



AUES



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Алматы энергетика және байланыс университеті

Қосымшаларды құрудың заманауи технологиялары

# Бұлттық технологиялар. Docker.

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**INFRASTRUCTURE  
PLATFORM  
(IaaS)**

OpenStack  
vSphere  
Azure Stack VMs

AWS EC2  
GCE  
Azure VMs

**CONTAINER  
PLATFORM  
(CaaS)**

Kubernetes  
DC/OS  
Docker Datacenter

GKE  
ECS  
ACS

**APPLICATION  
PLATFORM  
(PaaS / aPaaS)**

CloudFoundry  
OpenShift  
WaveMaker RAD

Heroku  
PCF  
Jelastic

**FUNCTION  
PLATFORM  
(FaaS)**

OpenWhisk  
Fission  
Iron.io

Lambda  
GCF  
Azure Functions

**SOFTWARE  
PLATFORM  
(SaaS)**

BYO

Salesforce  
Oracle  
SAP

**HOSTED**

## IaaS

Function

Application

Runtime

Container (optional)

OS

Virtualization

Hardware

## CaaS

Function

Application

Runtime

Container (optional)

OS

Virtualization

Hardware

## PaaS

Function

Application

Runtime

Container (optional)

OS

Virtualization

Hardware

## FaaS

Function

Application

Runtime

Container (optional)

