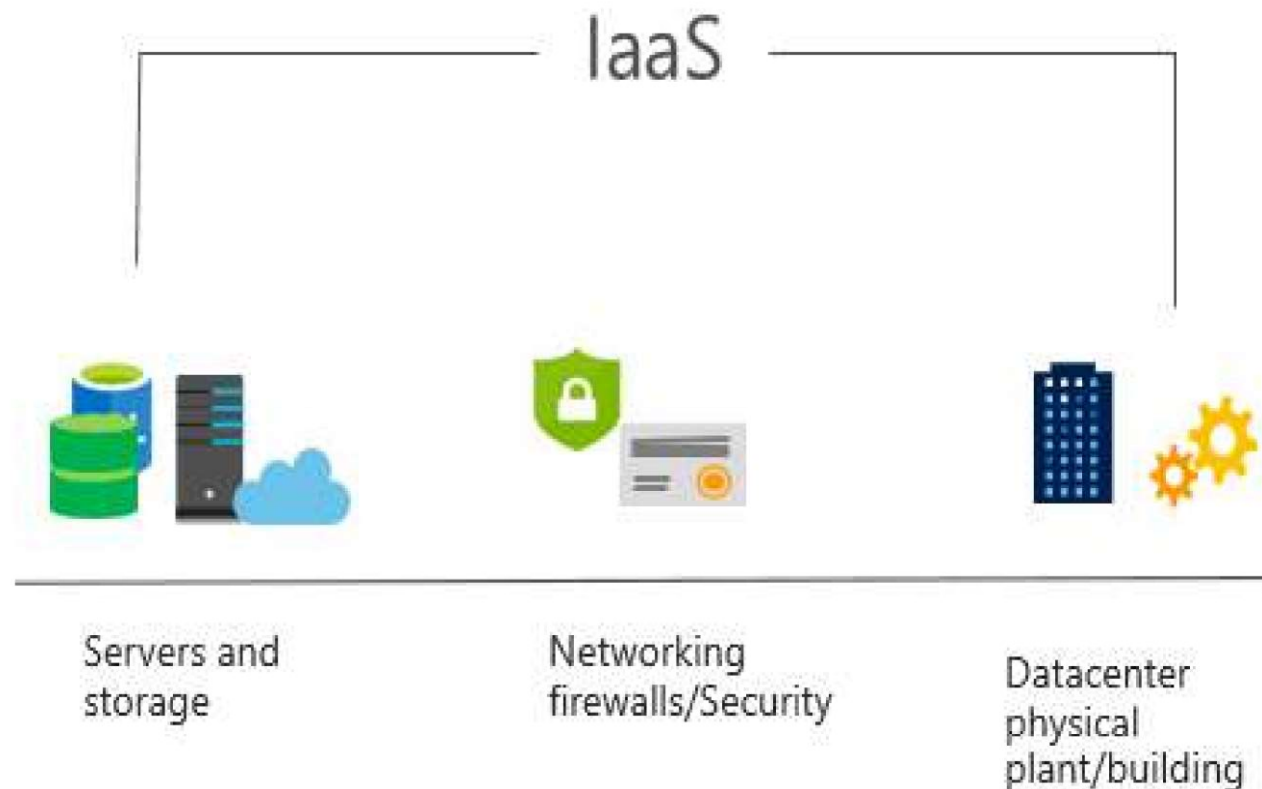


## Discuss shared responsibility model



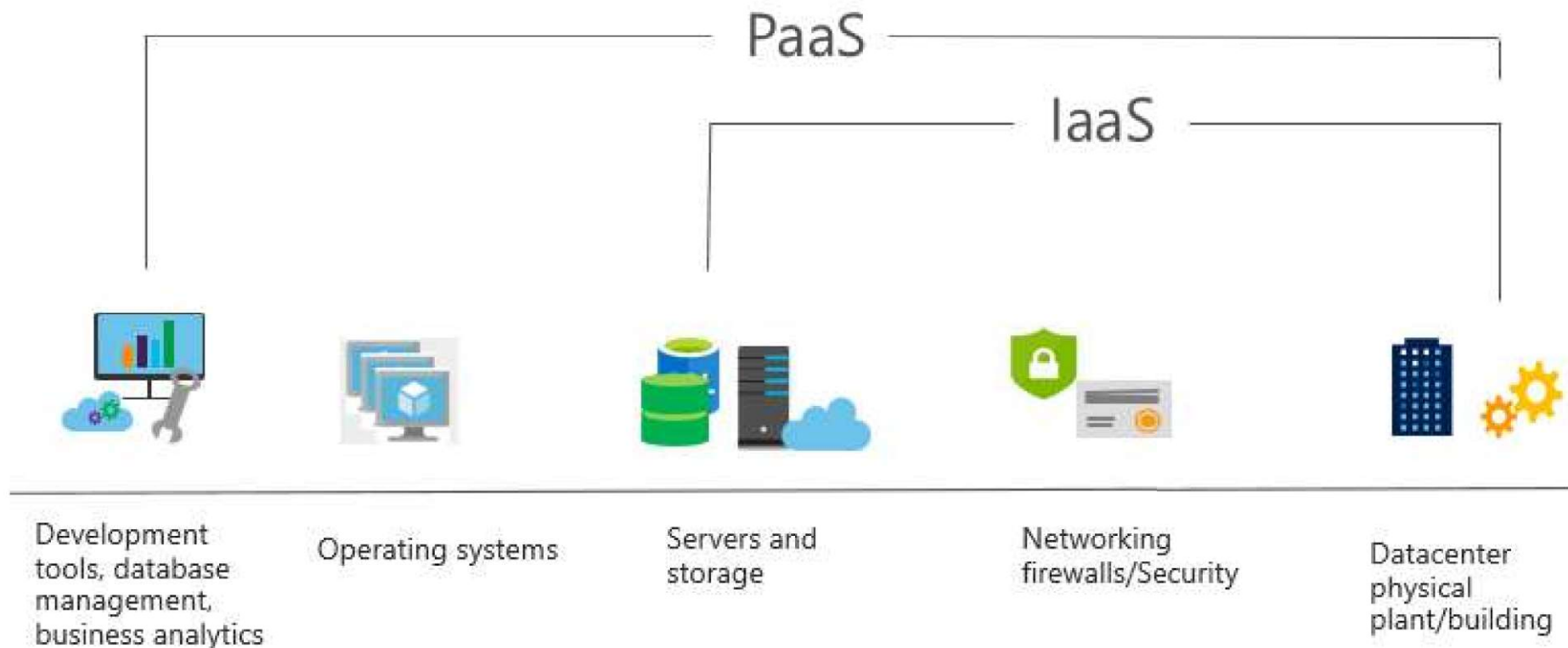
# Define Infrastructure as a Service (IaaS)

- Build pay-as-you-go IT infrastructure
- By renting servers, virtual machines, storage, networks, and operating systems from a cloud provider.

