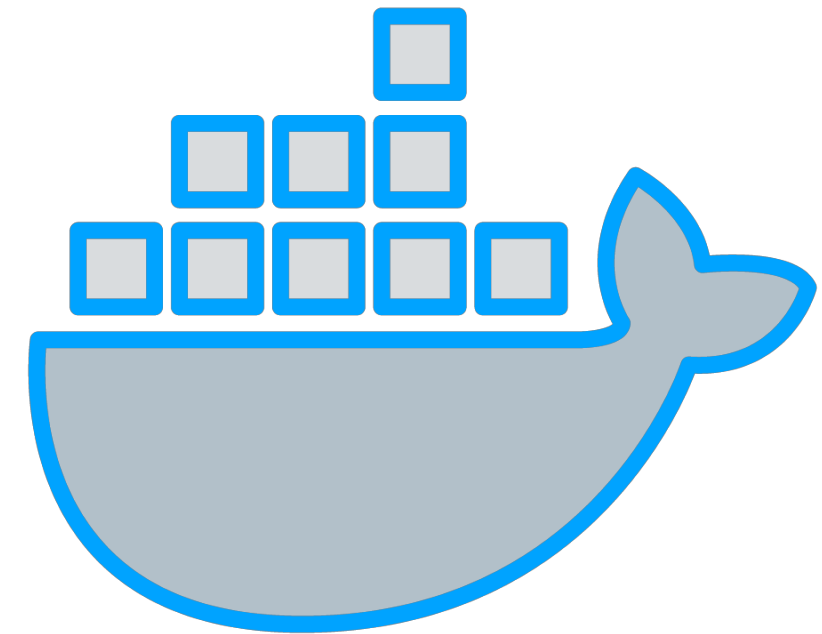


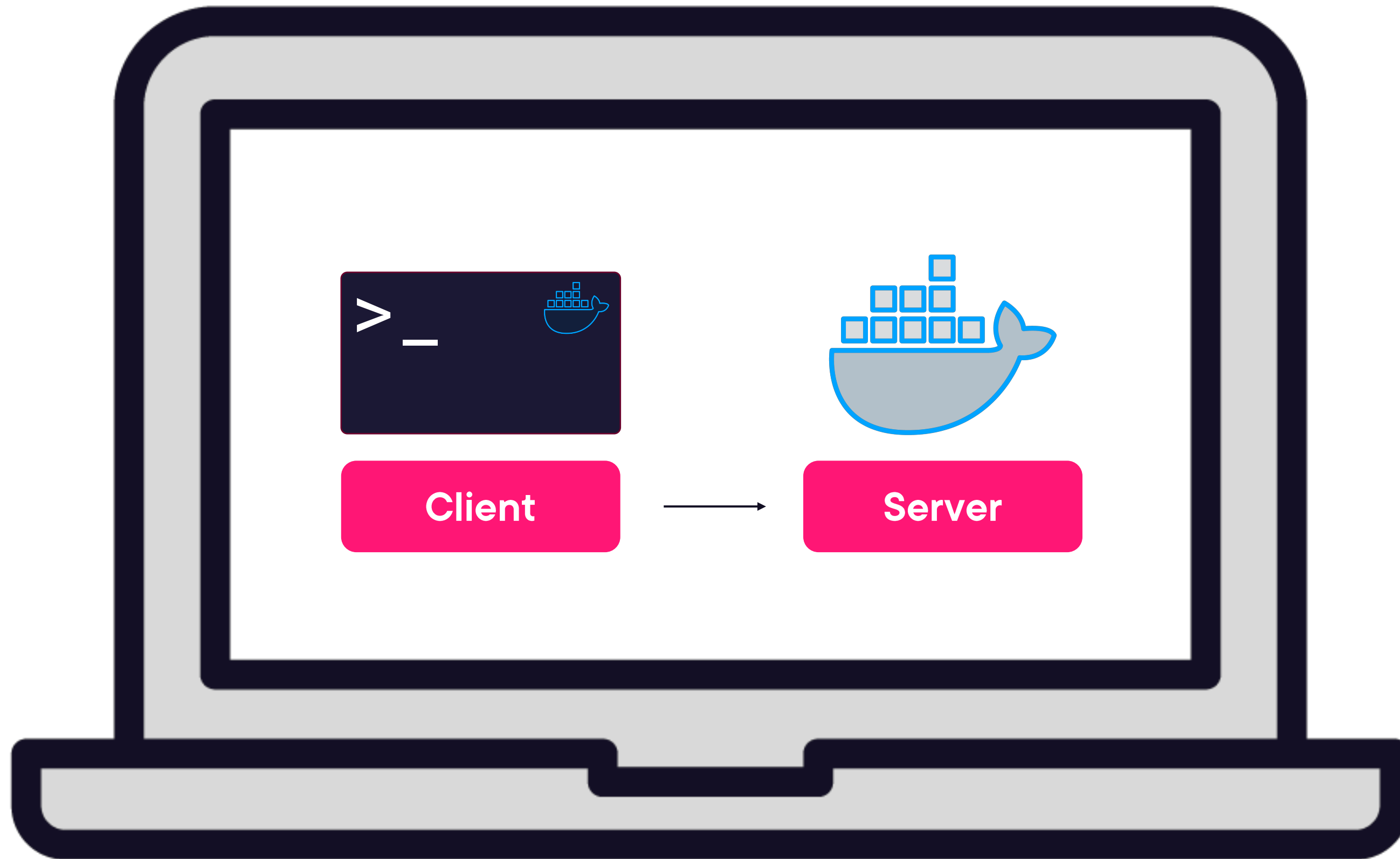


Client



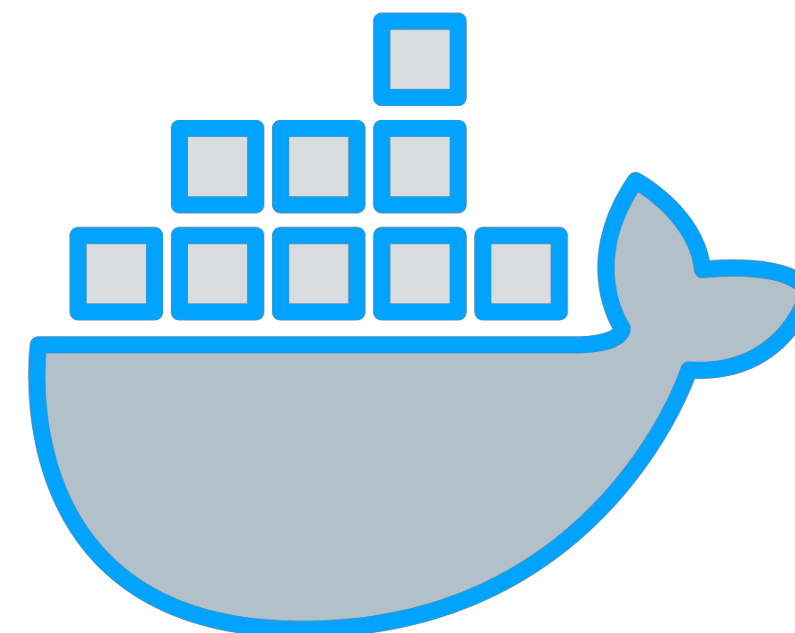
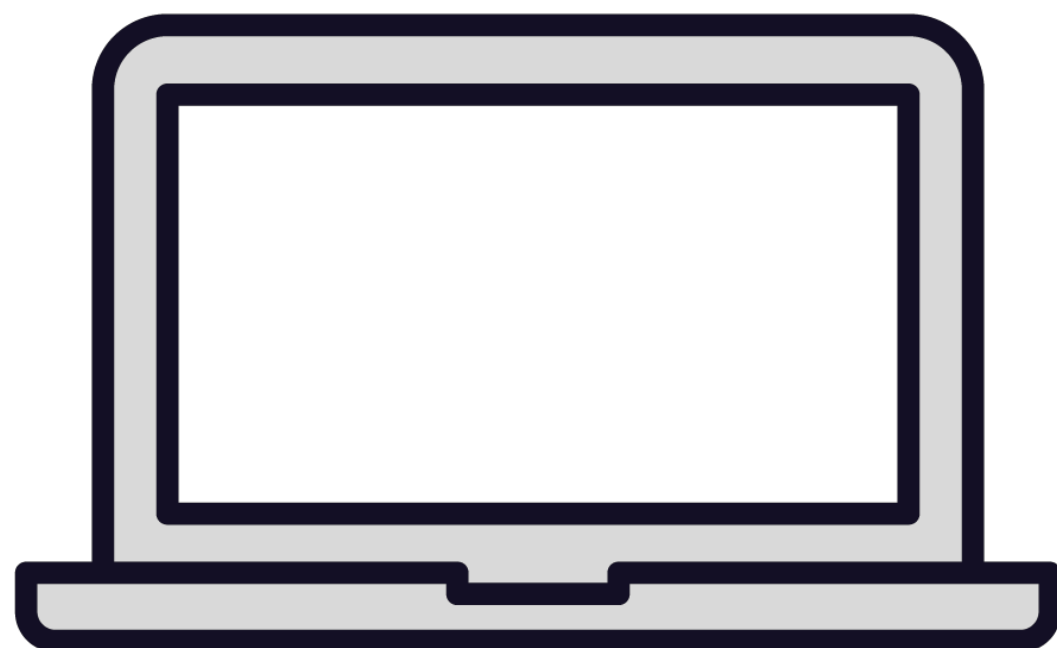
Server







Client



Server



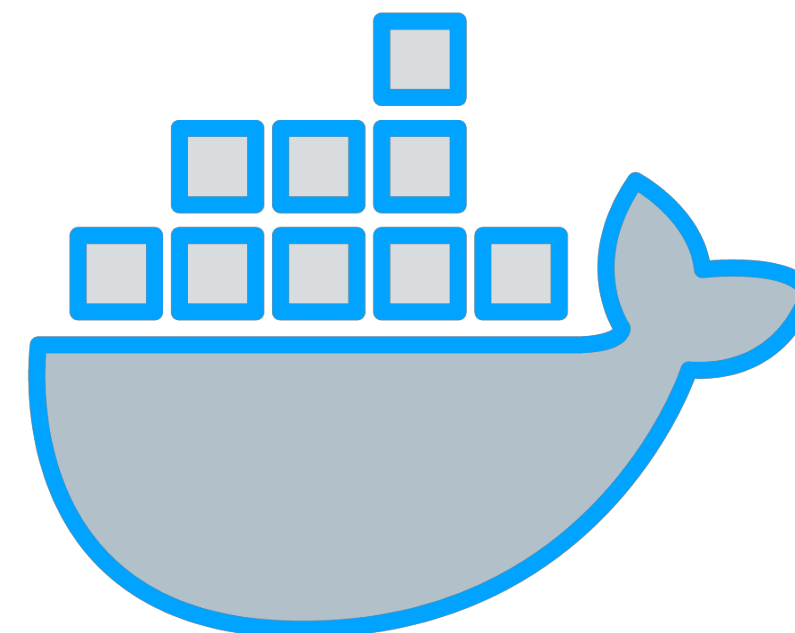


Client

POST

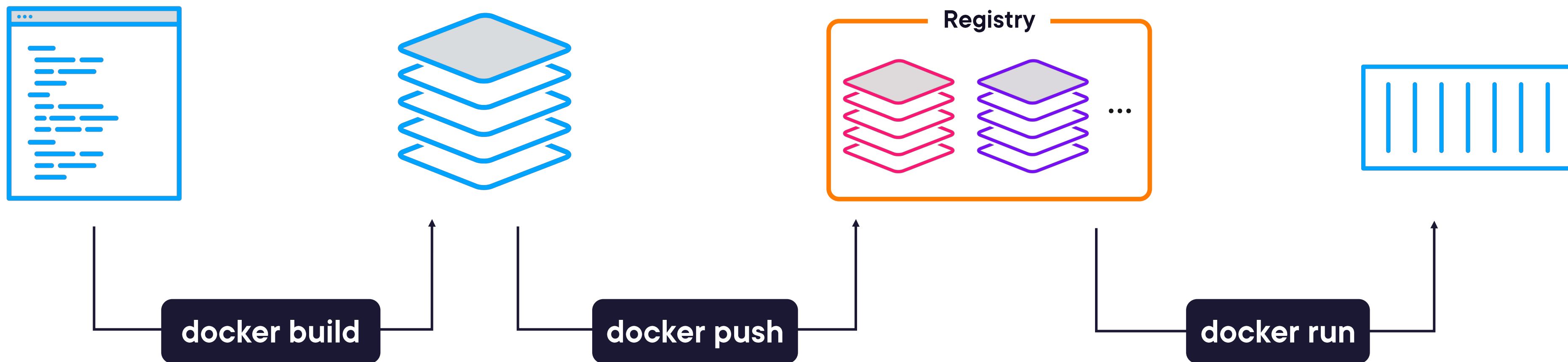


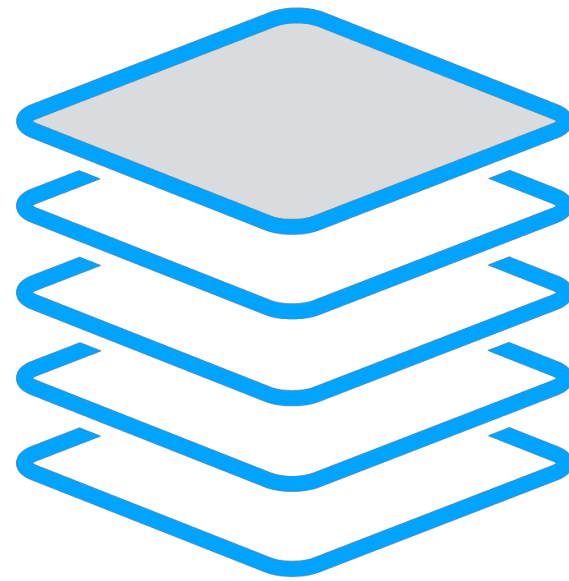
{API}



Server

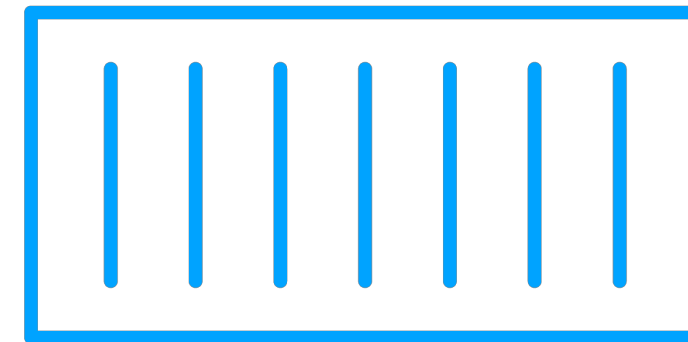






docker build

OCI image



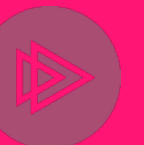
docker run

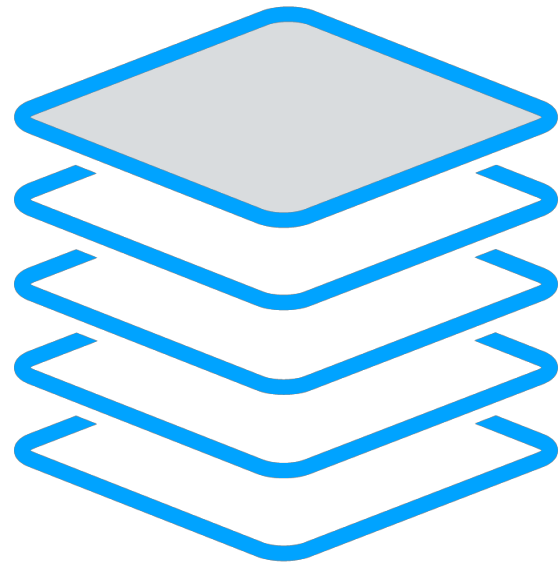
OCI container



Open Container Initiative (OCI)

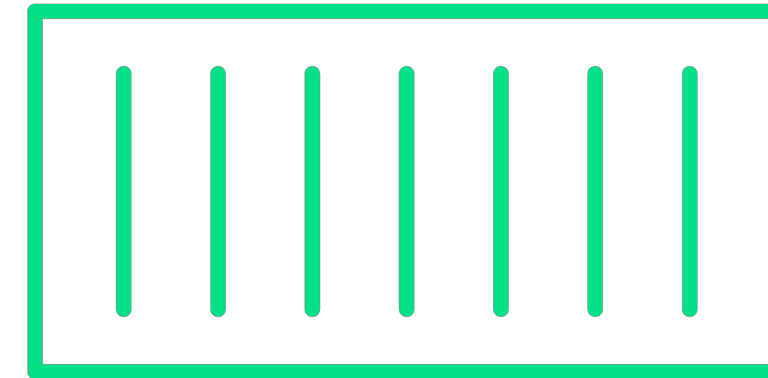
Standards body for low-level container-related standards.





All mean the same

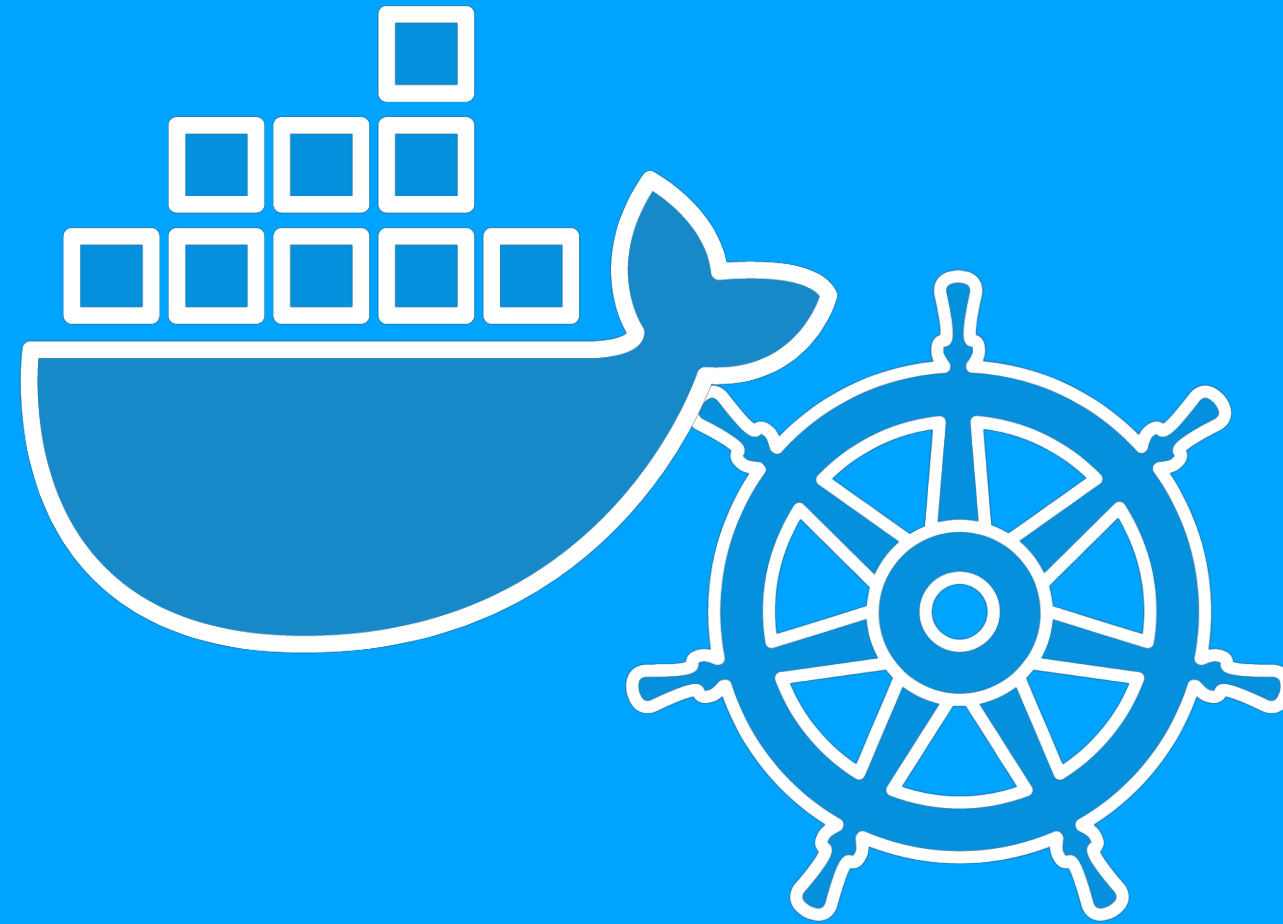
Image
Container image
Docker Image
OCI image



All mean the same

Container
Docker container
OCI container





Docker and Kubernetes

Both use and work with OCI images and containers...