OS

Virtualization

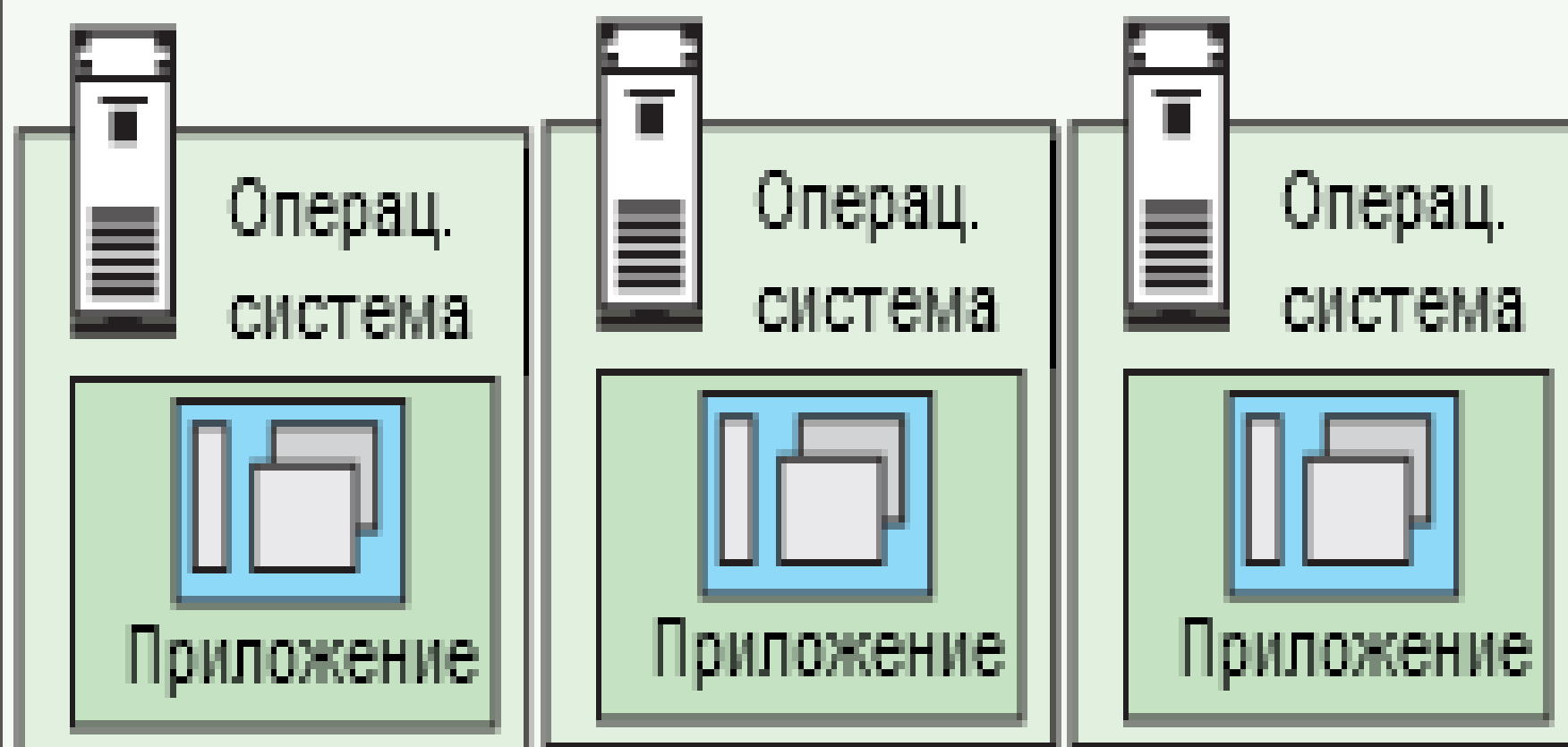
Hardware

User Management

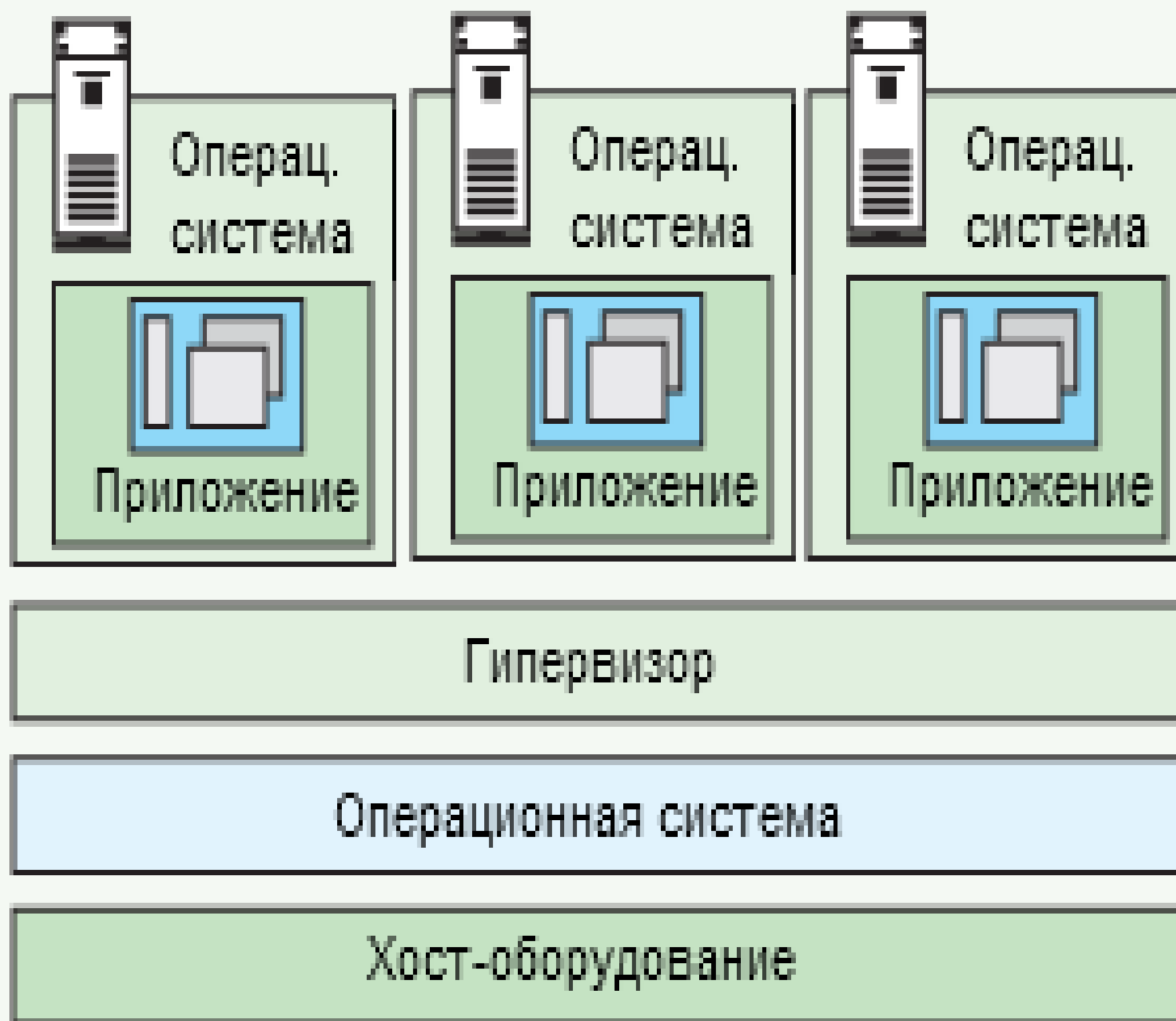
User Management  
(scalable unit)