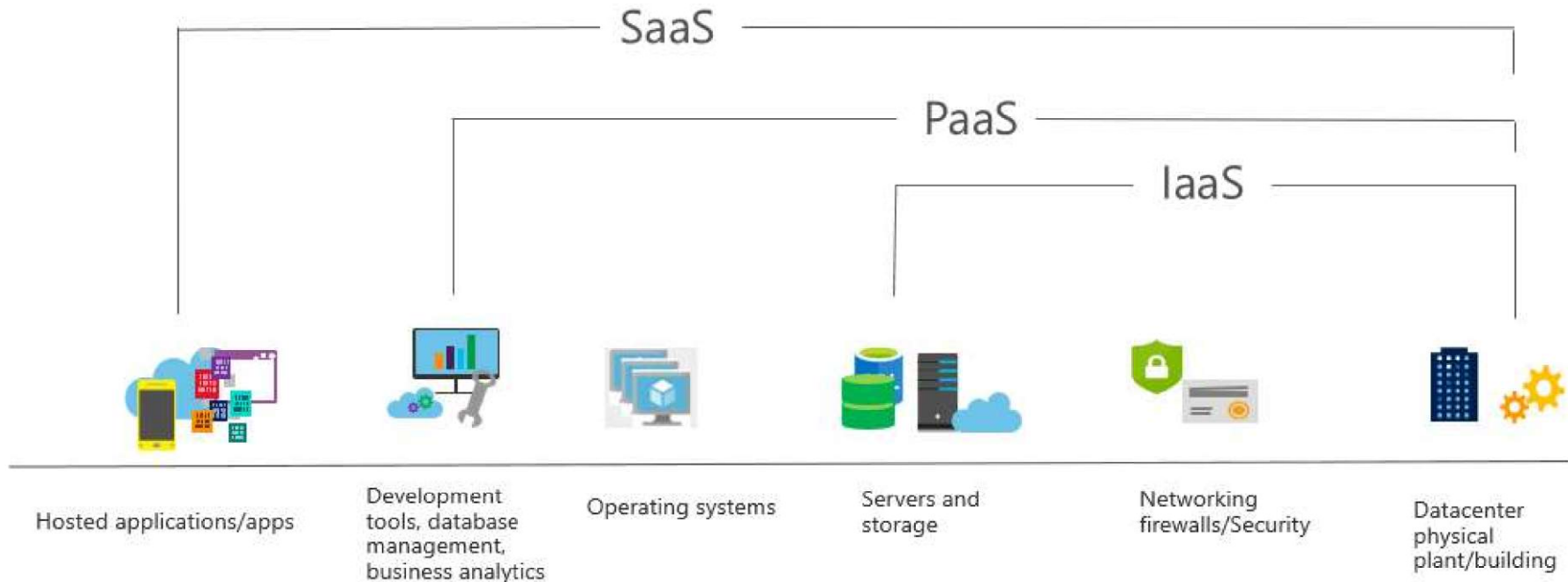


# Define Platform as a Service (PaaS)

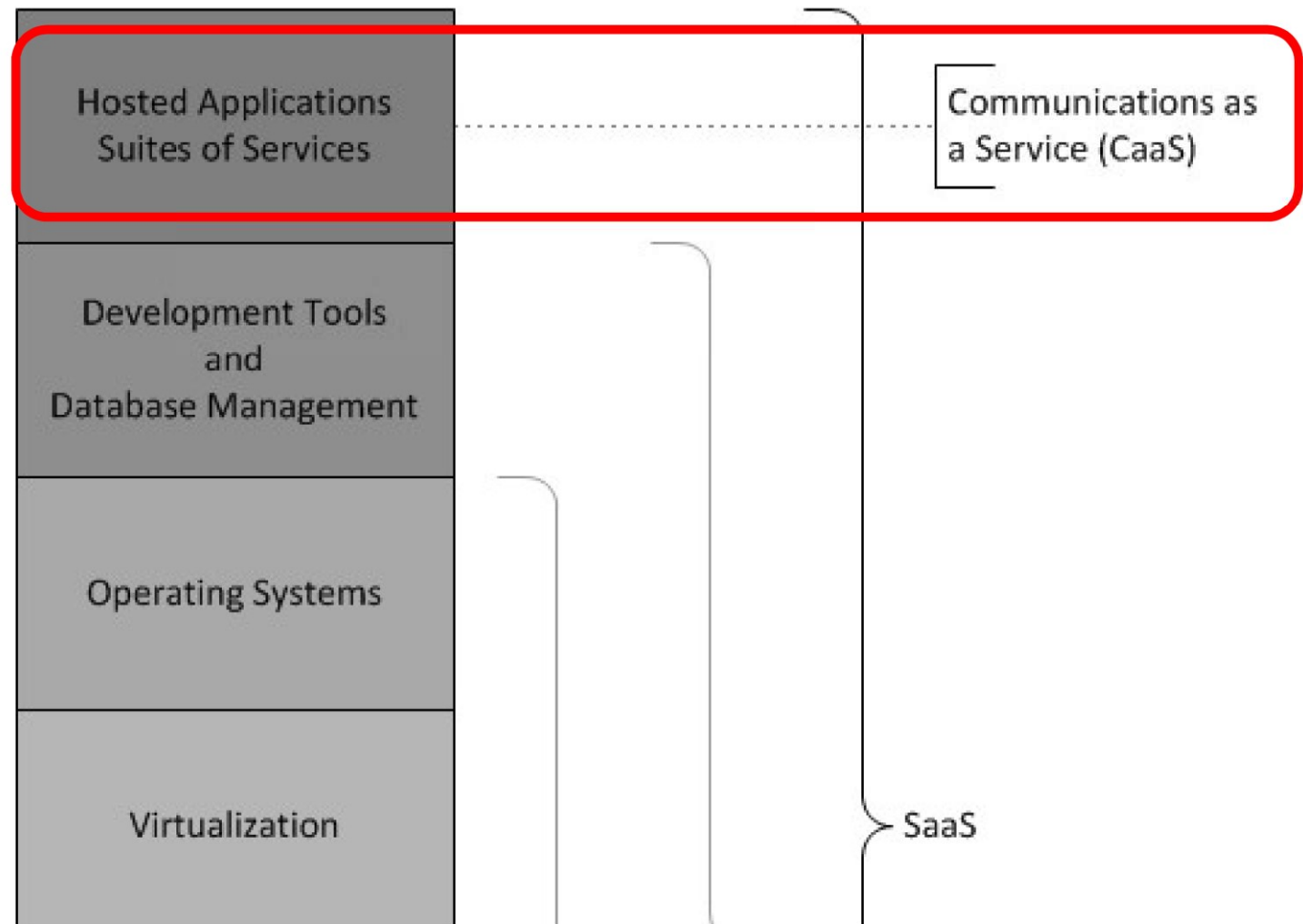
Provides environment for building, testing, and deploying software applications; without focusing on managing underlying infrastructure.