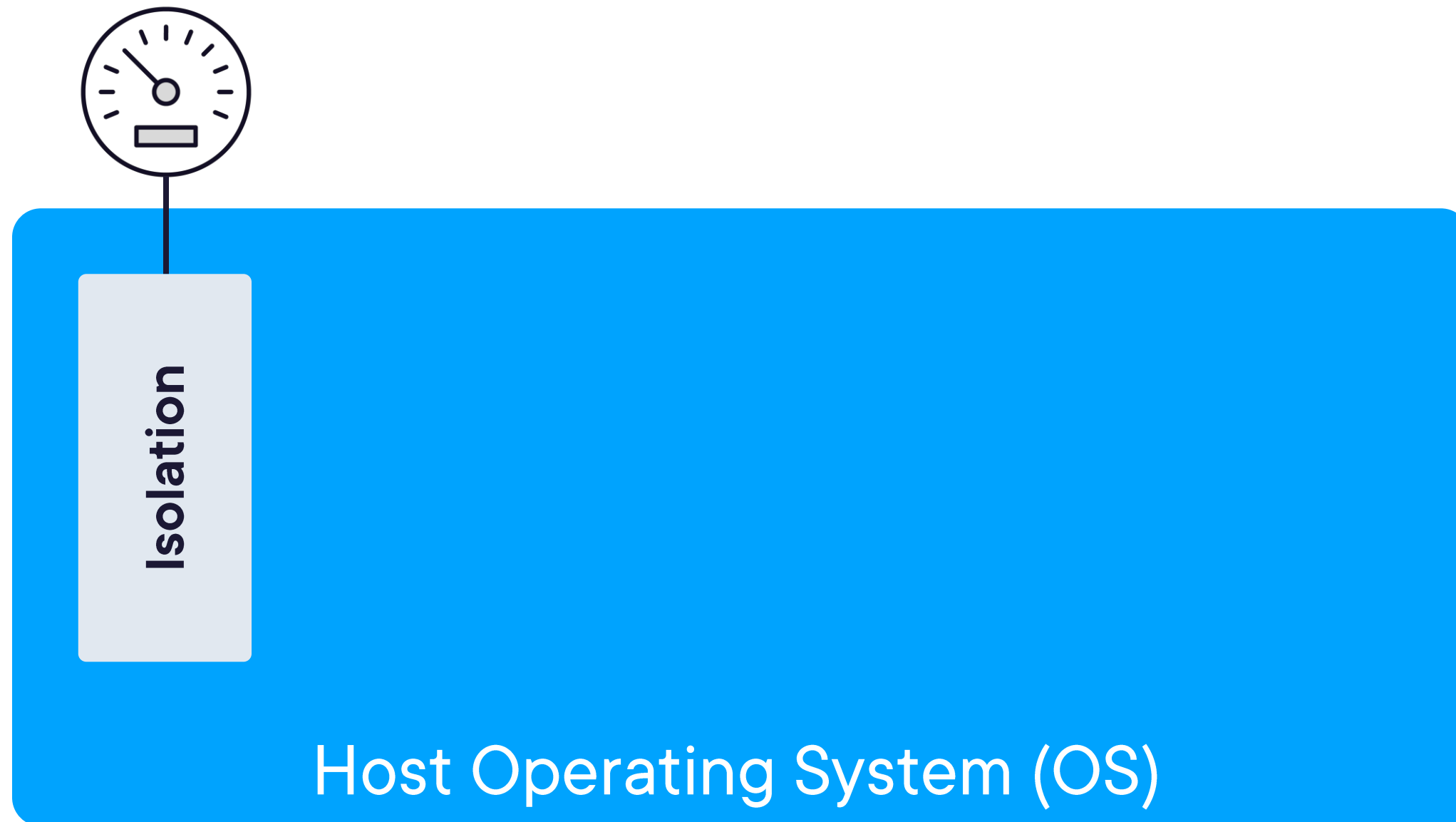
Container

Isolated area of OS with resource limits applied.



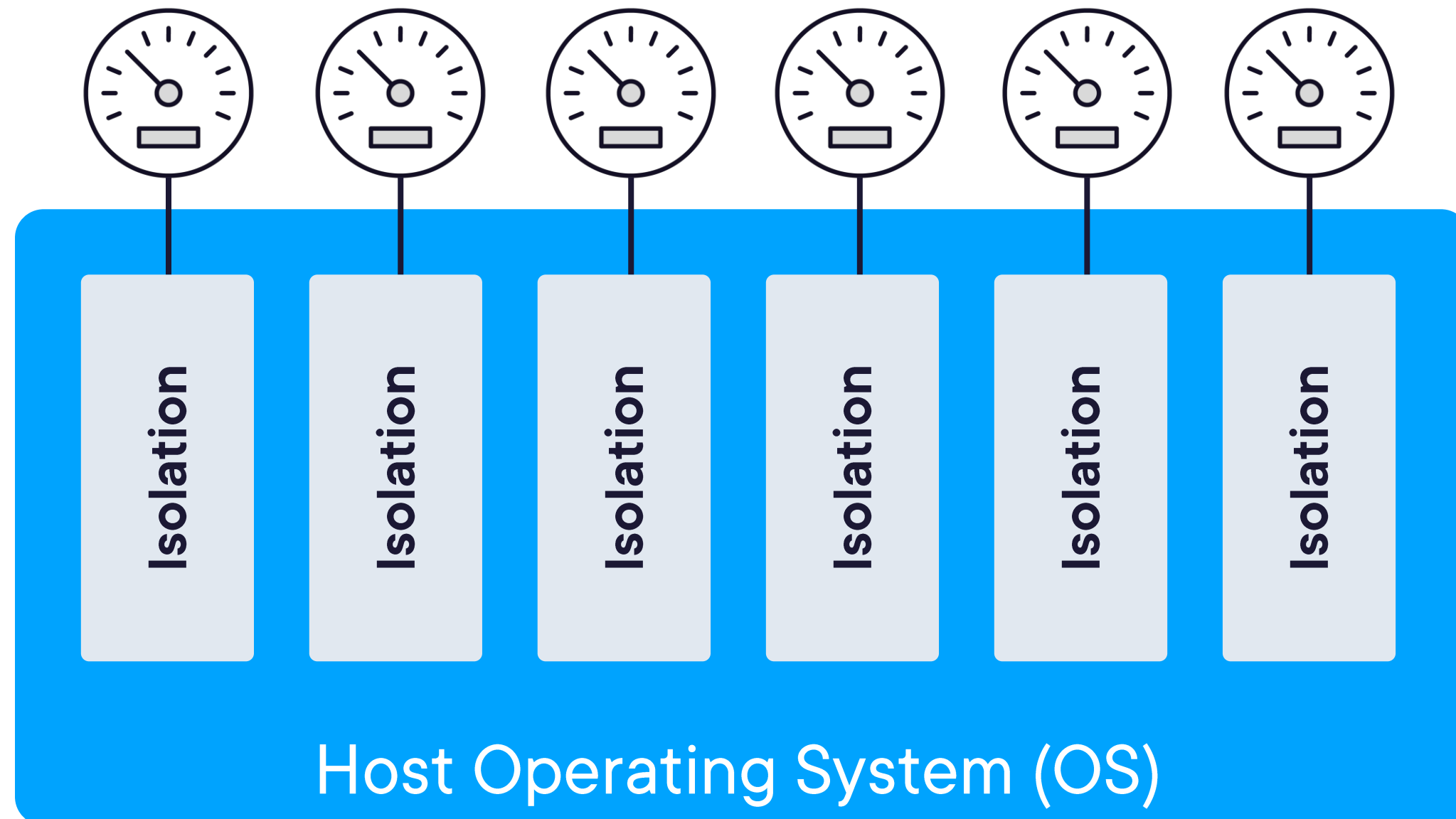
Container

Isolated area of OS with resource limits applied.



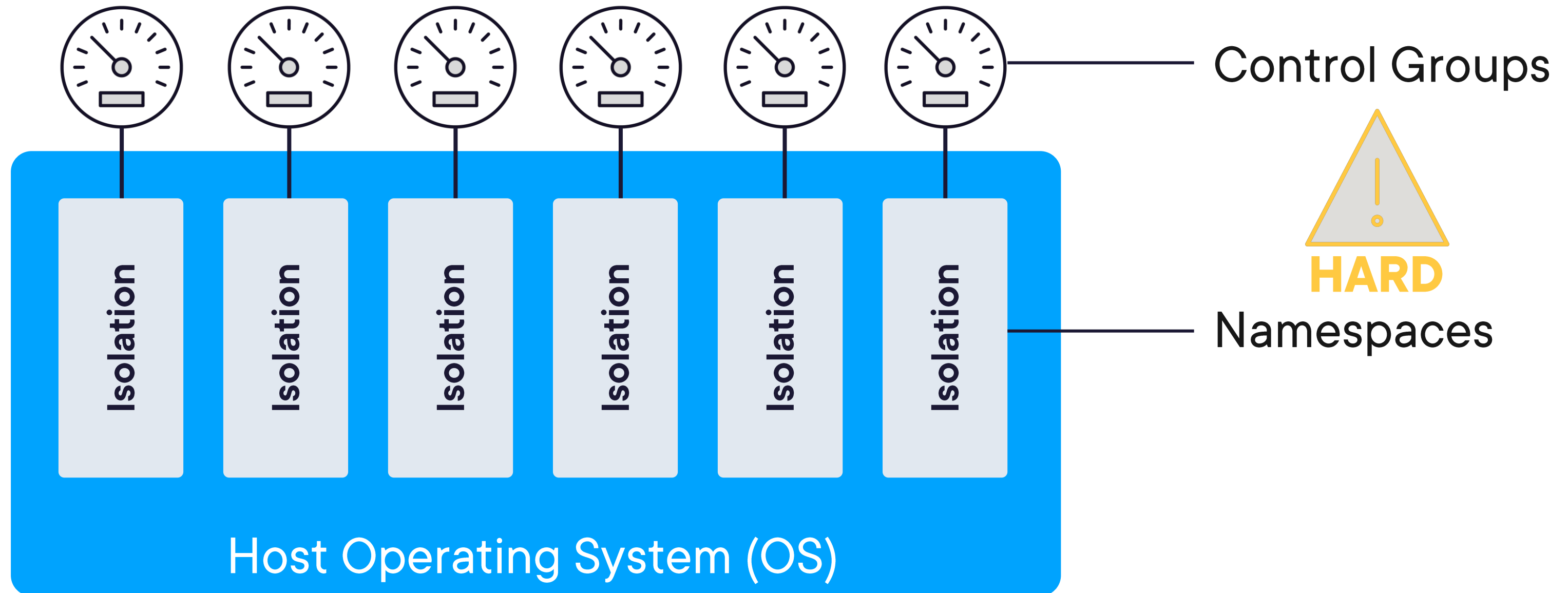
Container

Isolated area of OS with resource limits applied.



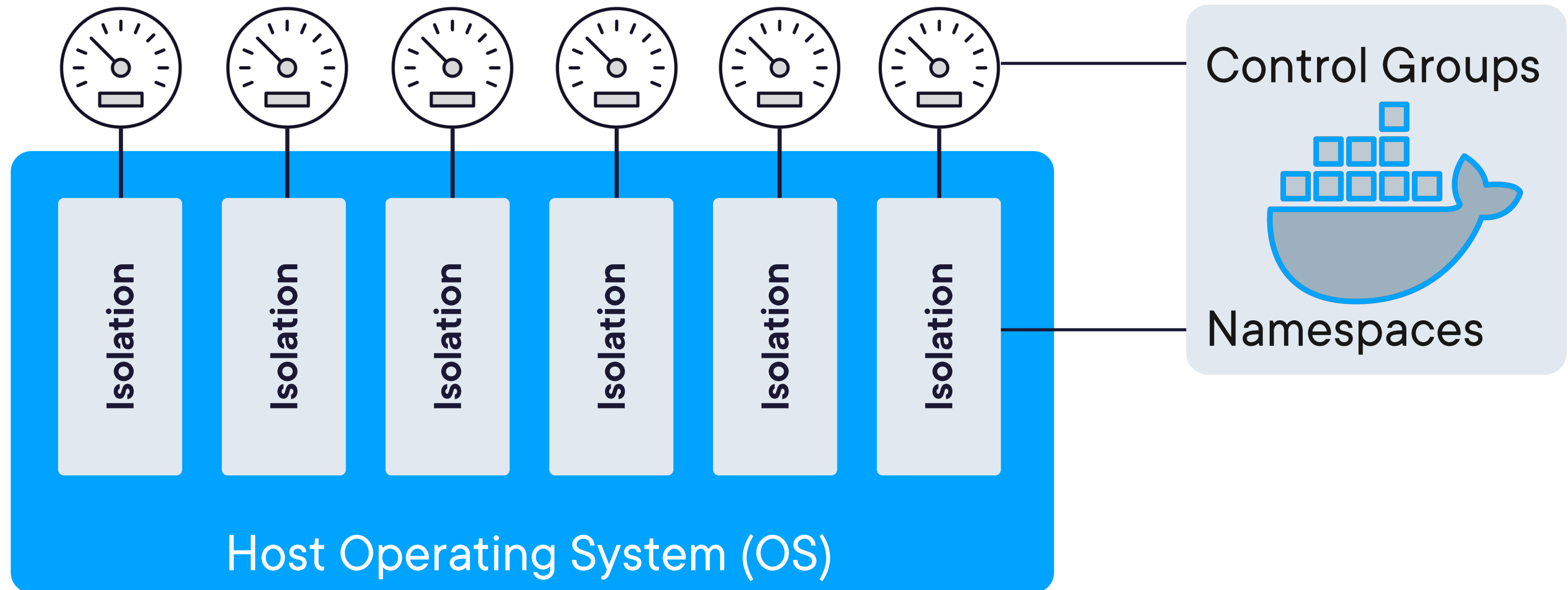
Container

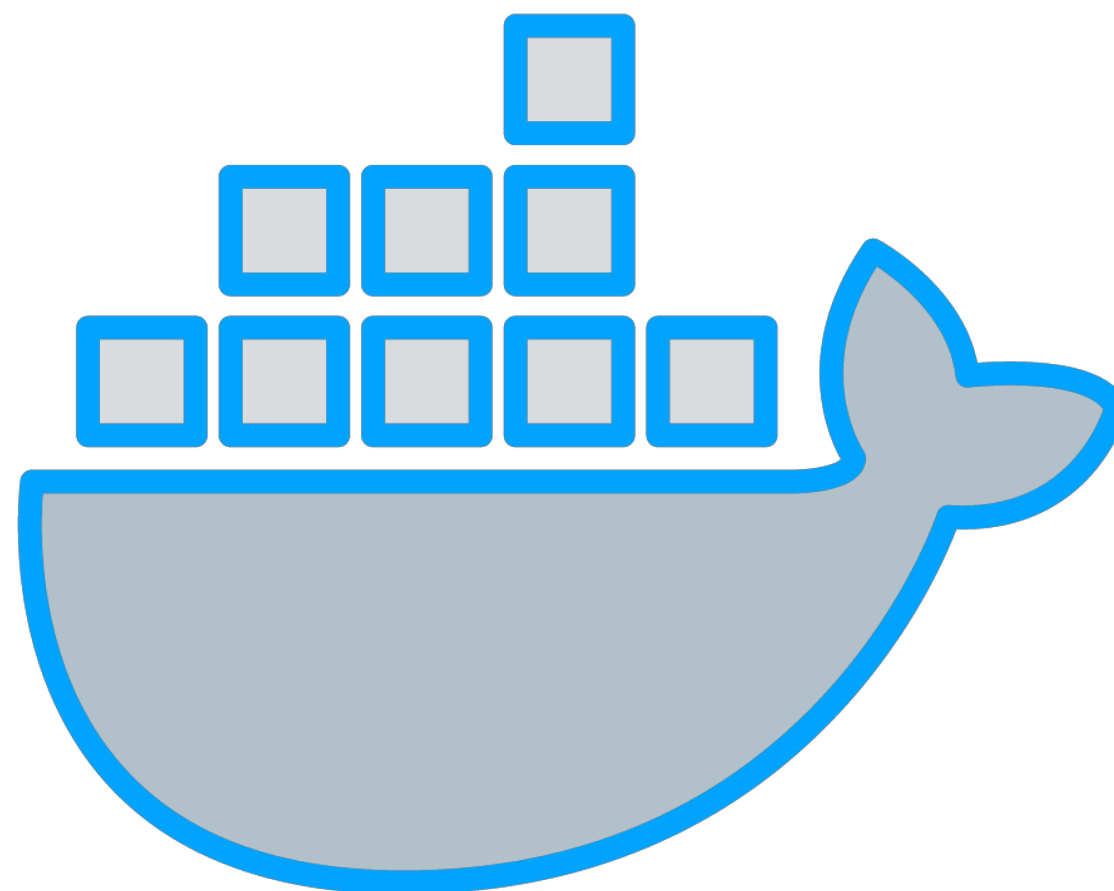
Isolated area of OS with resource limits applied.