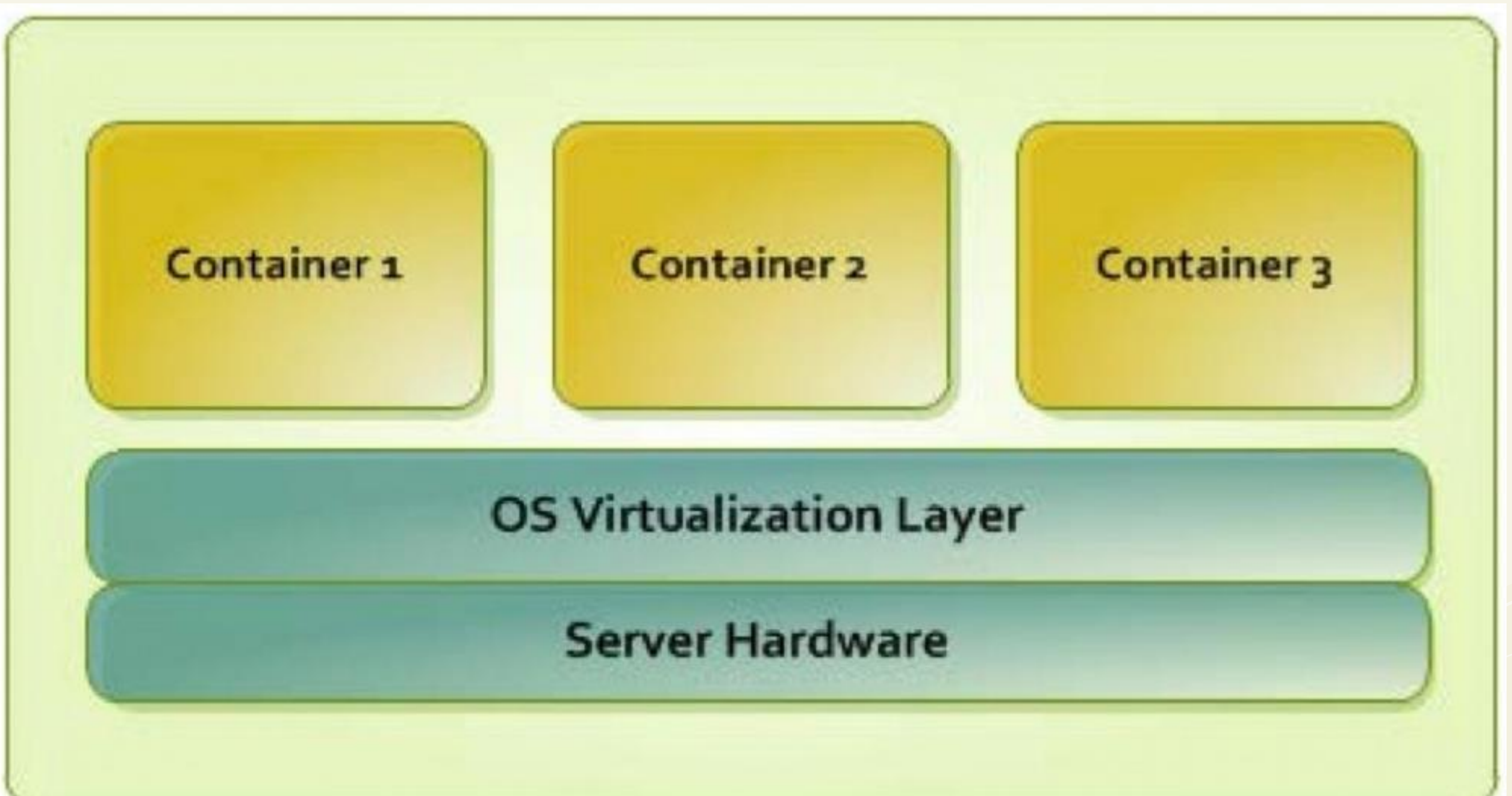
Service Provider  
Management

Гипервизор типа 1



Гипервизор типа 2





The diagram illustrates a container architecture stack. It features a light green rounded rectangle background. At the top, three yellow rounded rectangles are arranged horizontally, labeled 'Container 1', 'Container 2', and 'Container 3'. Below these is a teal rounded rectangle labeled 'OS Virtualization Layer'. At the bottom is another teal rounded rectangle labeled 'Server Hardware'. All components are centered within their respective layers.