# Define Software as a Service (SaaS)

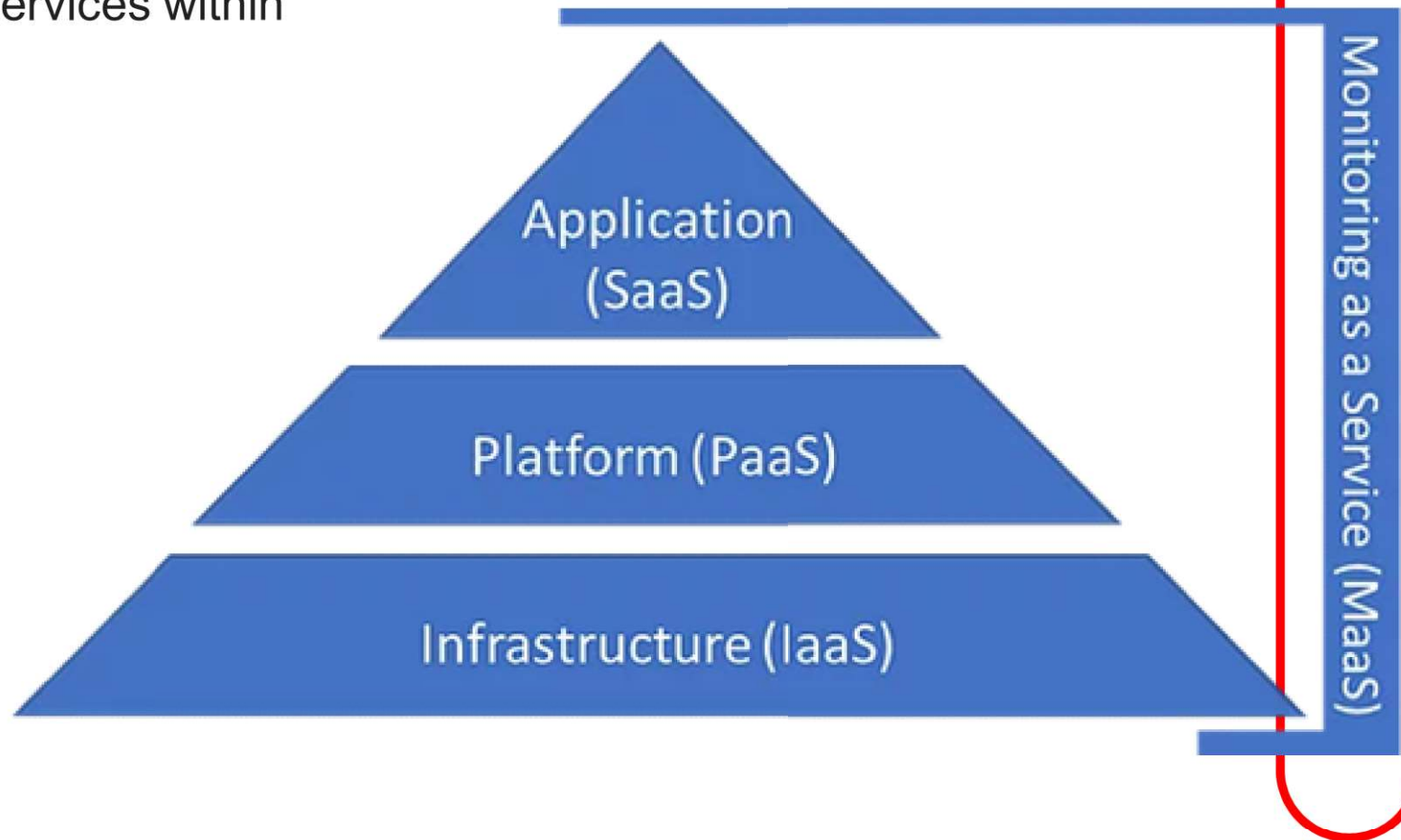


Users connect to and use cloud-based apps over the internet: for example, Microsoft Office 365, email, and calendars.





- Monitoring functionalities
- For various other services within cloud.