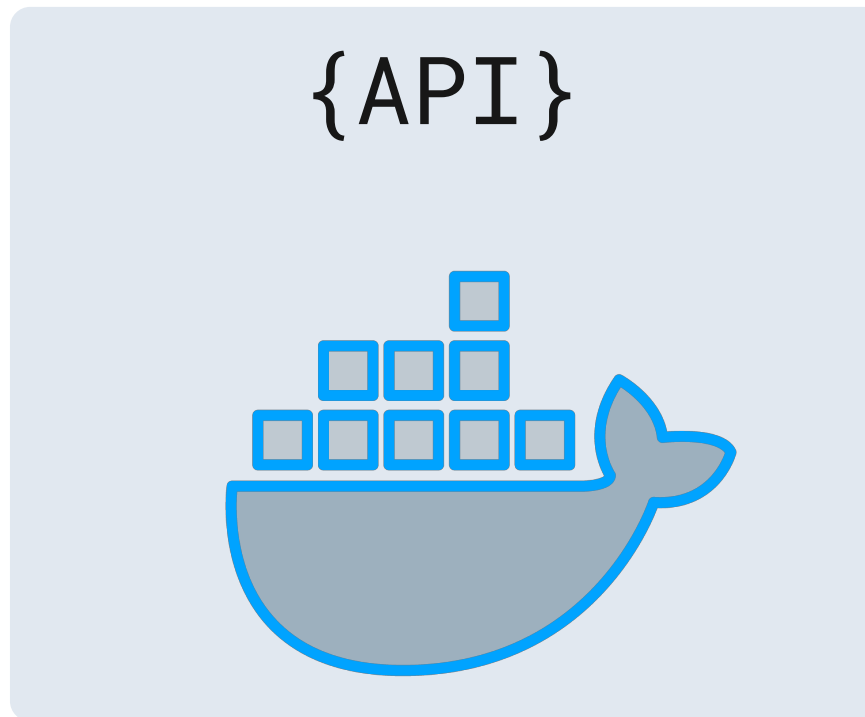


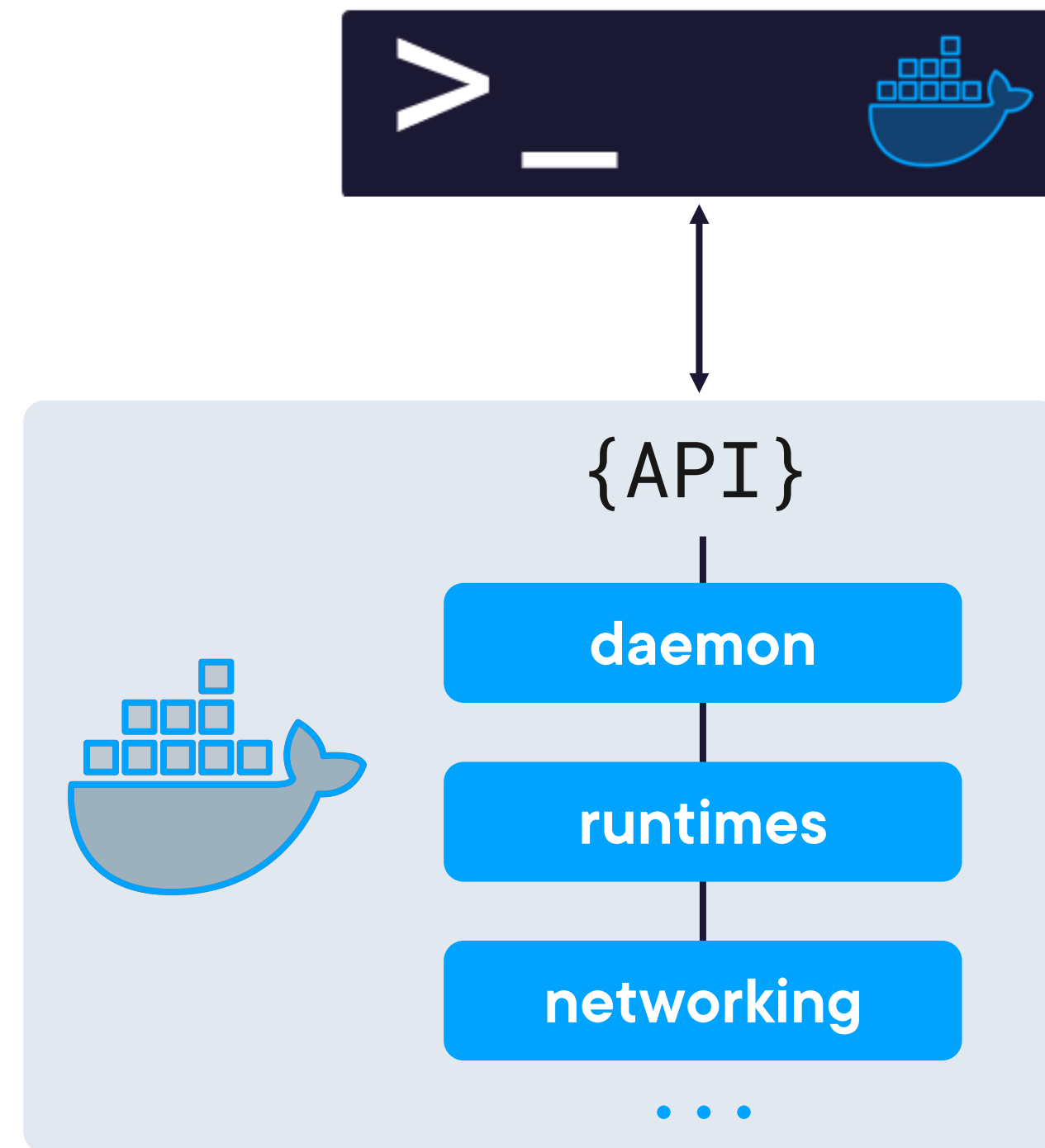
Container

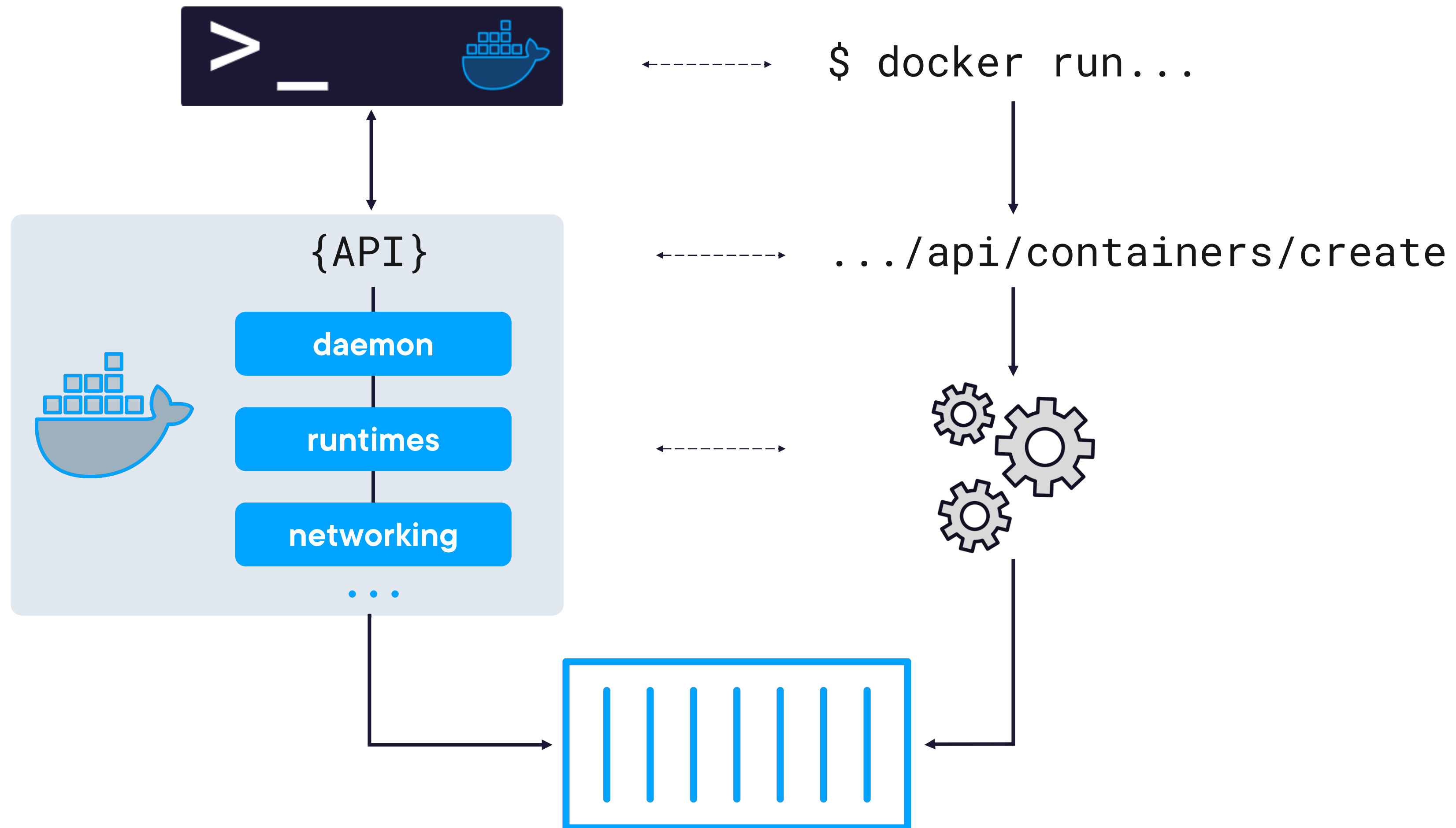
Isolated area of OS with resource limits applied.







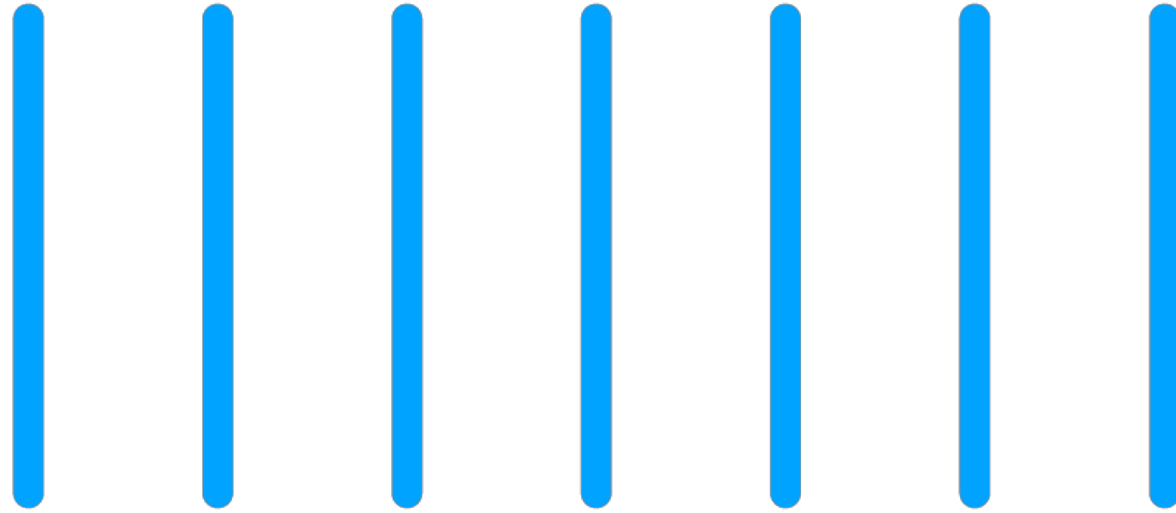


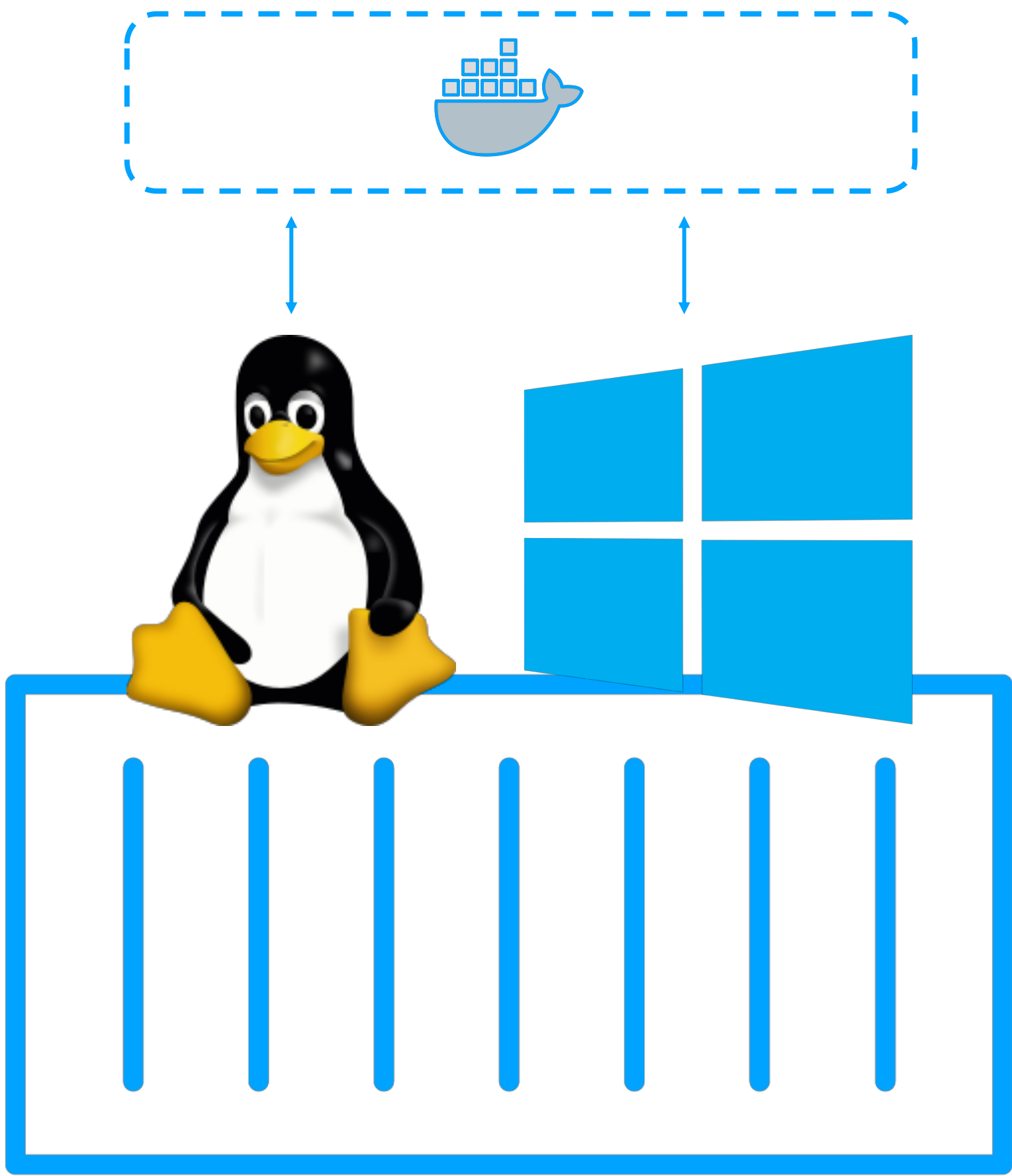


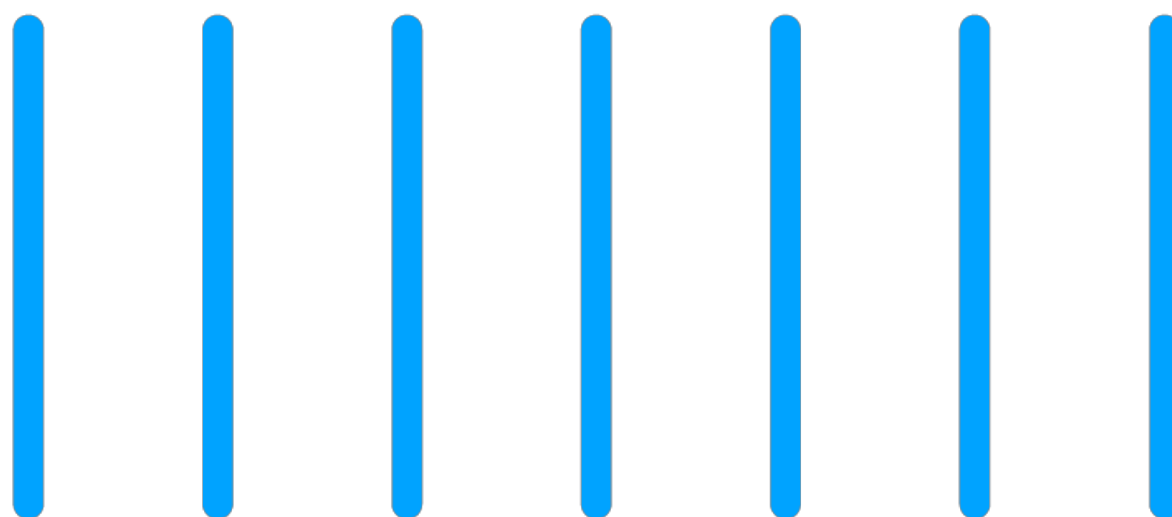
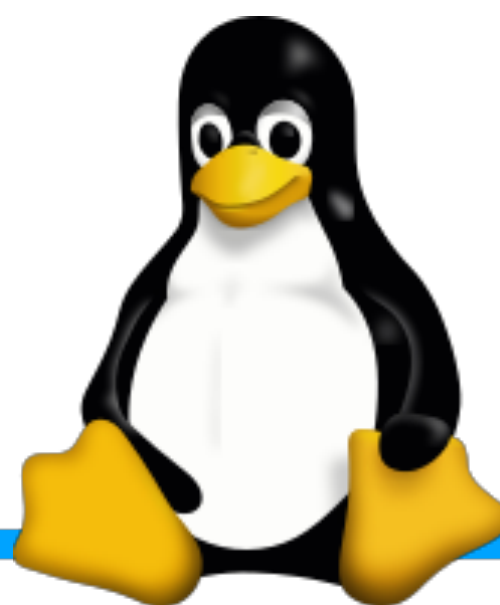
Up Next:

Kernel Internals









Fundamental Container Primitives in Kernel

Namespaces

All about isolation

Control Groups

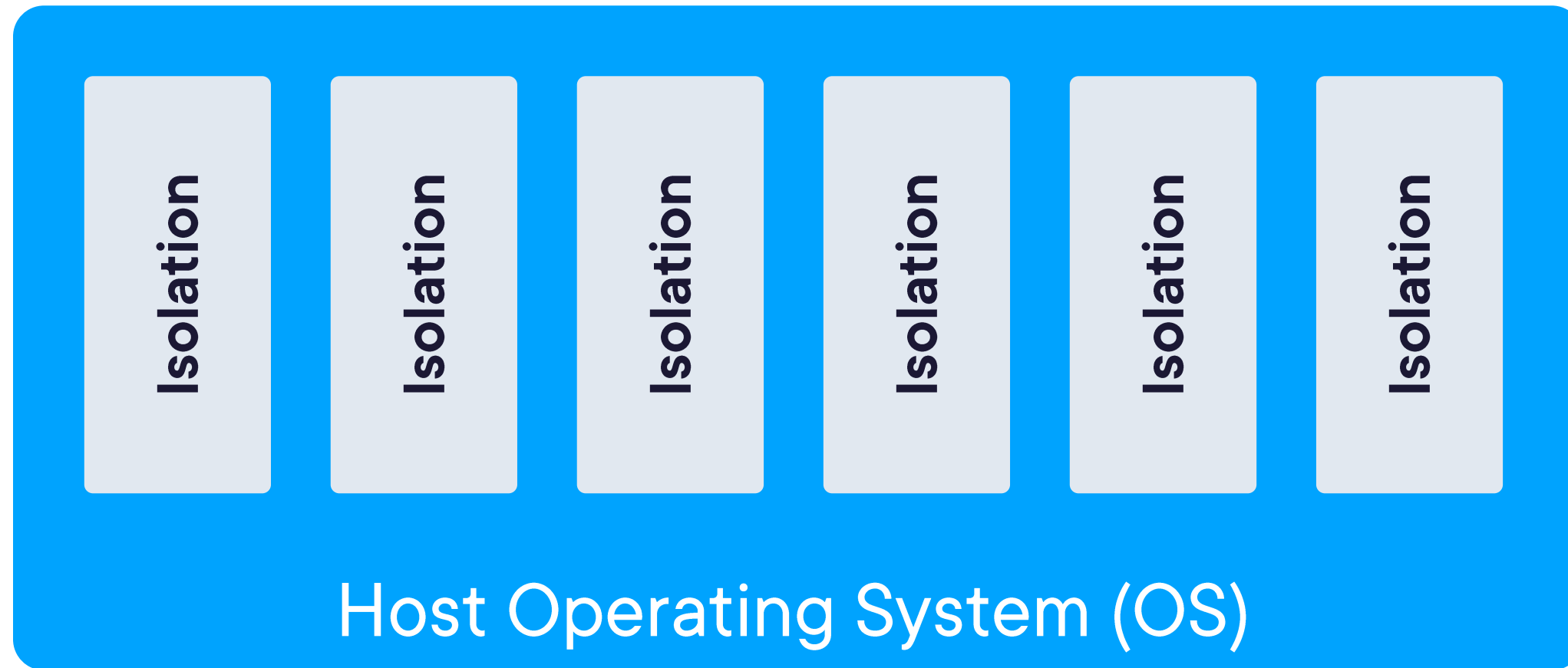
All about limits



Namespaces
All about isolation

Control Groups
All about limits

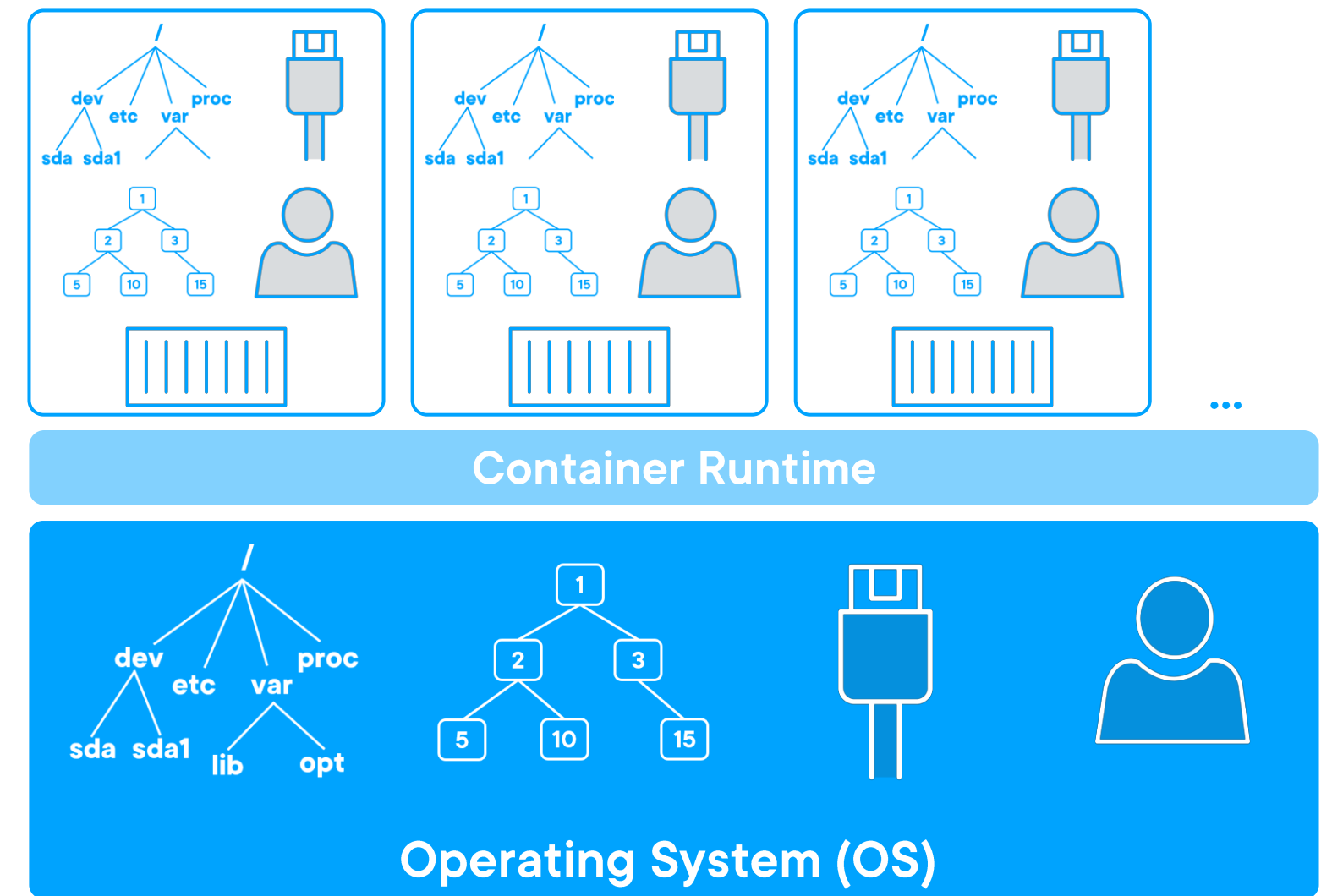
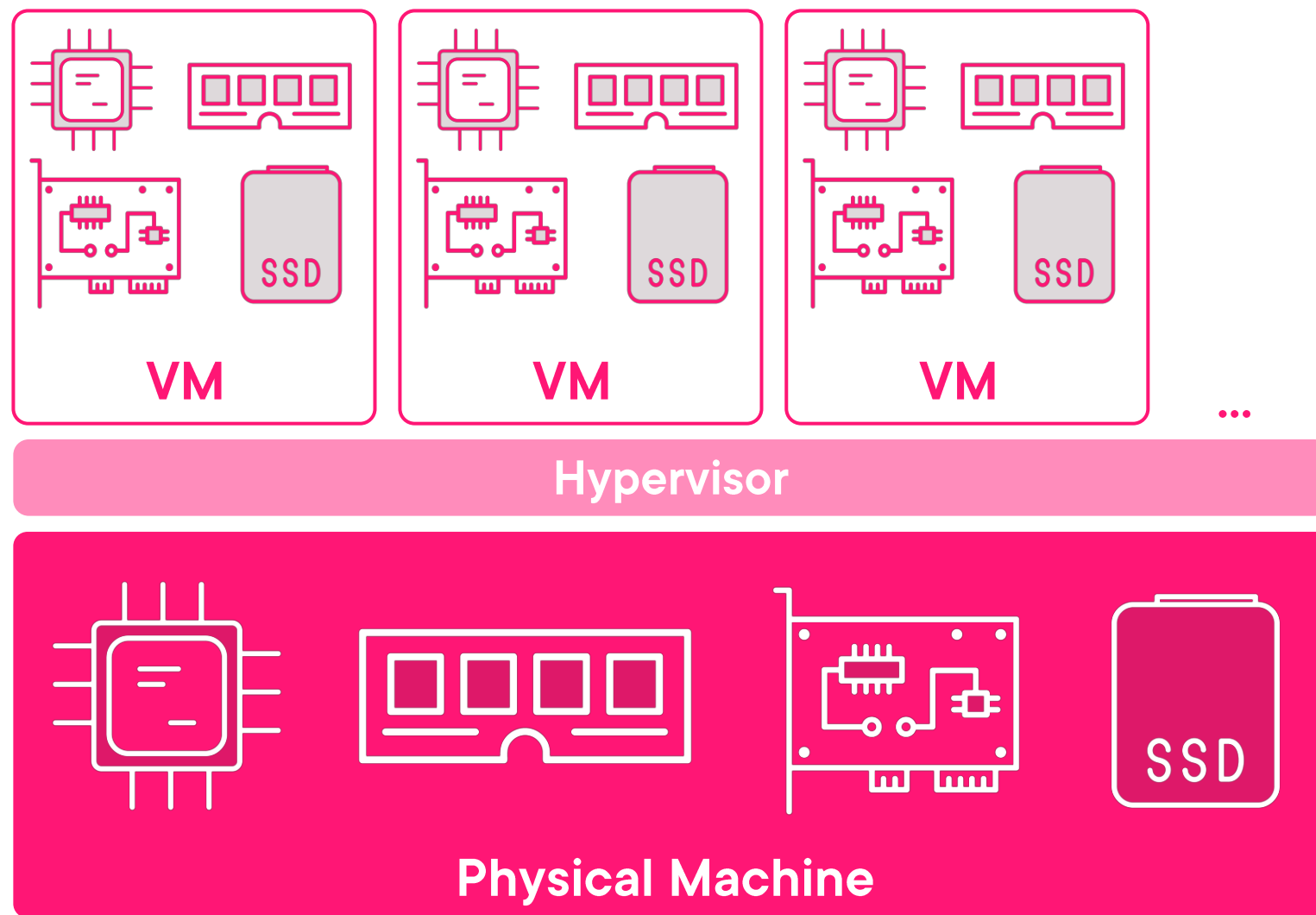




Namespaces
All about isolation

Control Groups
All about limits

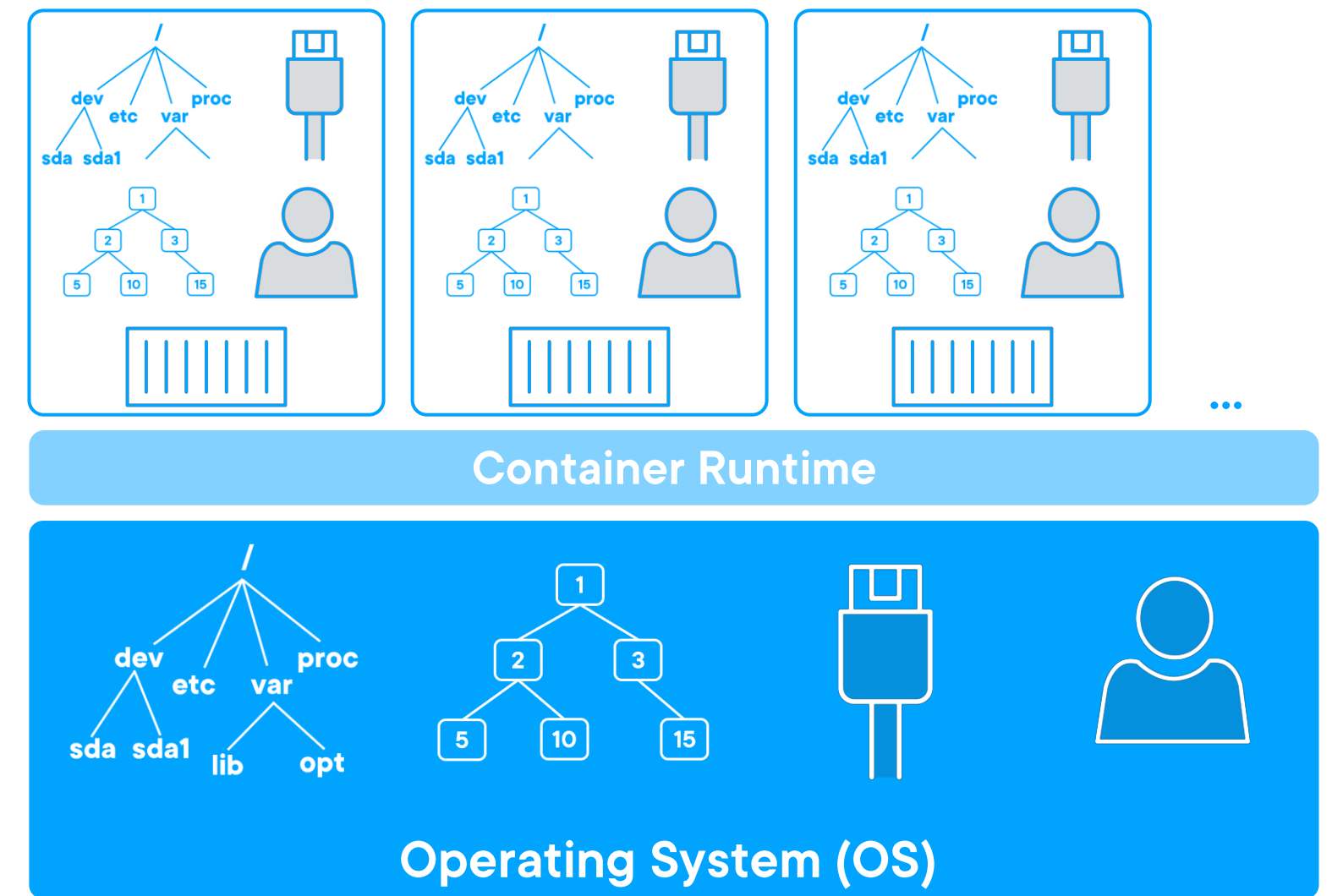
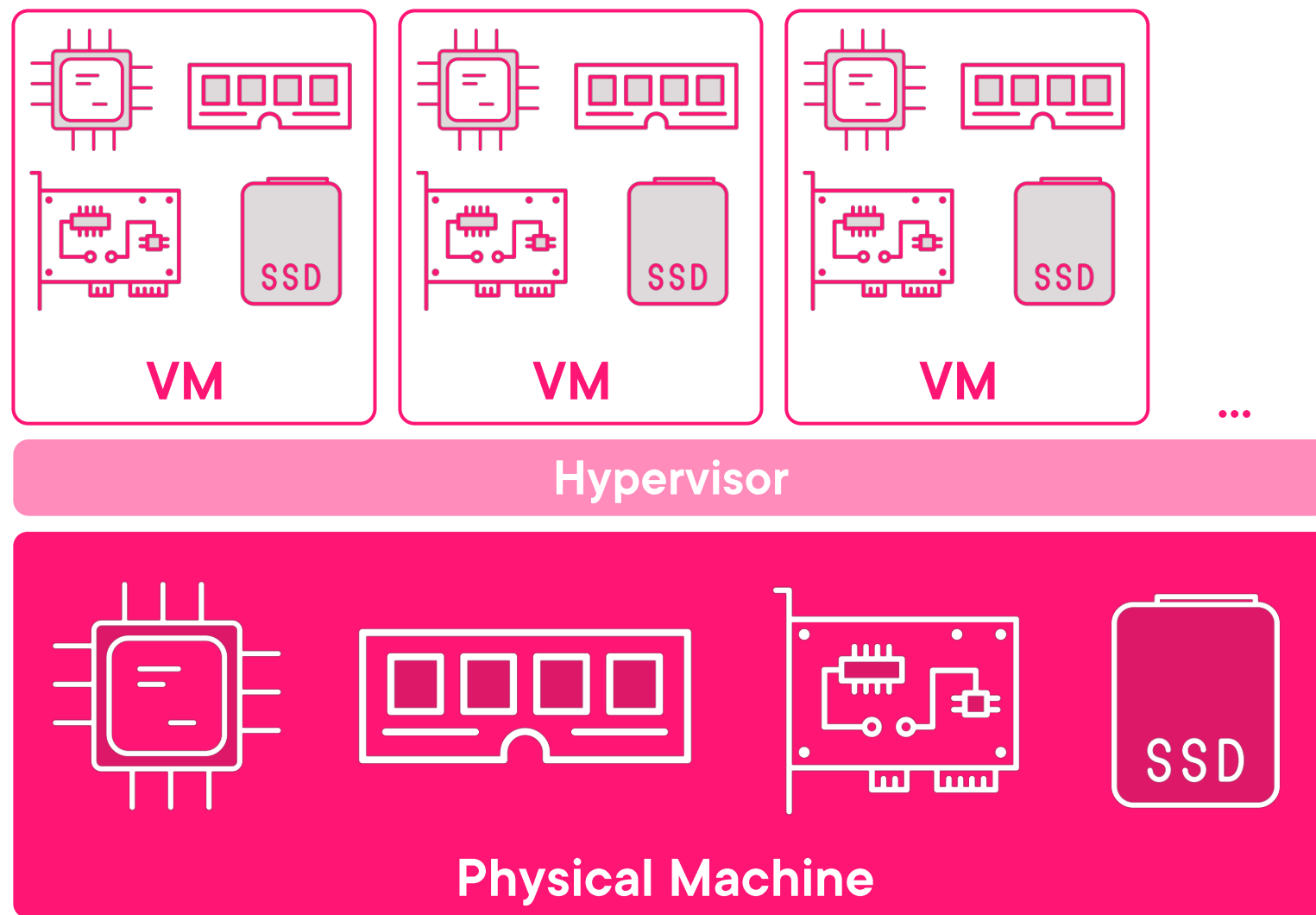