**Container 1**

**Container 2**

**Container 3**

**OS Virtualization Layer**

**Server Hardware**



# OS Level Virtualization



- OpenVZ/Virtuozzo
- FreeBSD jails
- Linux-VServer
- Solaris Zones



OpenVZ



SWSOFT

VIRTUOZZO™

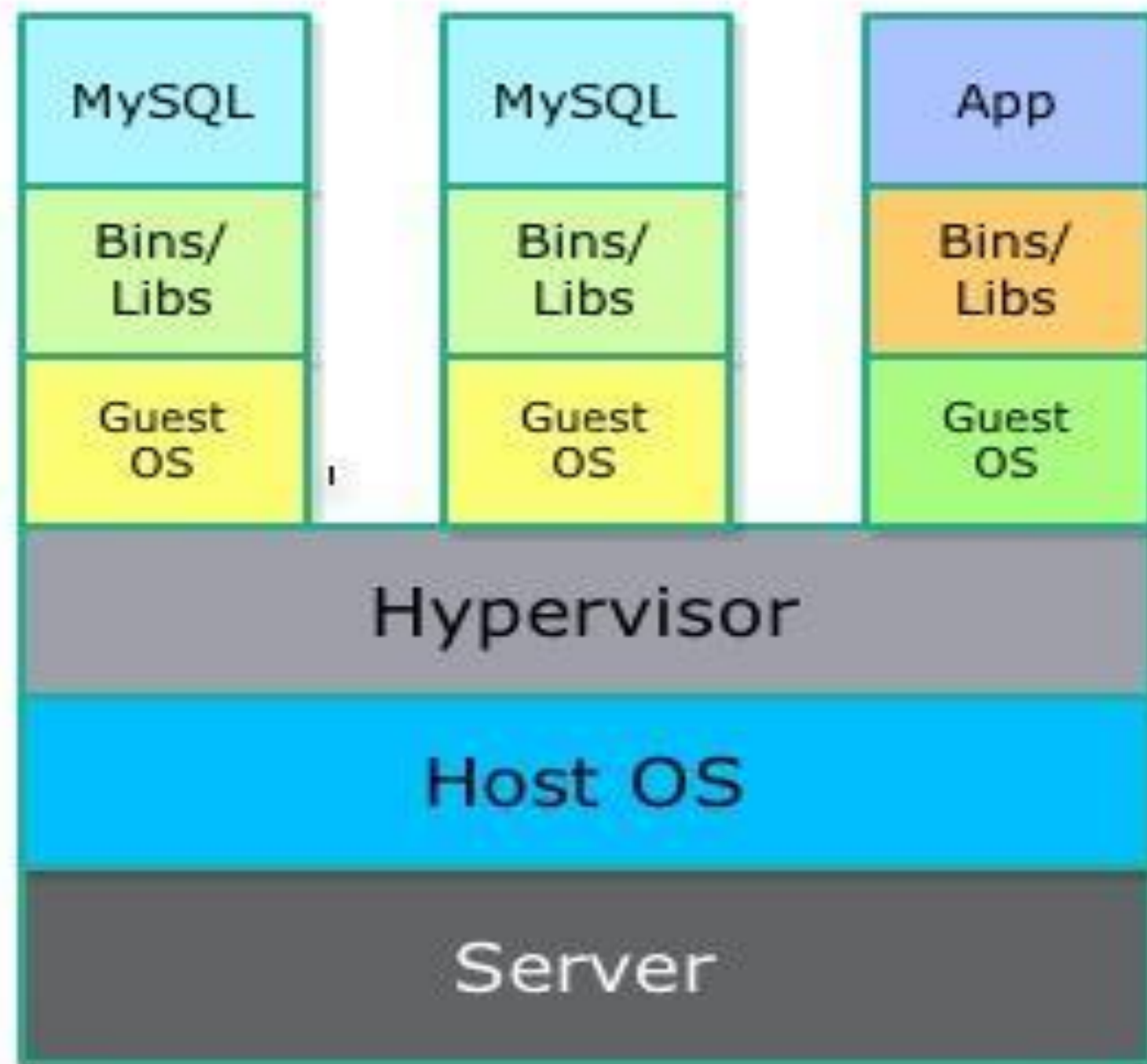


Linux  
Server

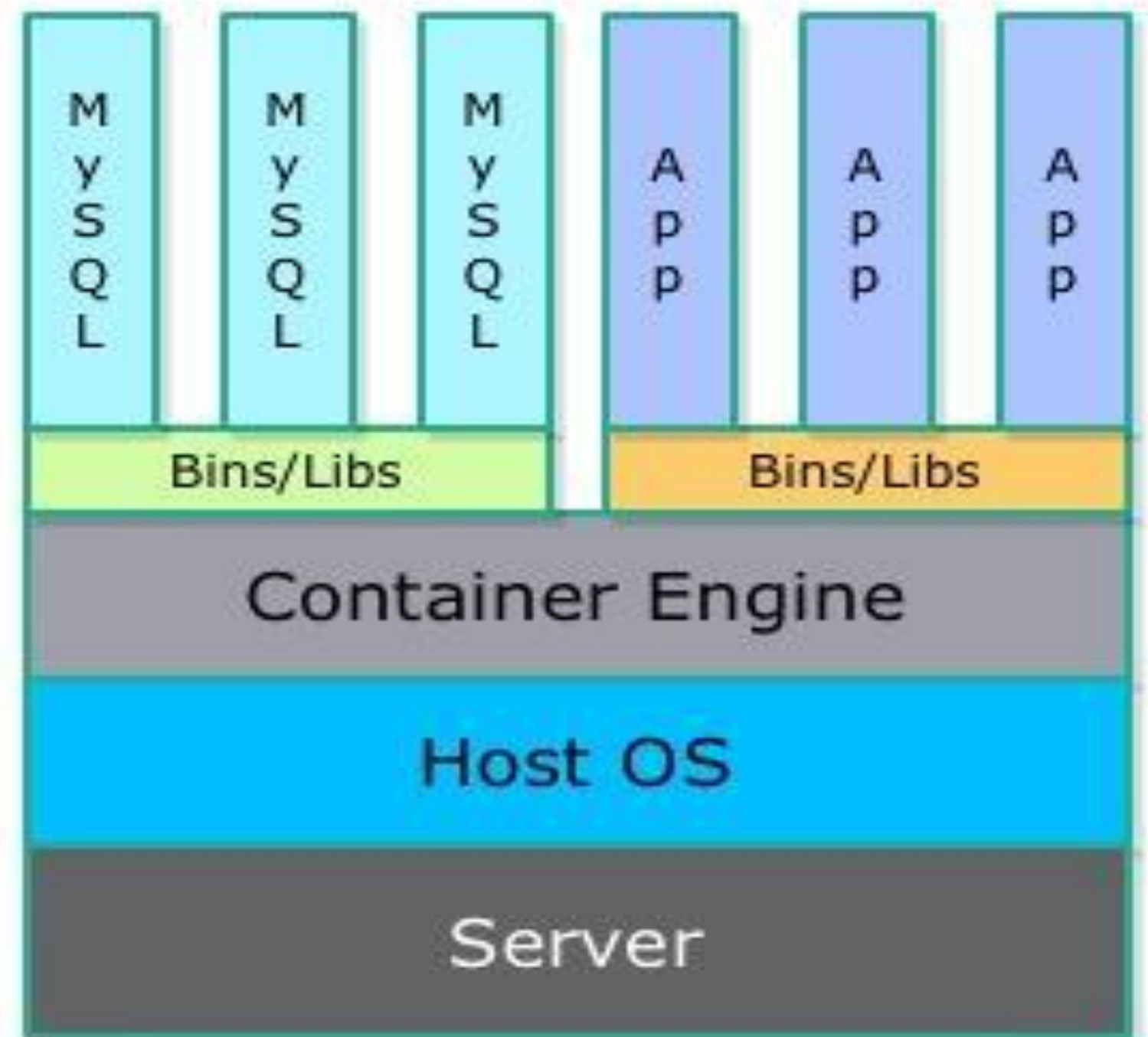


SOLARIS™