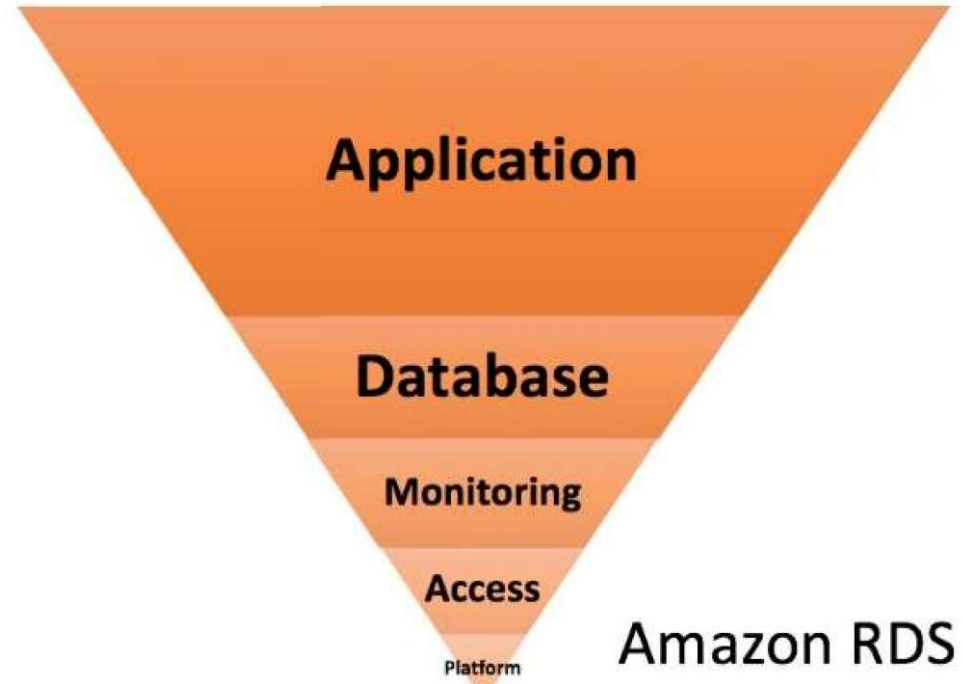
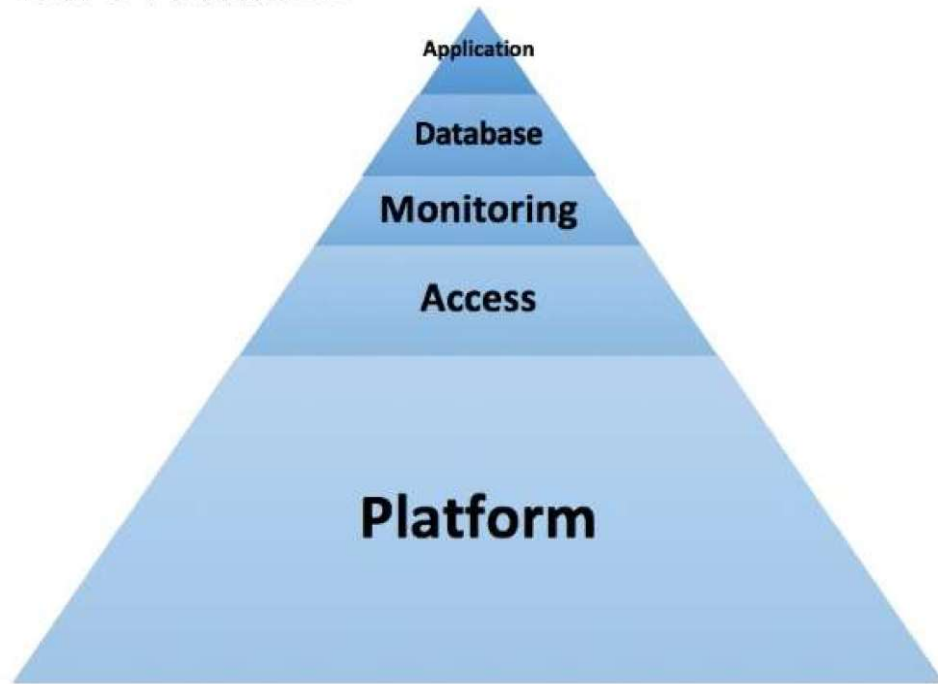


## Database-as-a-Service (DBaaS)

- Commonly known as “Managed Databases”,
- Provides users with some form of access to a database without the need for:
  - Setting up physical hardware
  - Installing software or
  - Configuring for performance
- **All of the administrative tasks are taken care of by the service provider**

DBA time spent

On Premises



Amazon RDS

**Thanks**