Namespaces
All about isolation

Control Groups
All about limits

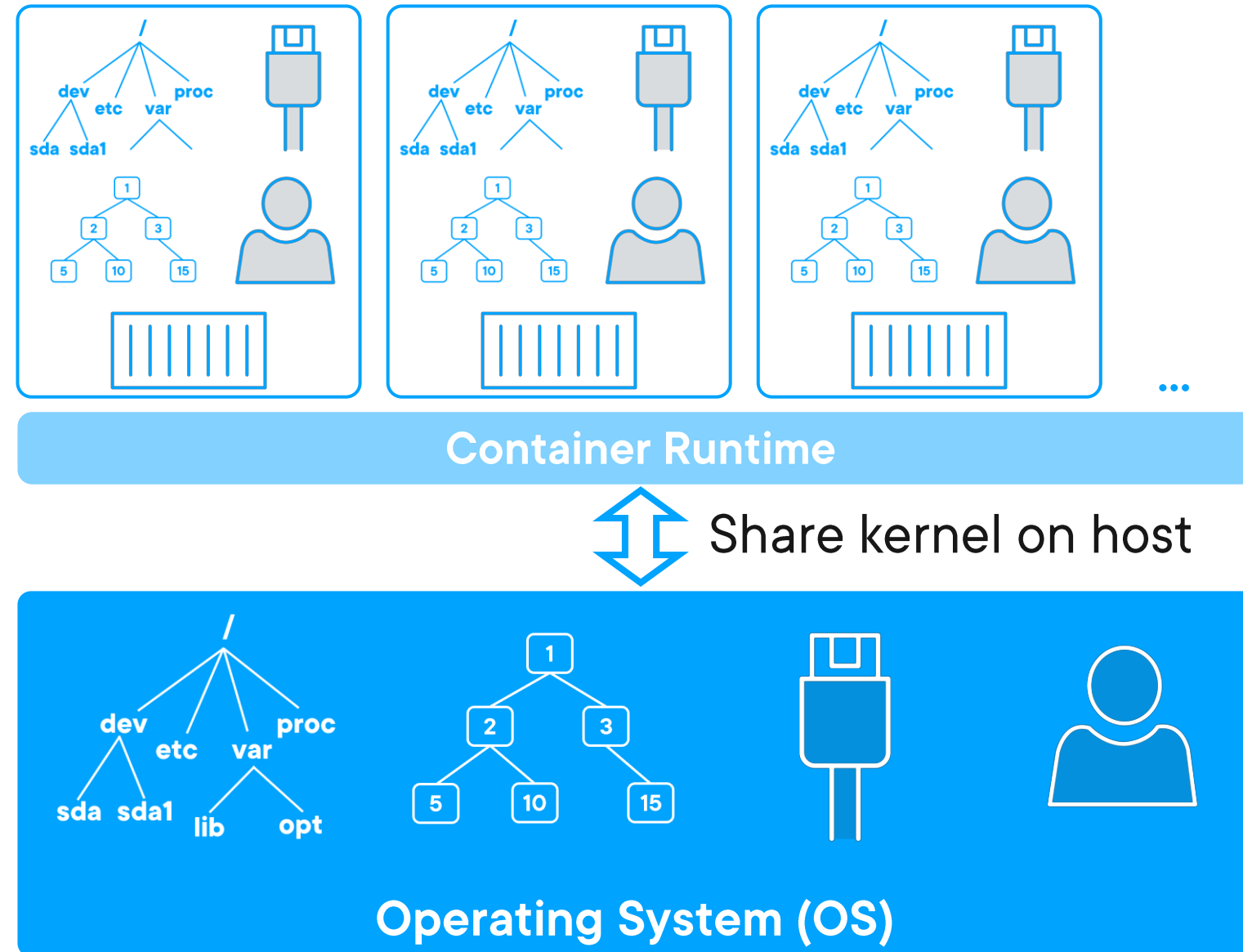




Namespaces
All about isolation

Control Groups
All about limits

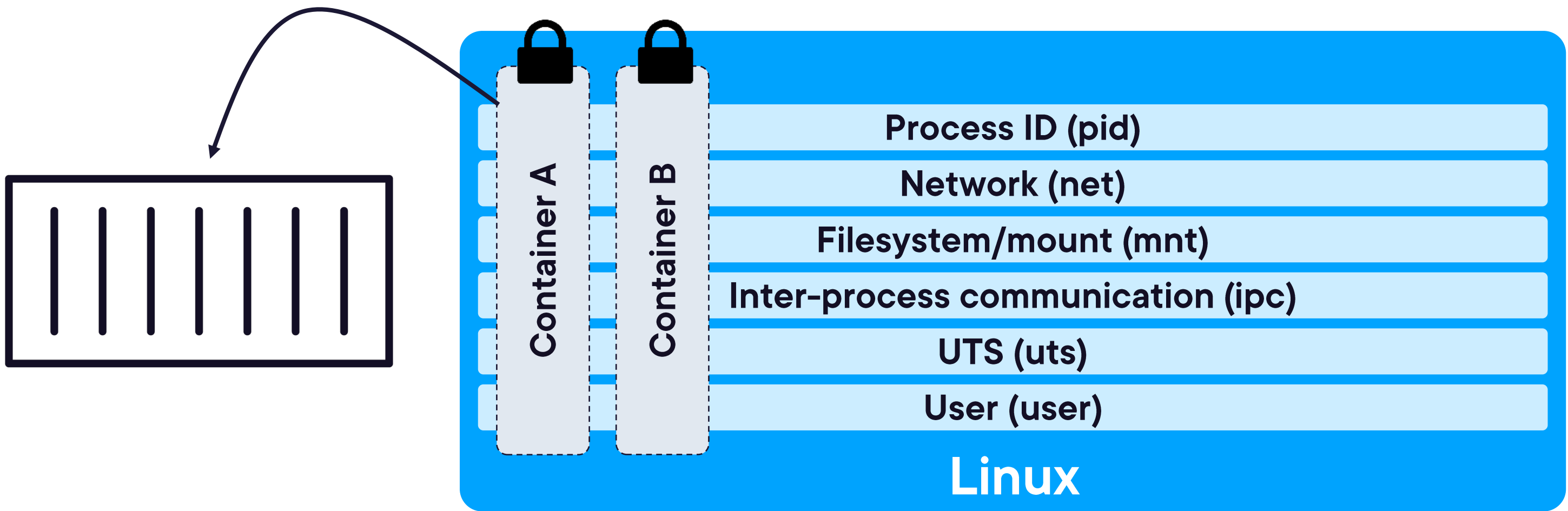




Namespaces
All about isolation

Control Groups
All about limits

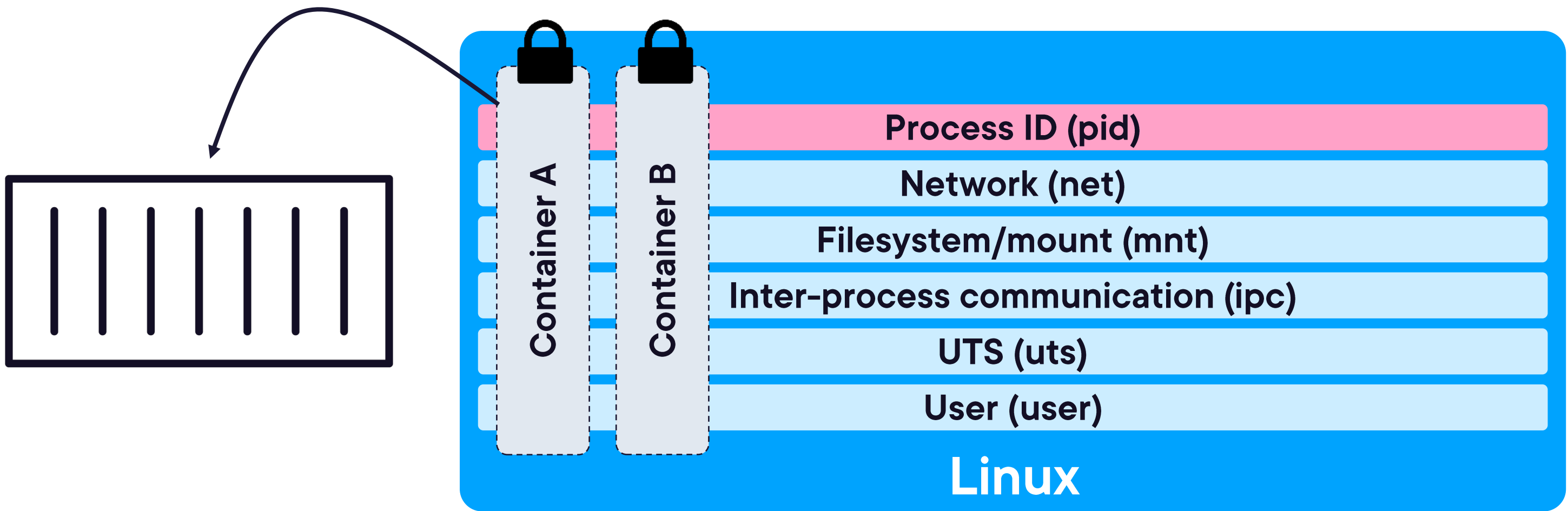




Namespaces
All about isolation

Control Groups
All about limits

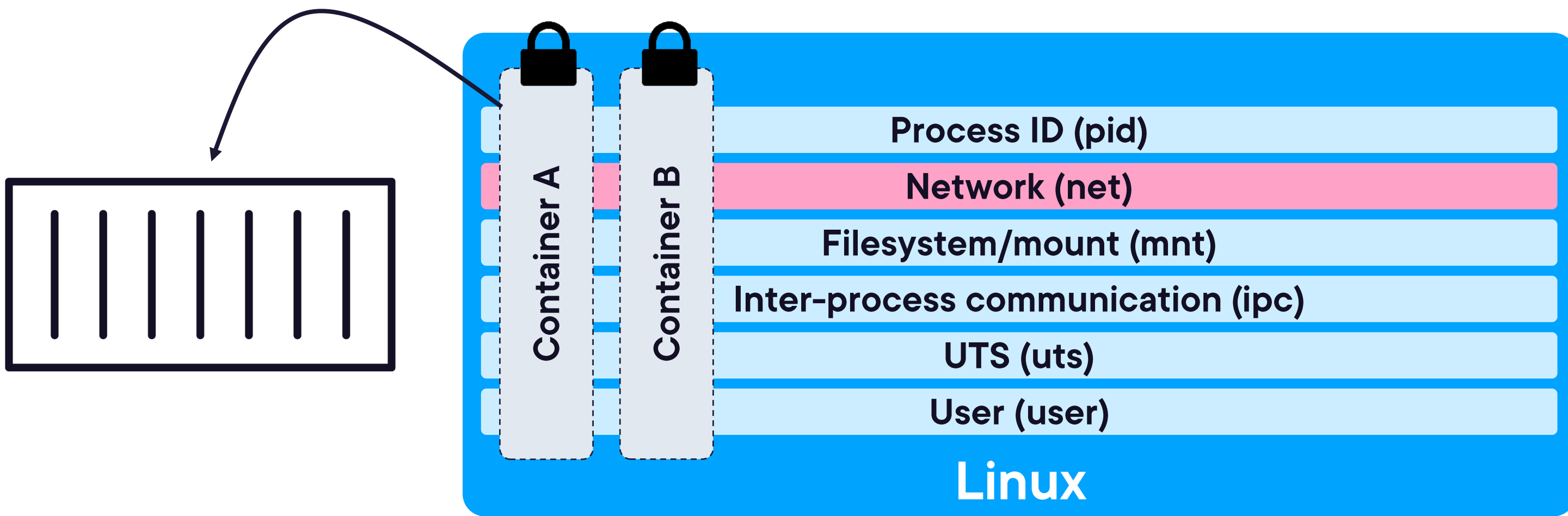




Namespaces
All about isolation

Control Groups
All about limits

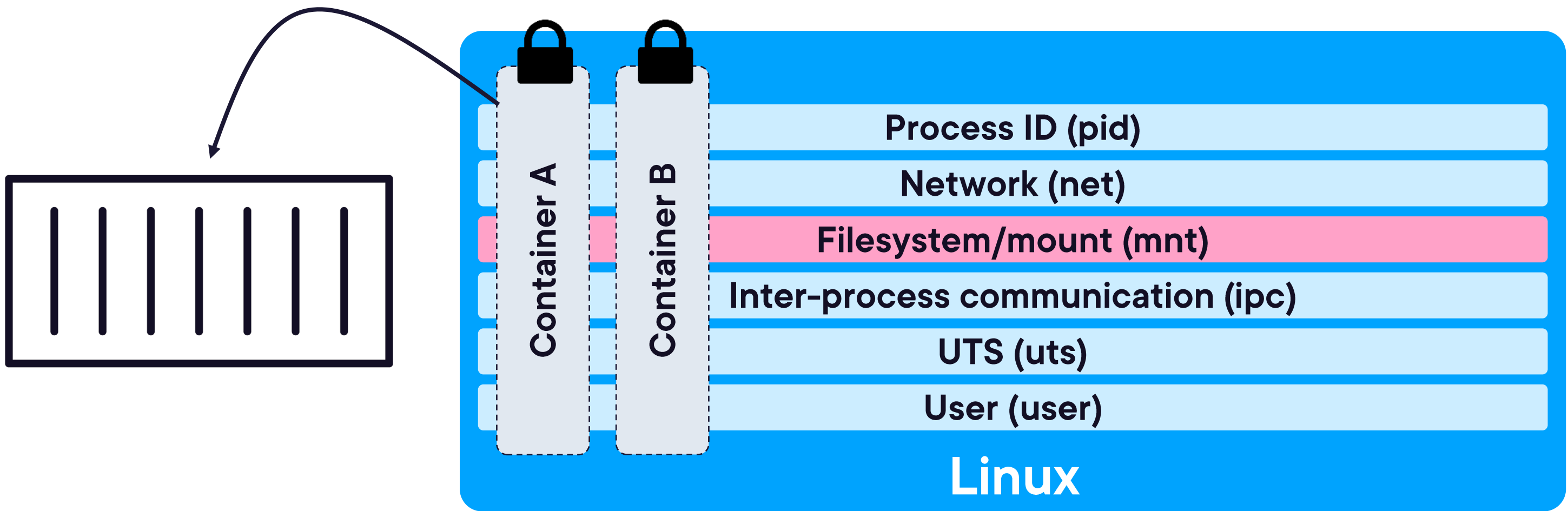




Namespaces
All about isolation

Control Groups
All about limits

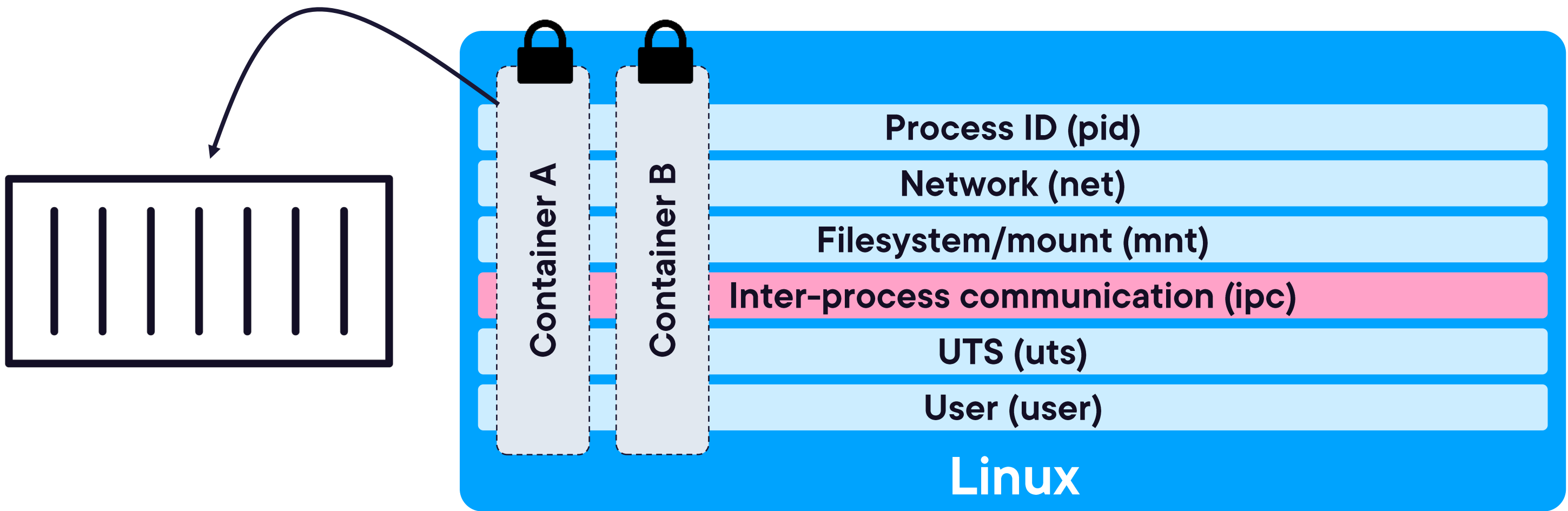




Namespaces
All about isolation

Control Groups
All about limits

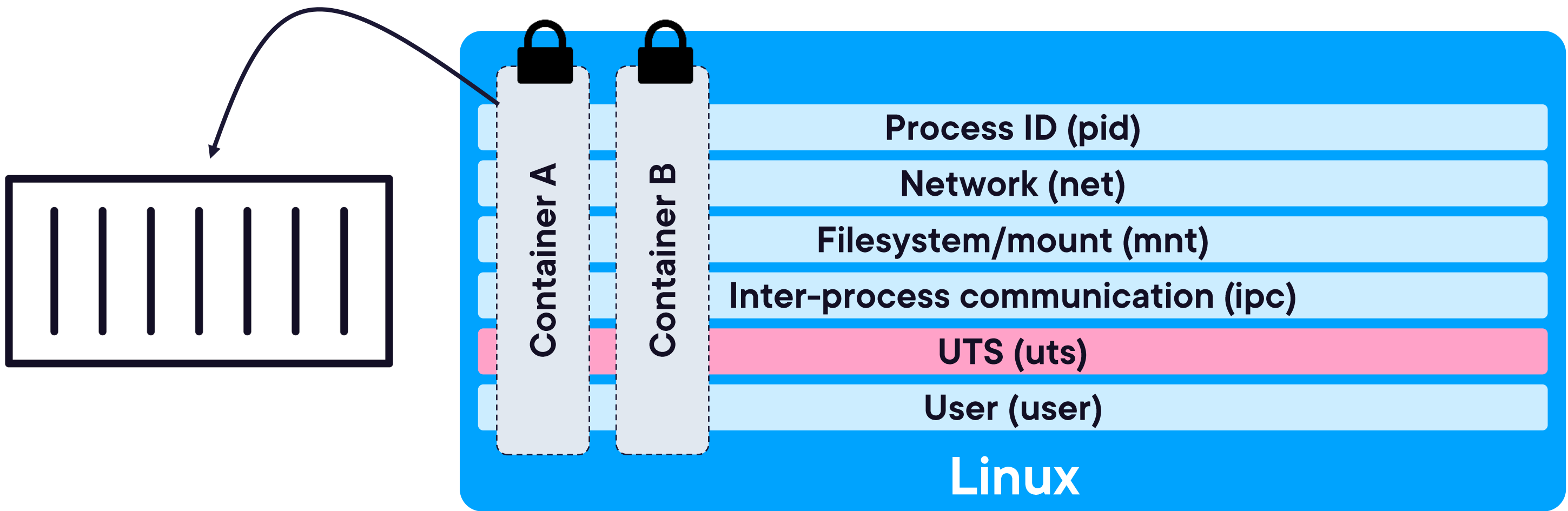




Namespaces
All about isolation

Control Groups
All about limits