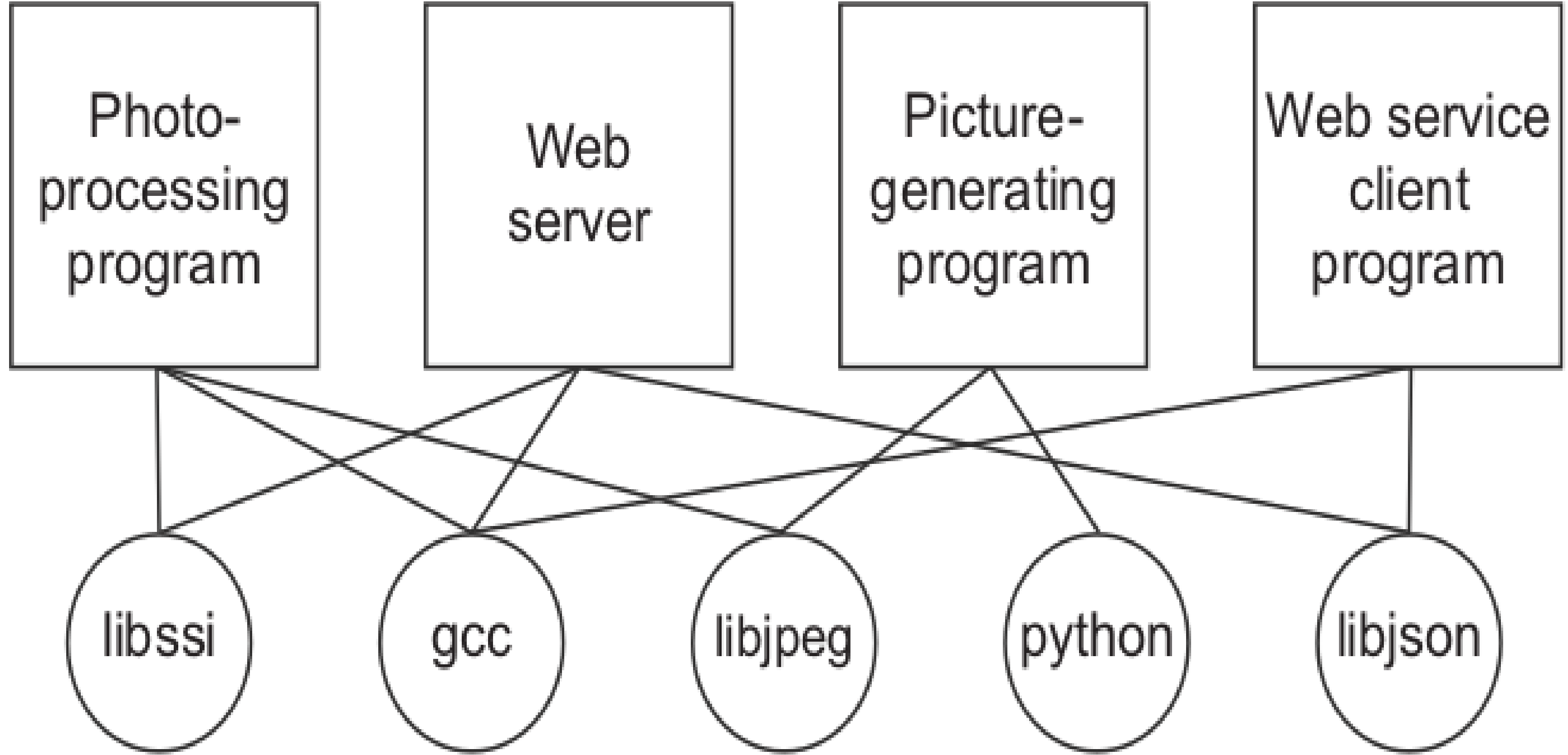
## Virtual Machines

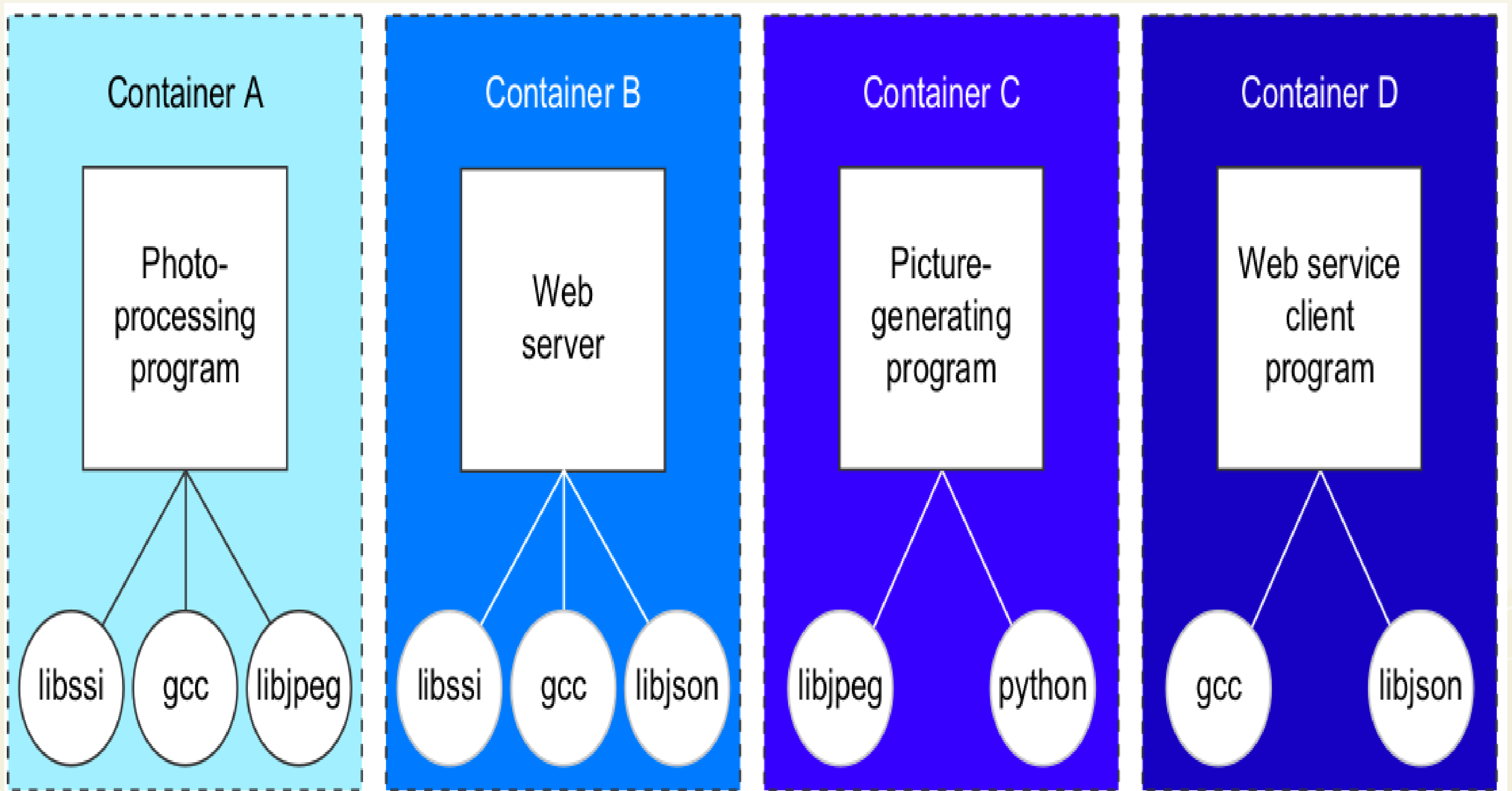


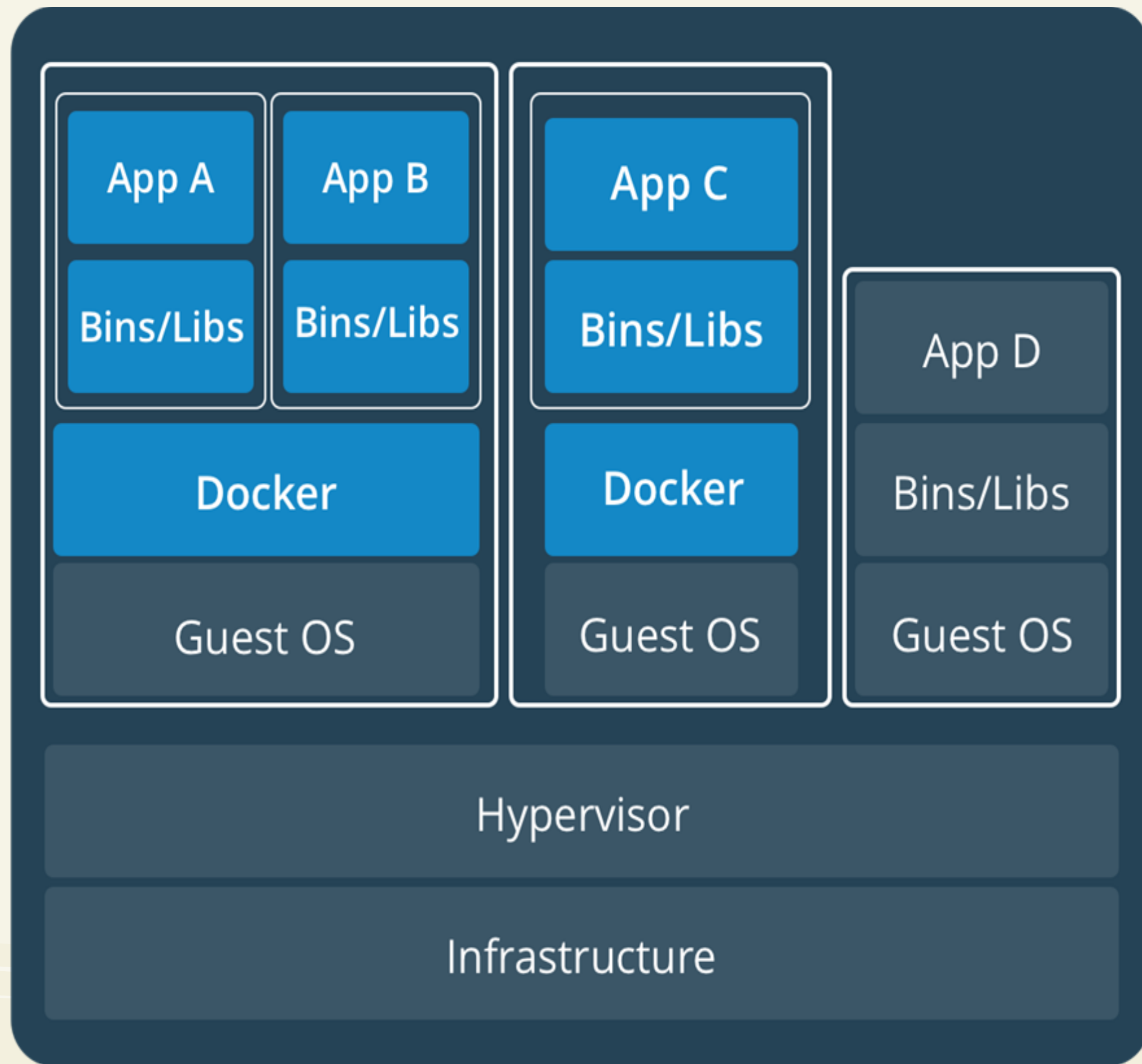
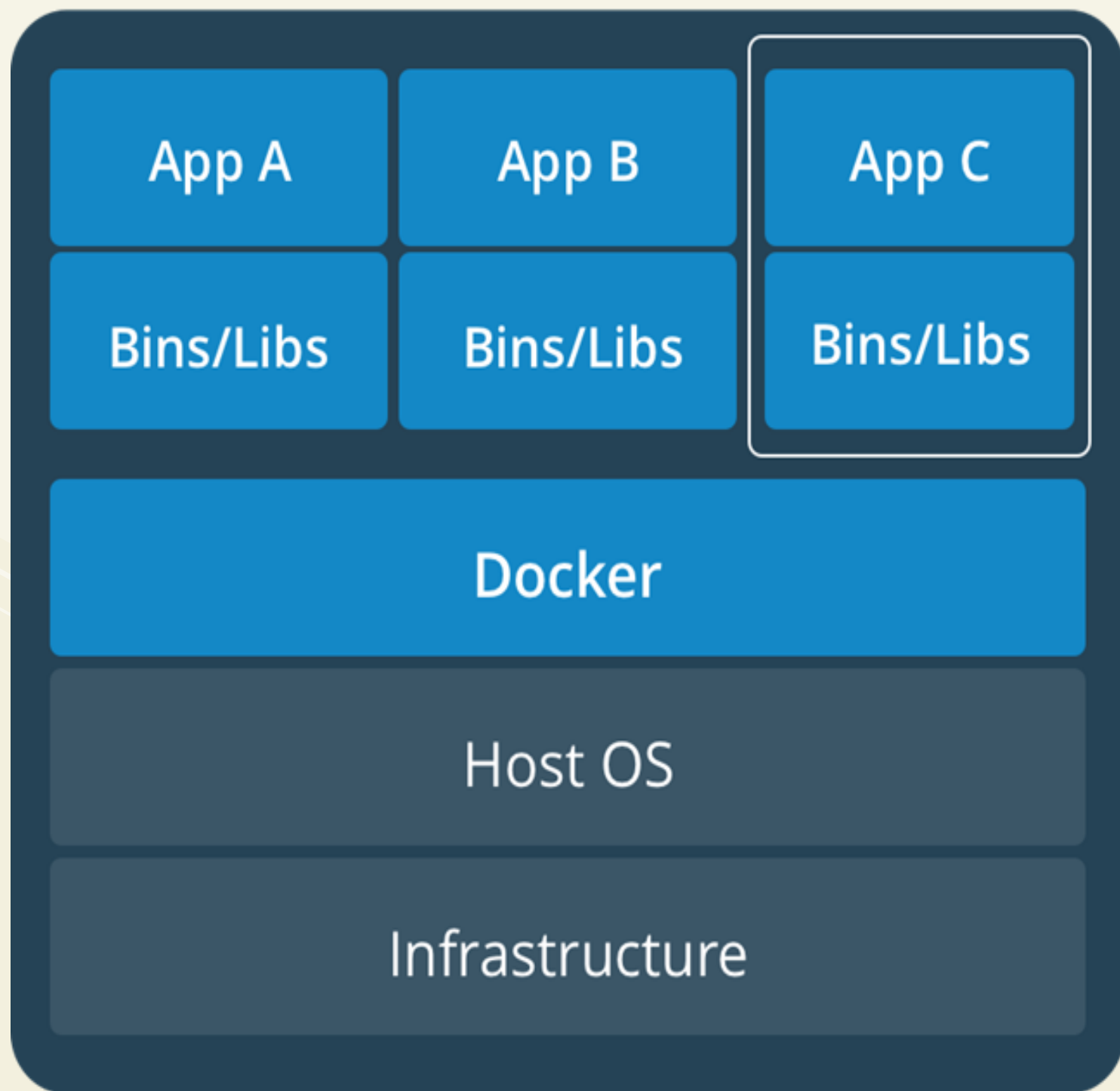
## Containers