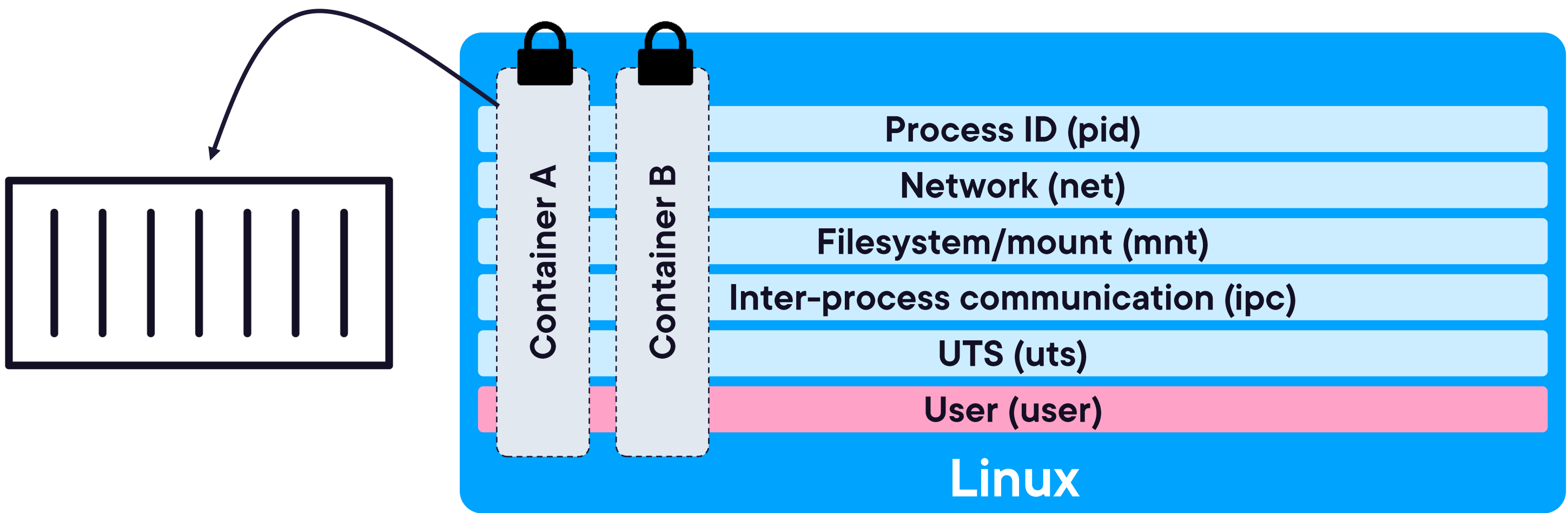




Namespaces
All about isolation

Control Groups
All about limits

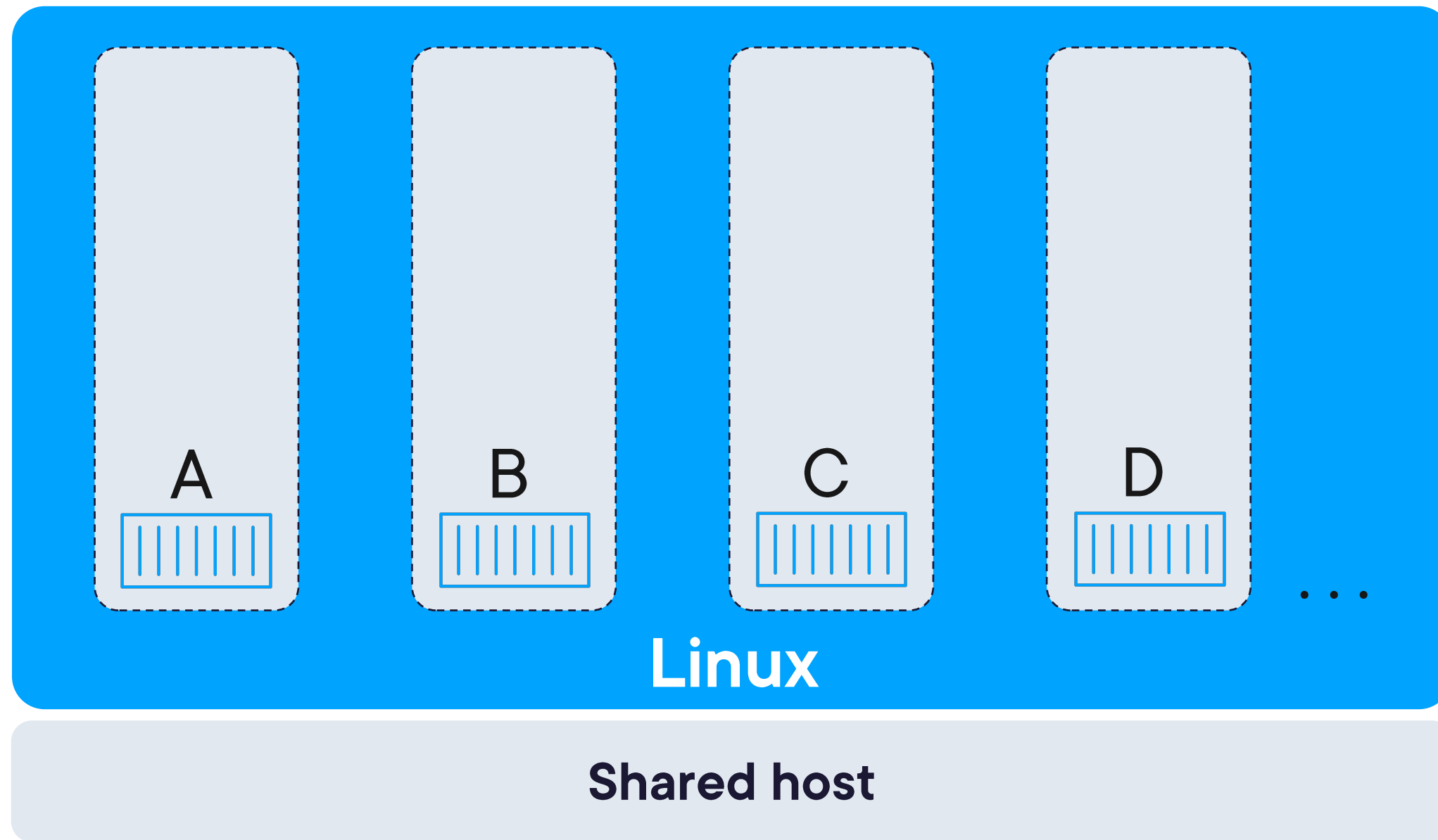




Namespaces
All about isolation

Control Groups
All about limits

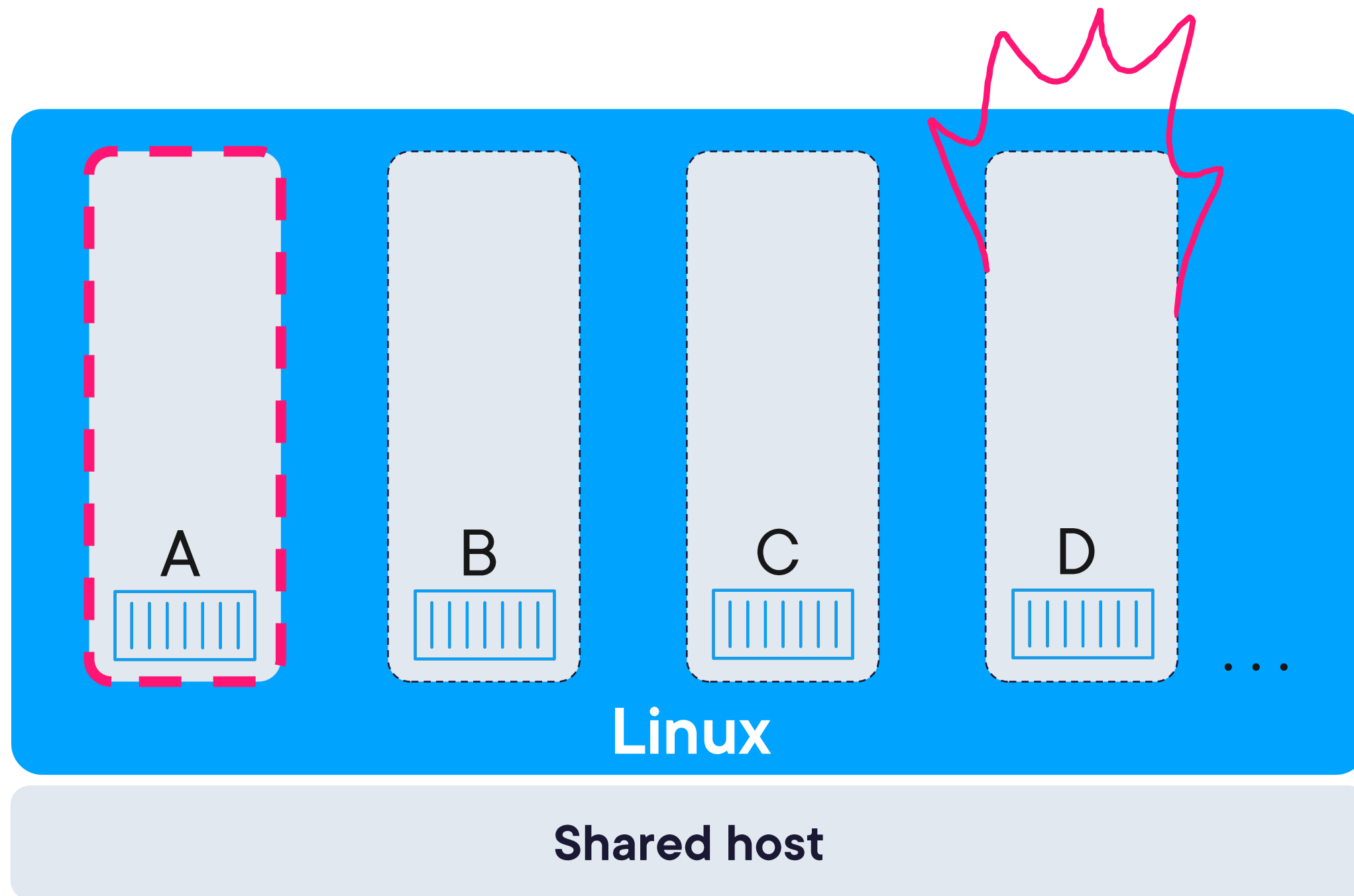




Namespaces
All about isolation

Control Groups
All about limits

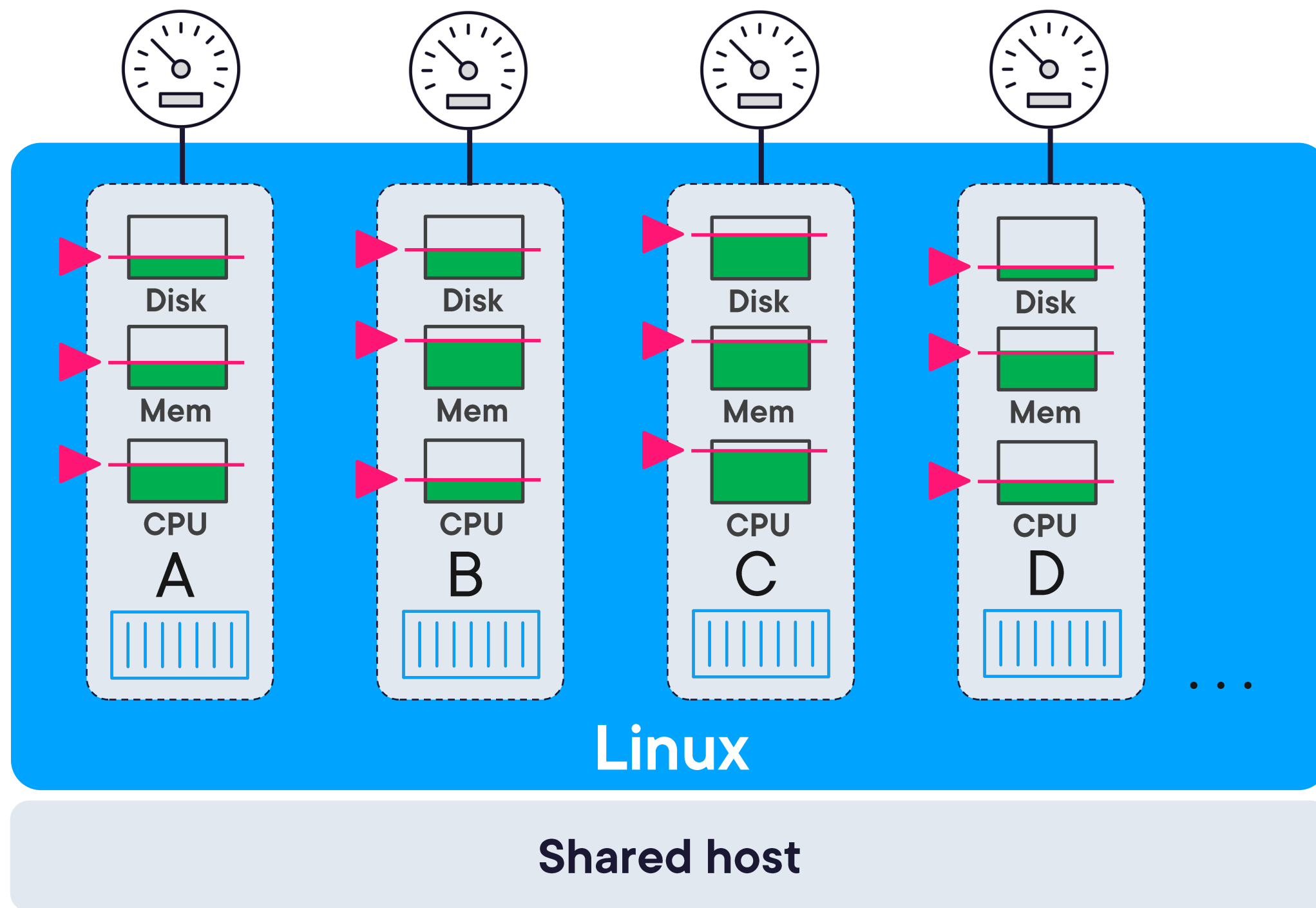




Namespaces
All about isolation

Control Groups
All about limits





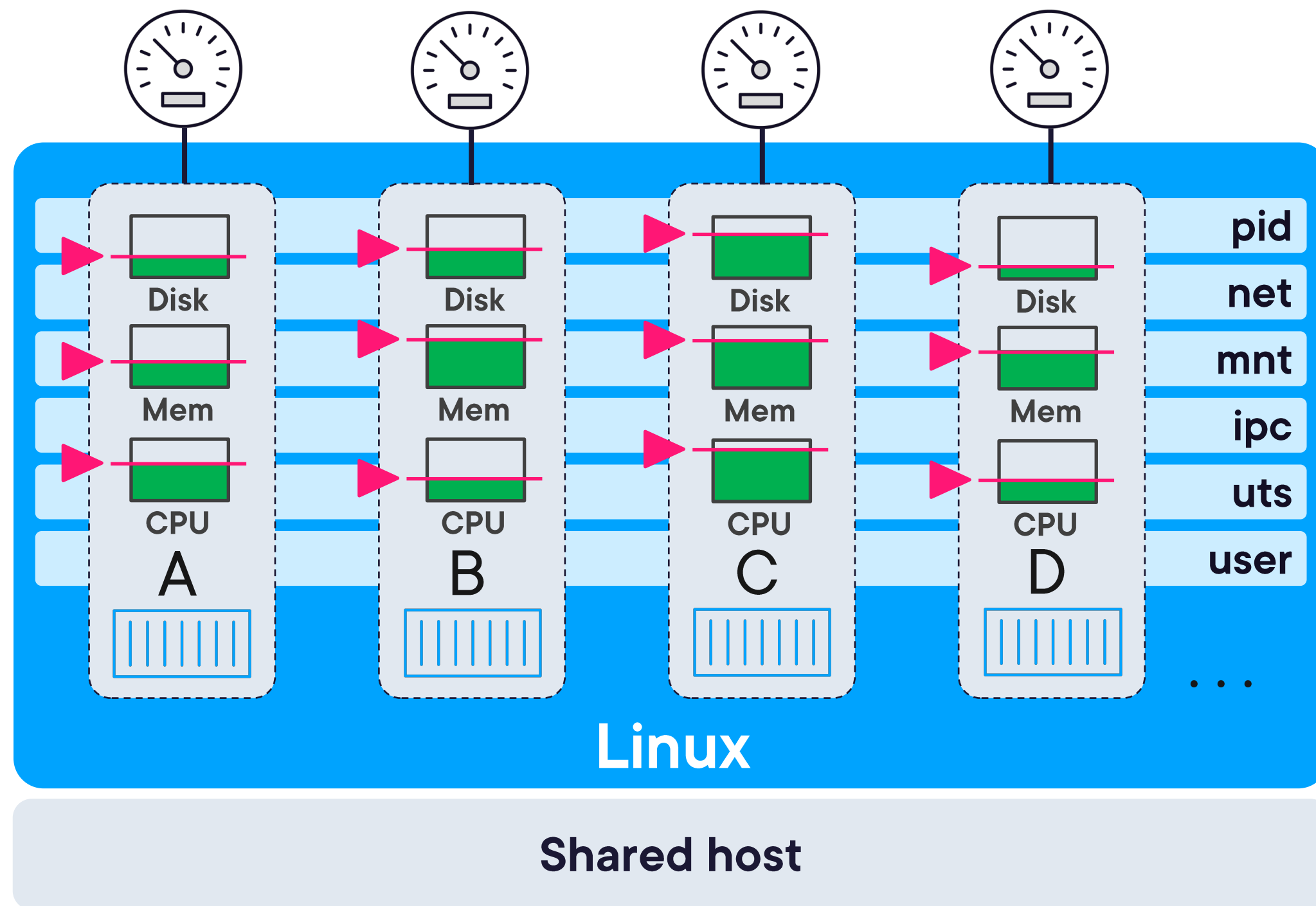
Namespaces

All about isolation

Control Groups

All about limits

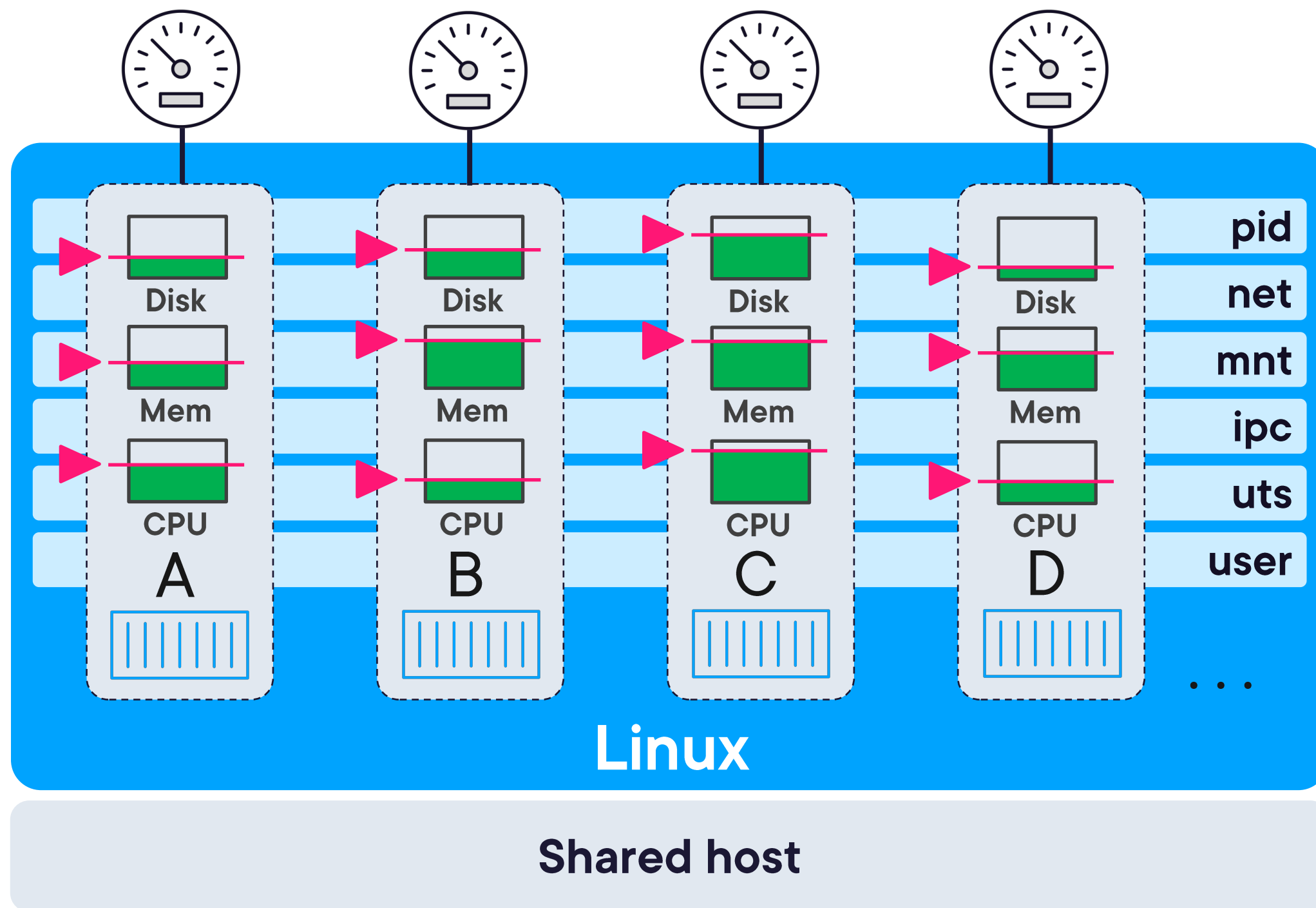




Namespaces
All about isolation

Control Groups
All about limits





Layered mounts

Copy on Write

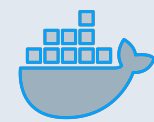
Namespaces

All about isolation

Control Groups

All about limits





Docker – The Easy Layer...