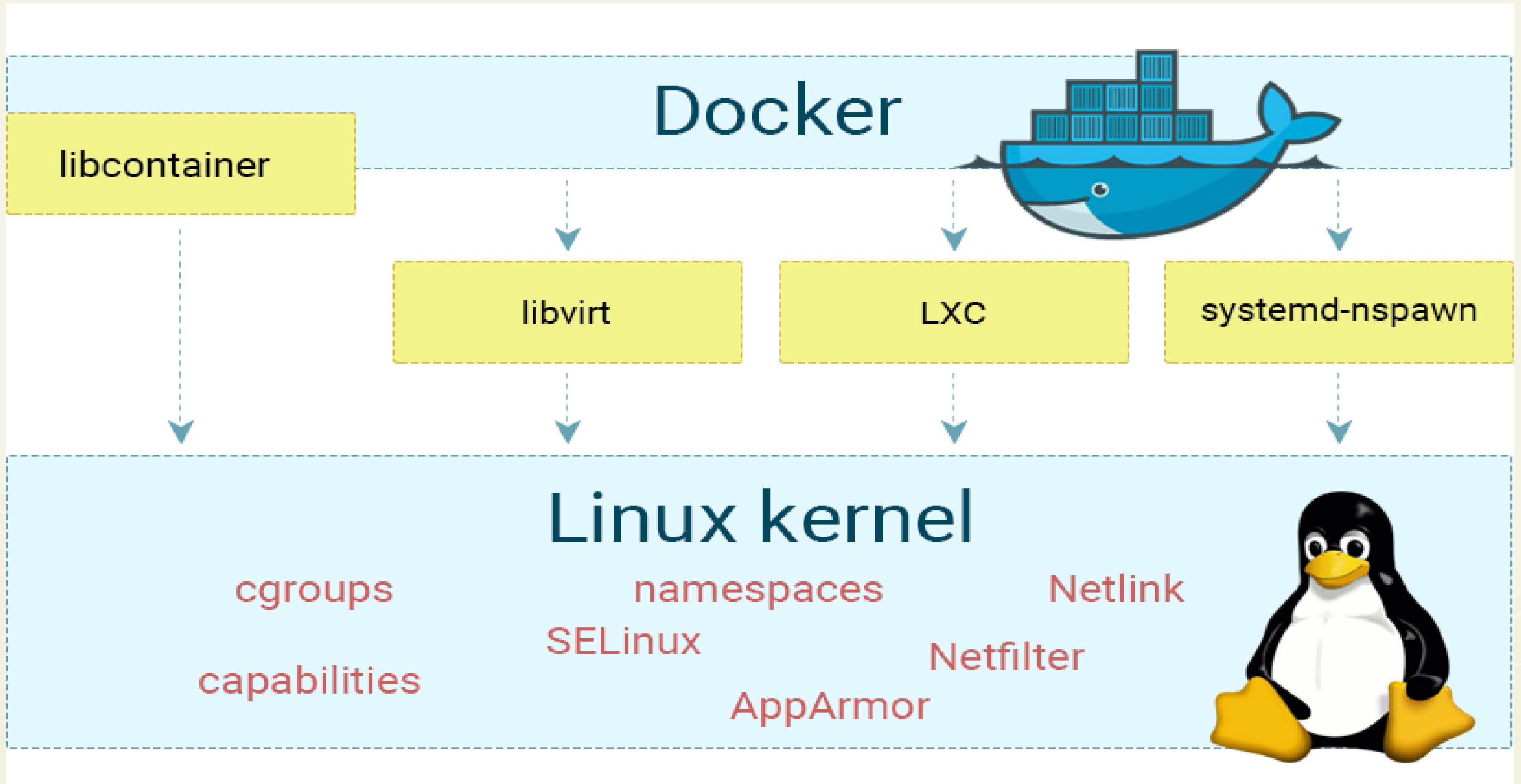


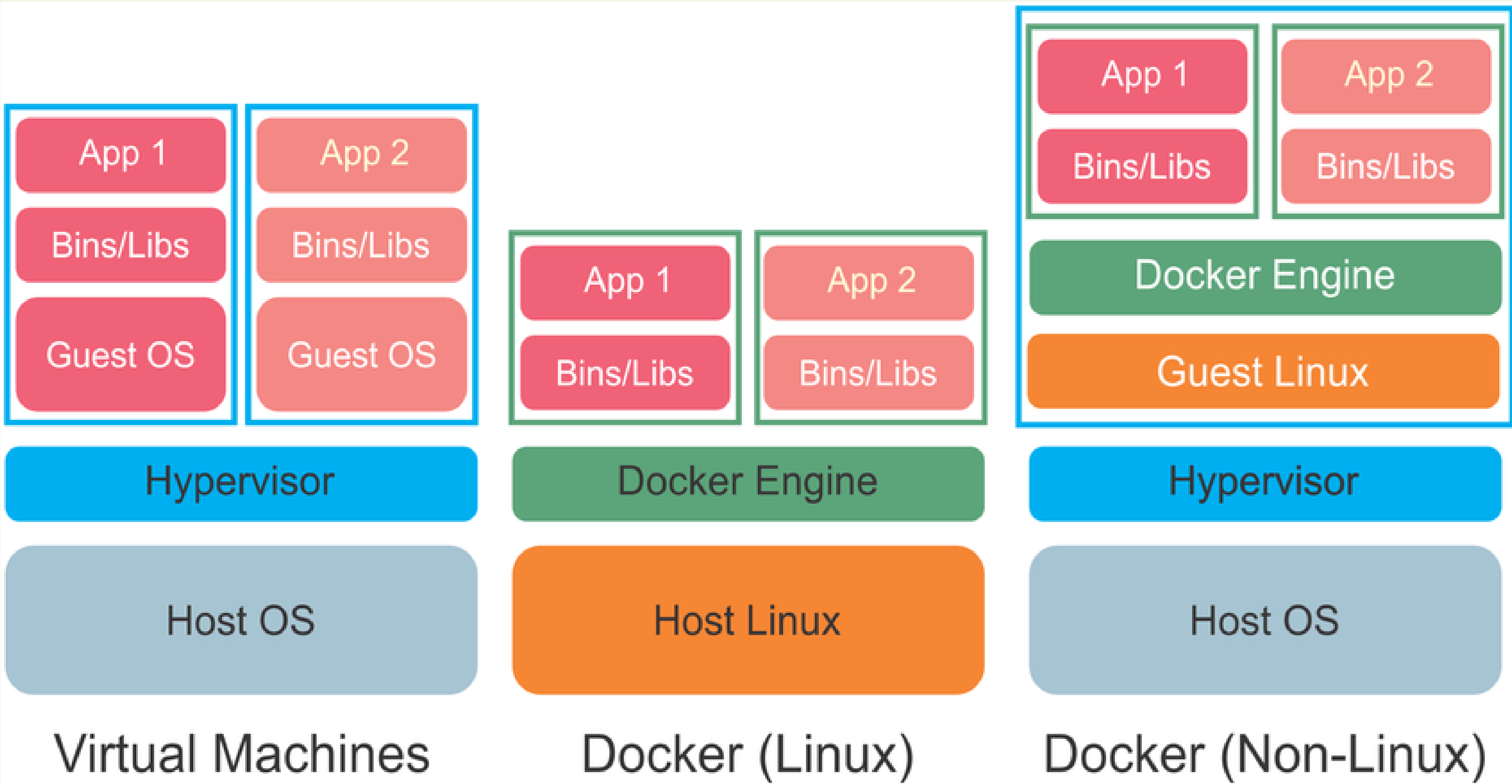




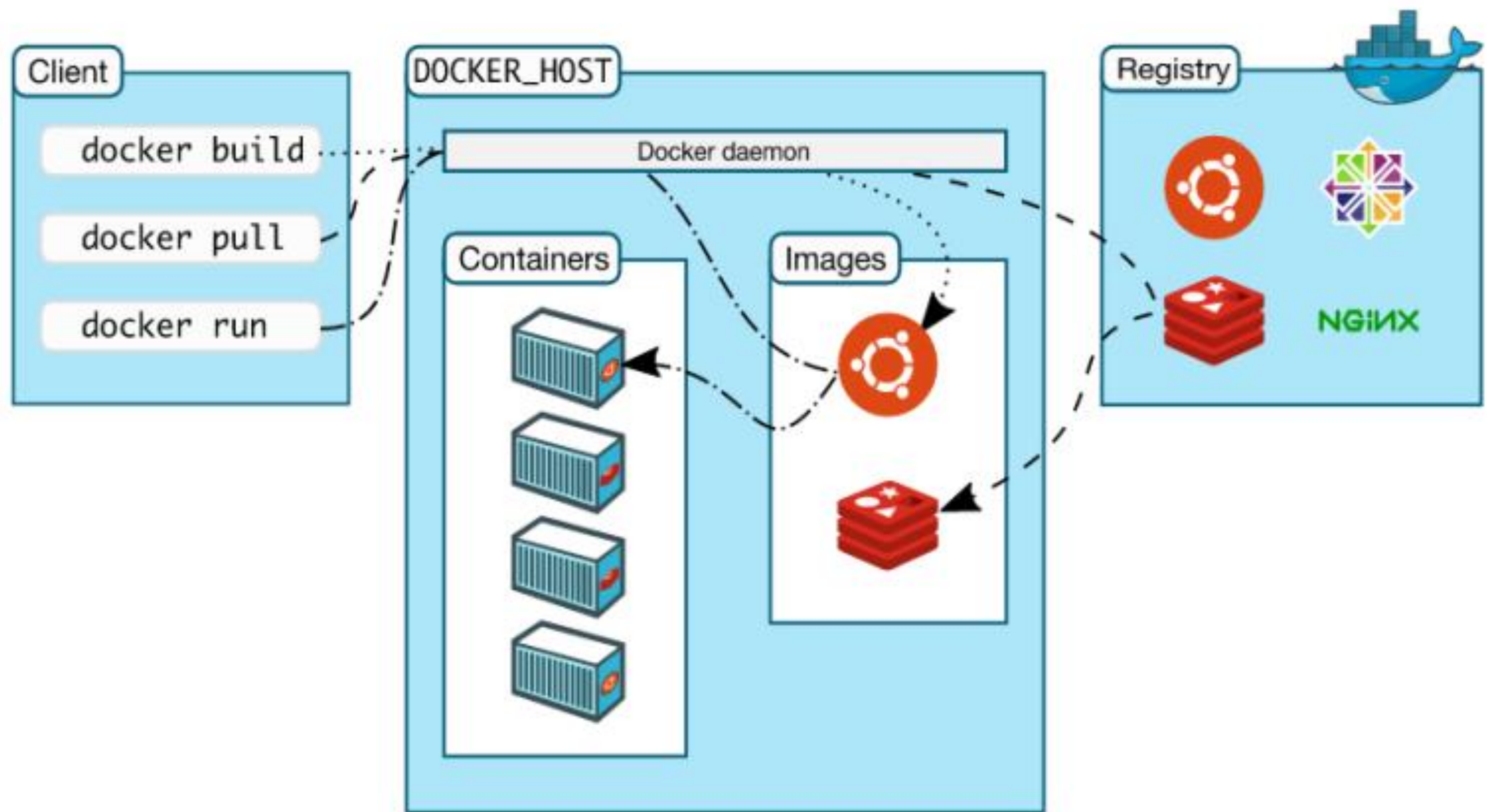












BUILD

PULL

RUN

# DOCKER ARCHITECTURE