Layered mounts
Copy on Write

Namespaces
All about isolation

Control Groups
All about limits

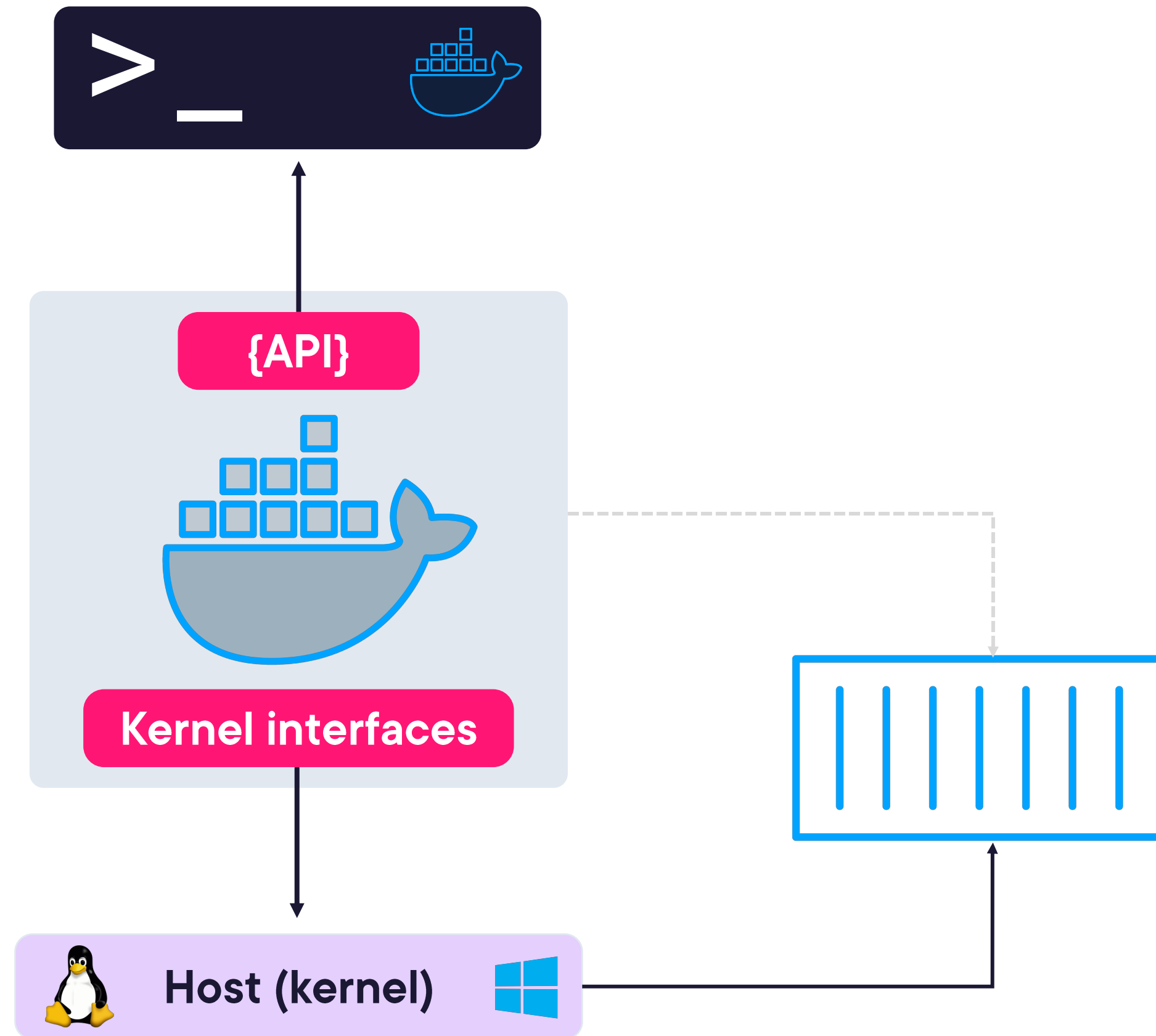
...



Up Next:

Docker Magic







dotCloud



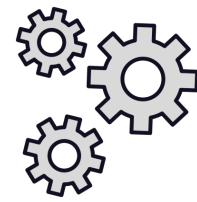


dotCloud



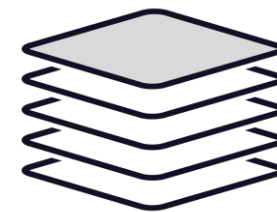


dotCloud



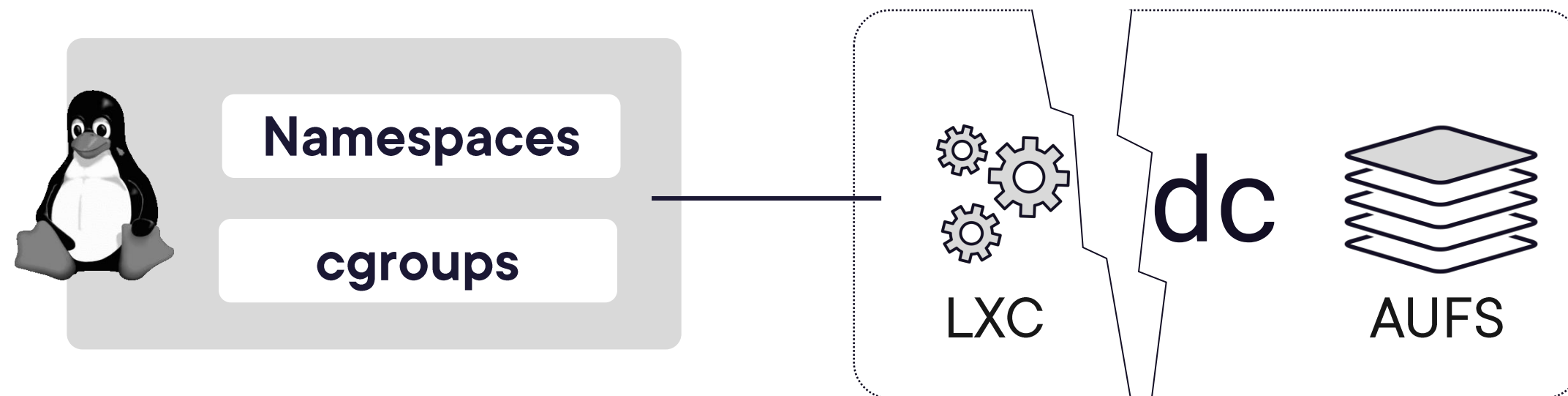
LXC

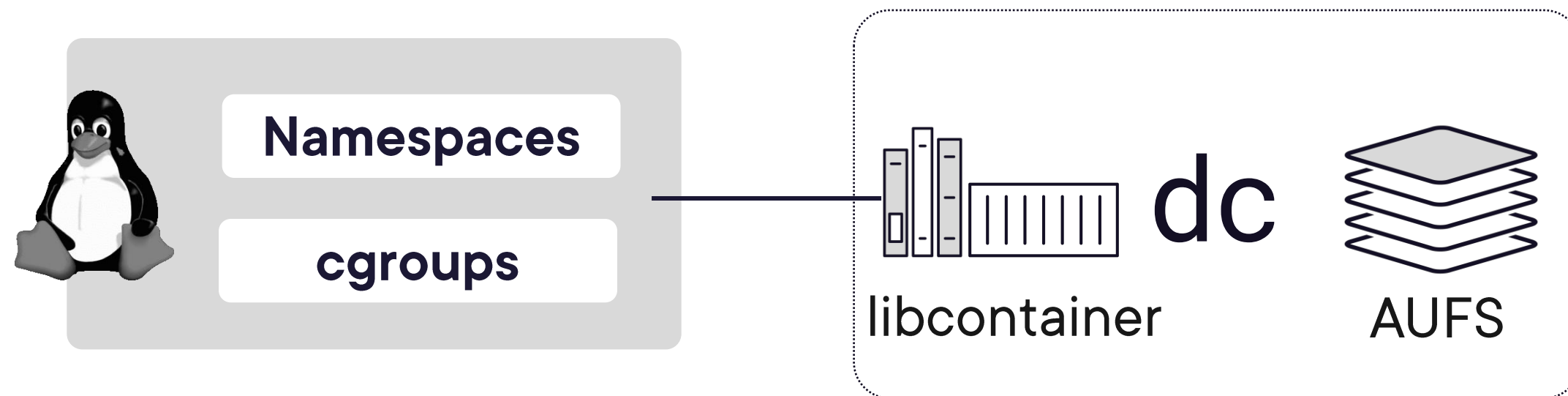
dc

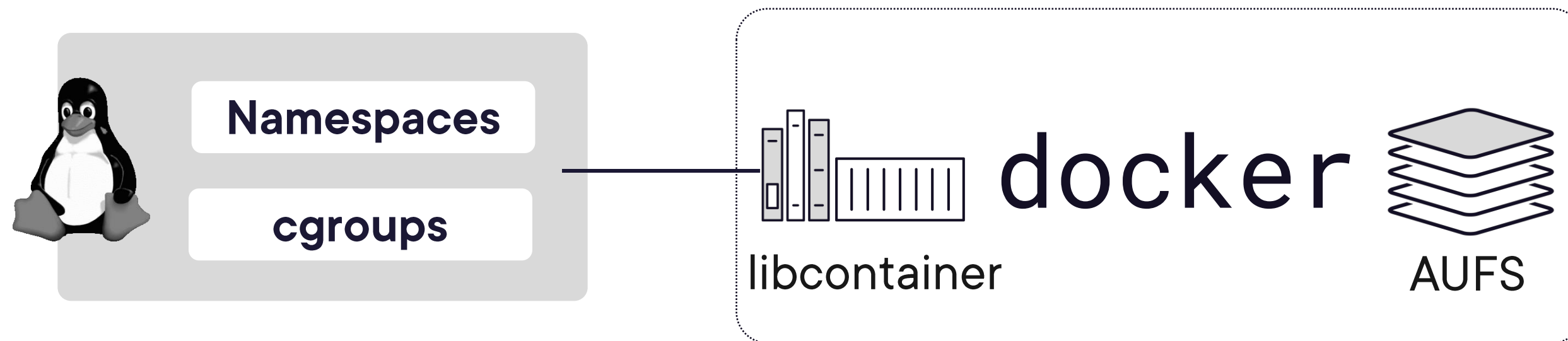


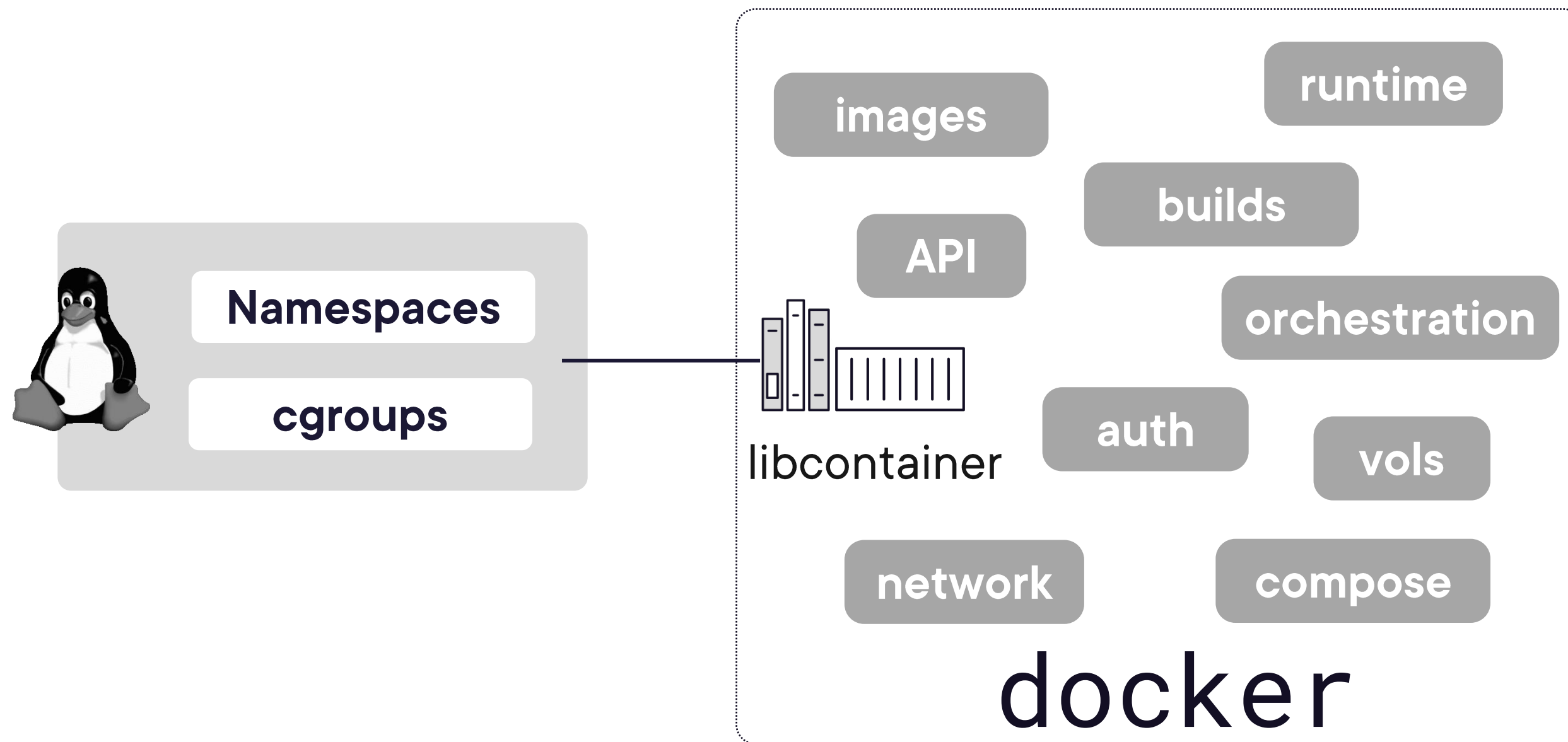
AUFS

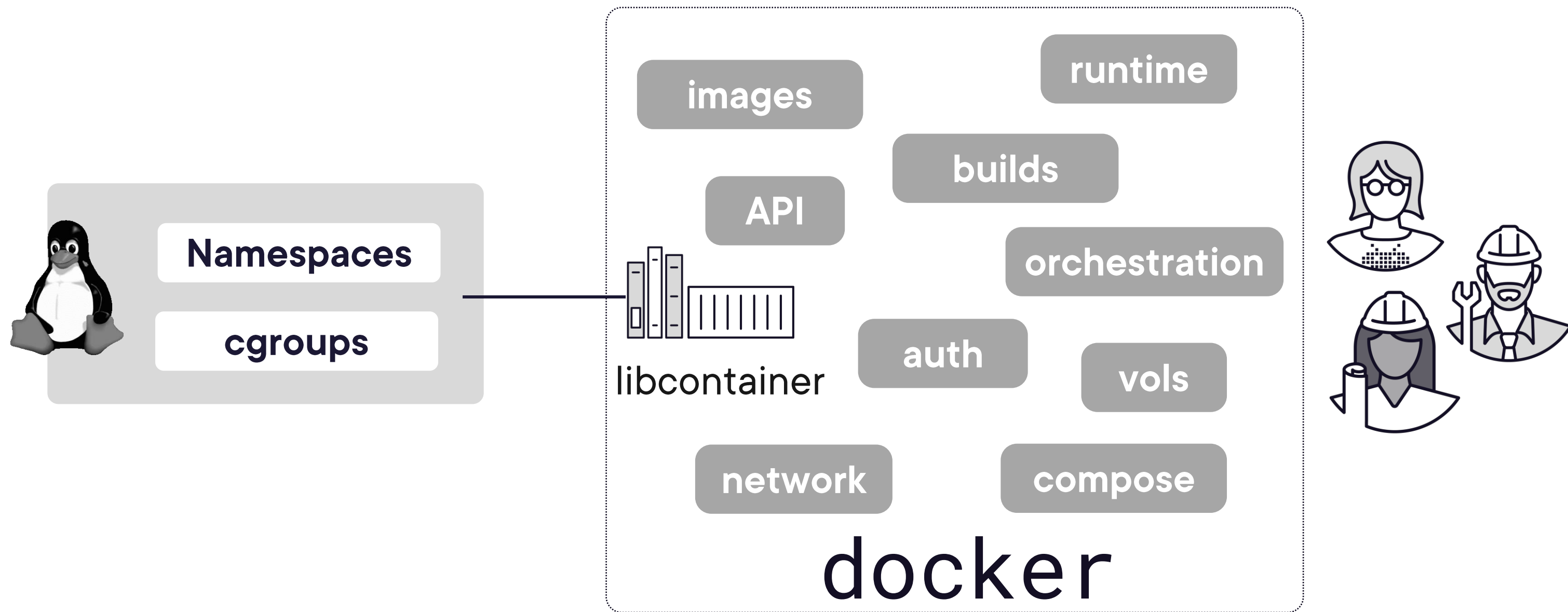


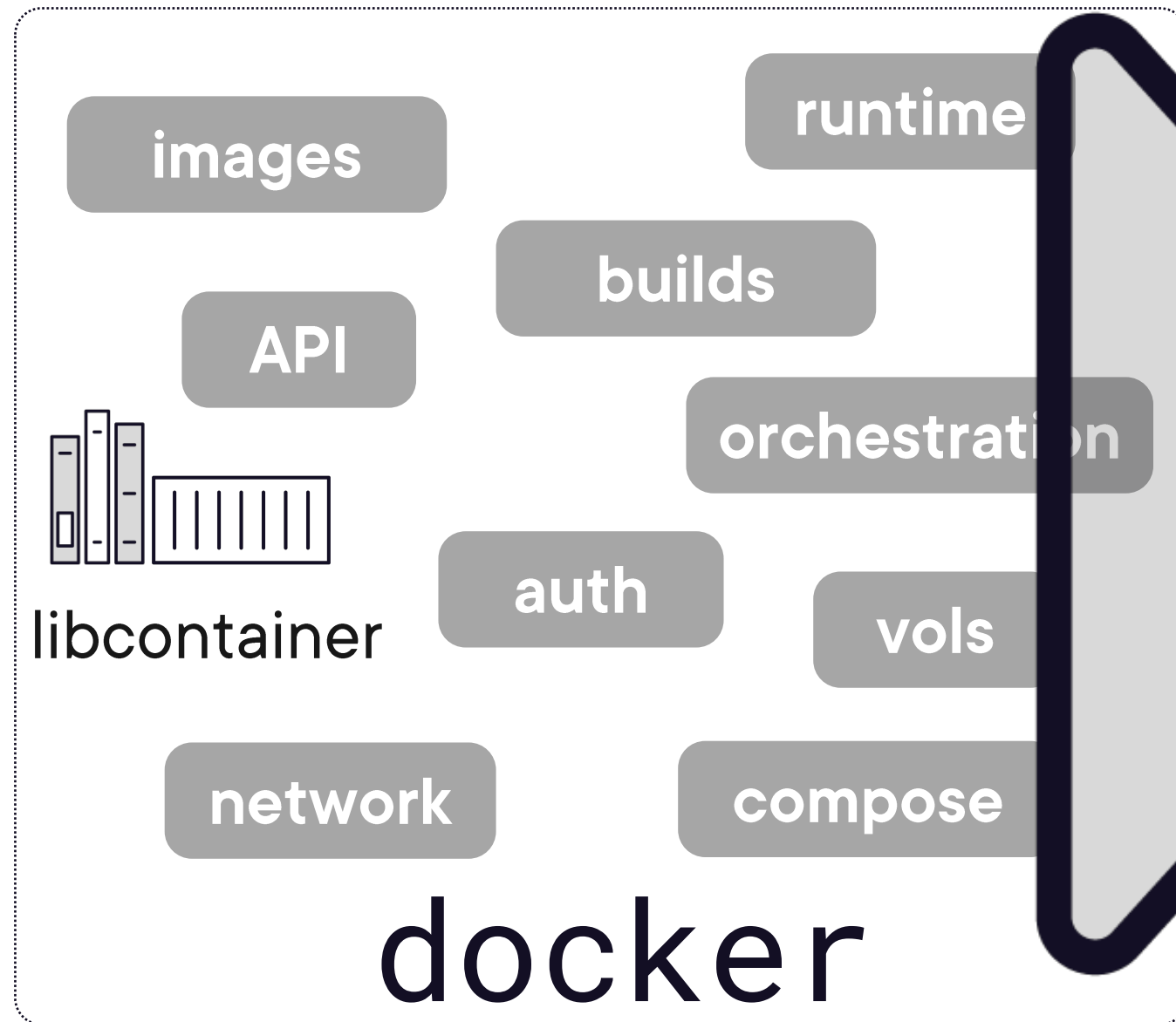












OPEN CONTAINER
INITIATIVE

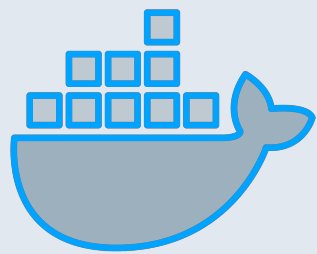
Image spec

Runtime spec



\$ docker run 

{REST} POST /vX.X/containers/create HTTP/1.1



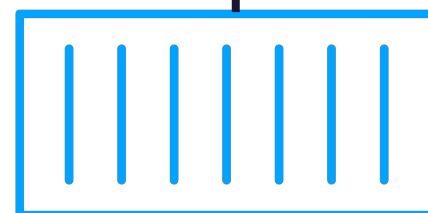
daemon

gRPC {API} client.NewContainer(context, ...

container 

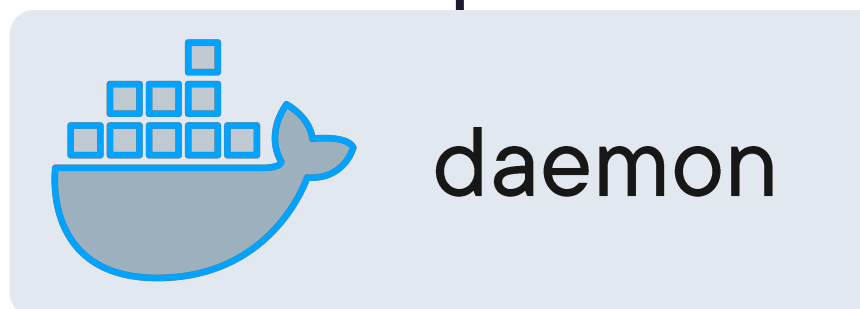
Shim

 RUNC



\$ docker run 

{REST} POST /vX.X/containers/create HTTP/1.1



gRPC {API} client.NewContainer(context, ...

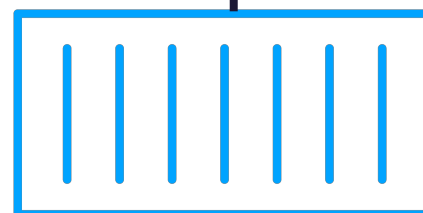
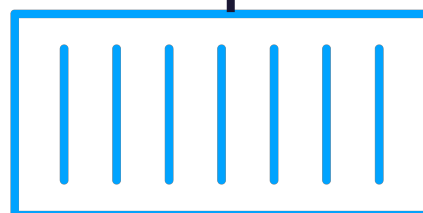


Shim

Shim ...

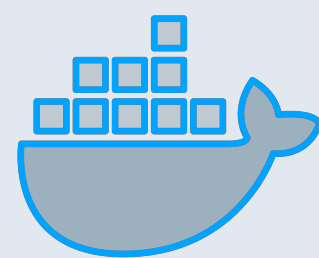
 RUNC

 RUNC



```
$ docker run
```

{REST} POST /vX.X/containers/create HTTP/1.1



daemon

gRPC {API} client.NewContainer(context, ...



CLOUD NATIVE
COMPUTING FOUNDATION

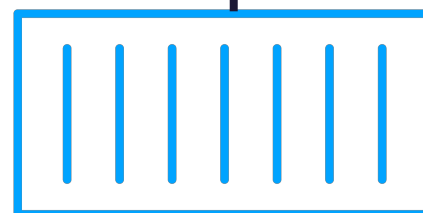
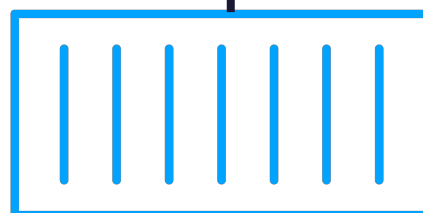
containerd

Shim

Shim ...

RC RUNC

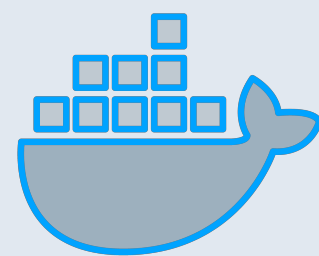
RC RUNC



OPEN CONTAINER
INITIATIVE



\$ docker run 



daemon

Docker API,
Image management...



CLOUD NATIVE
COMPUTING FOUNDATION

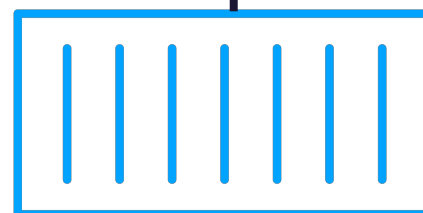
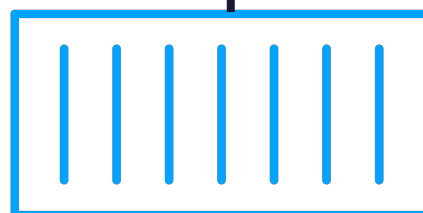
container 

Shim

Shim ...

 RUNC

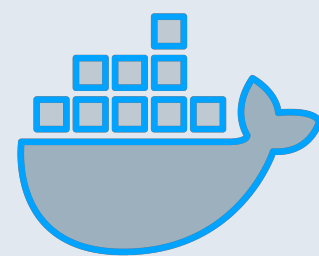
 RUNC



OPEN CONTAINER
INITIATIVE



\$ docker run 



daemon

Docker API,
Image management...



CLOUD NATIVE
COMPUTING FOUNDATION

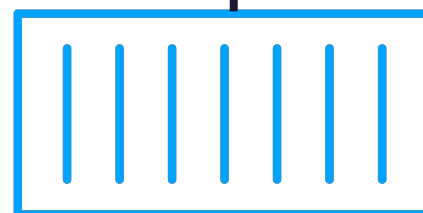
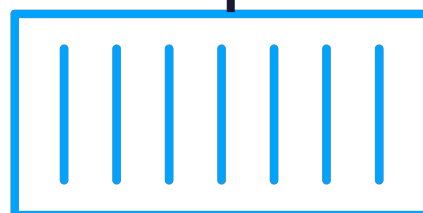
container 

Shim

Shim ...

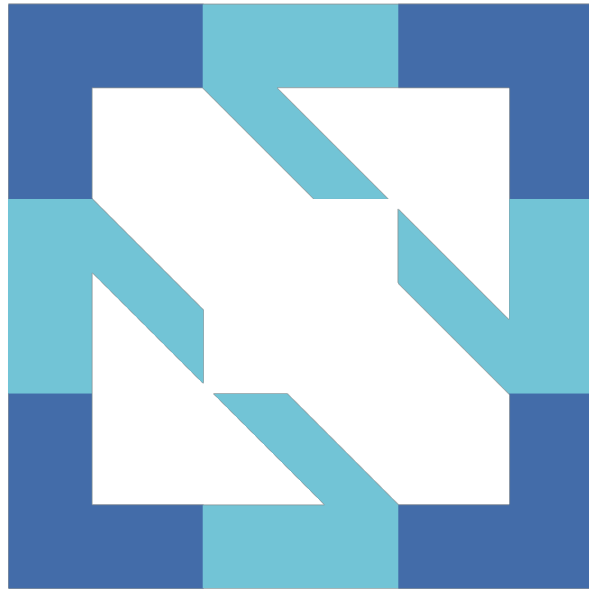
 RUNC

 RUNC



OPEN CONTAINER
INITIATIVE





CLOUD NATIVE
COMPUTING FOUNDATION



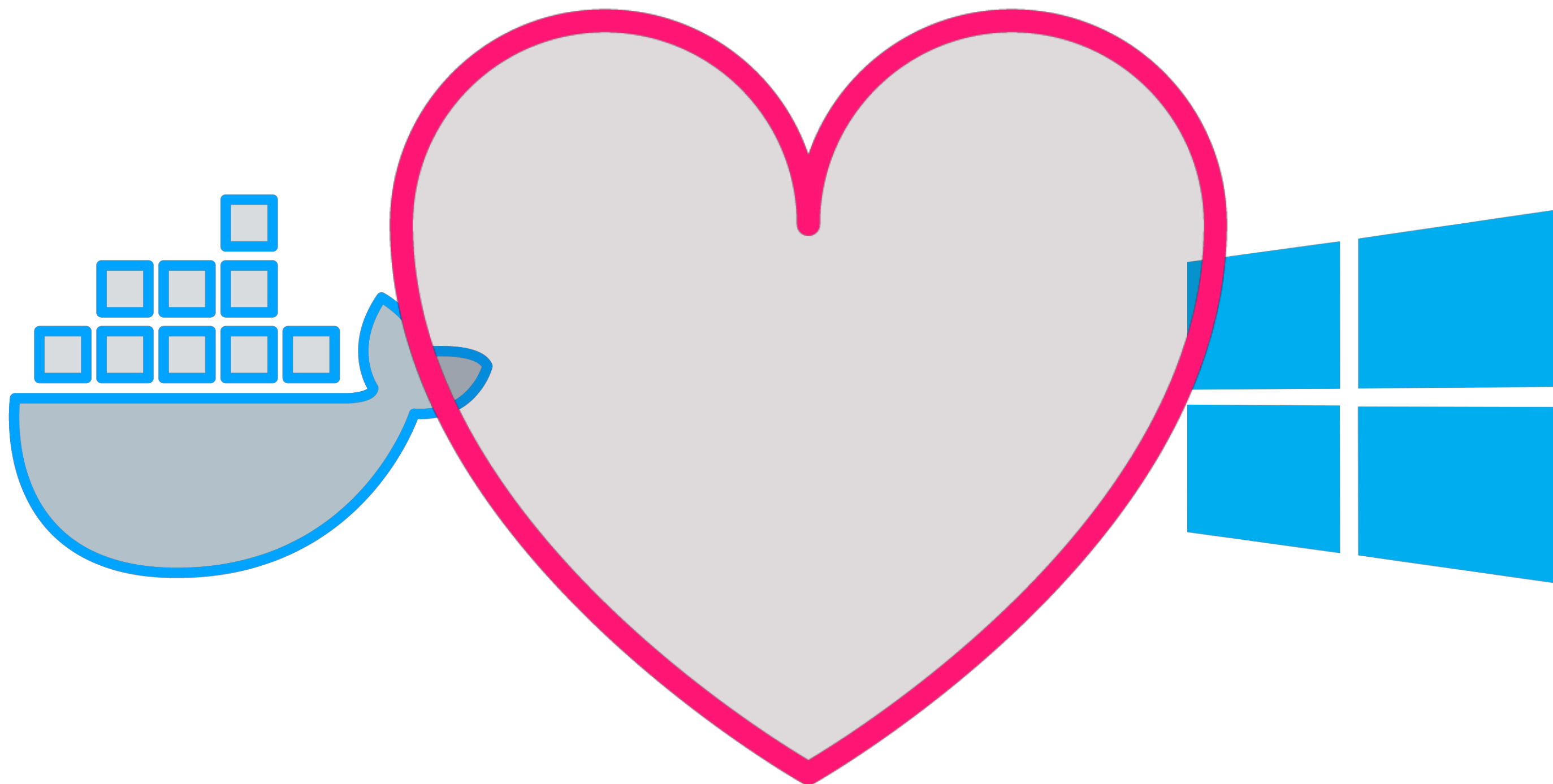
OPEN **CONTAINER**
INITIATIVE









Up Next:

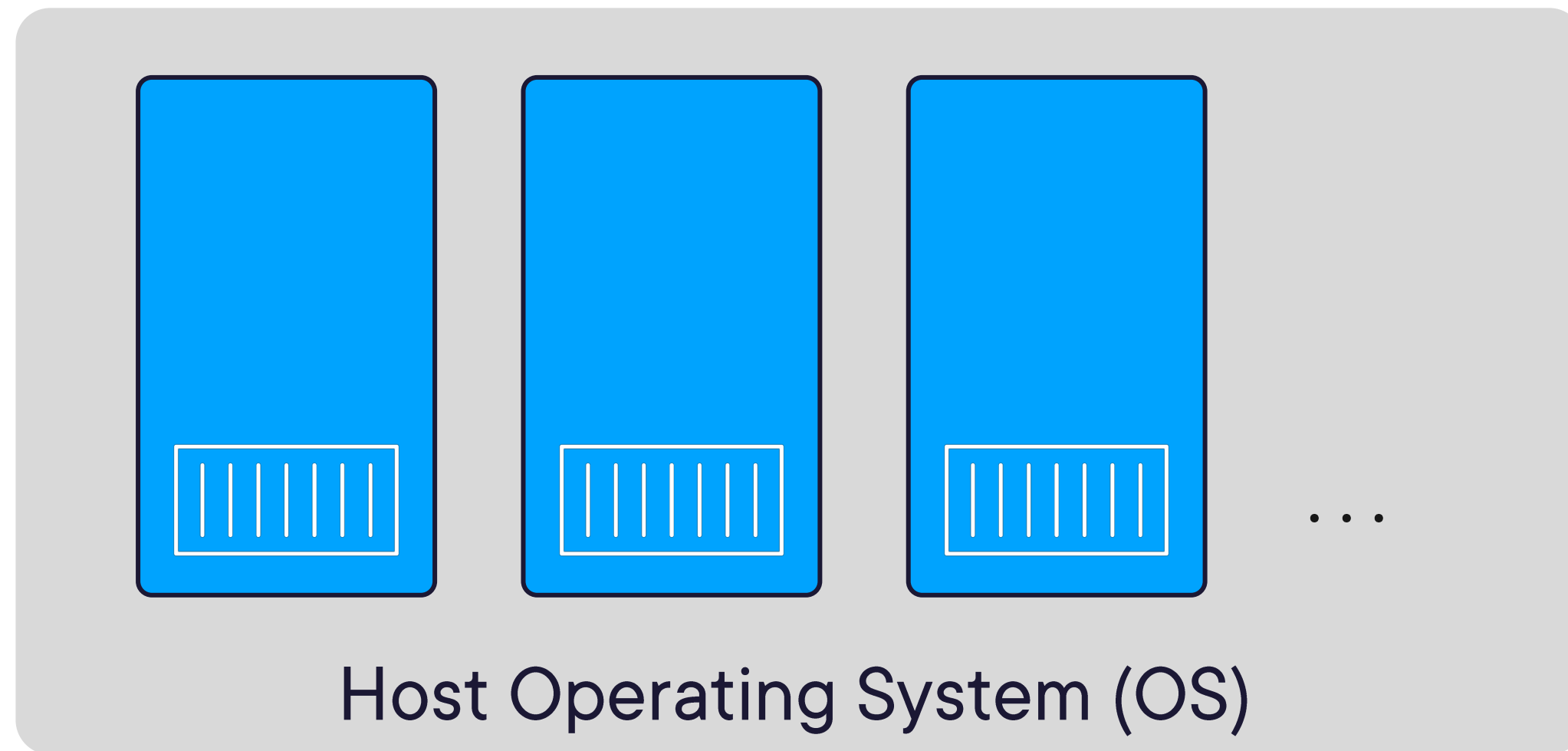
Containers on Windows

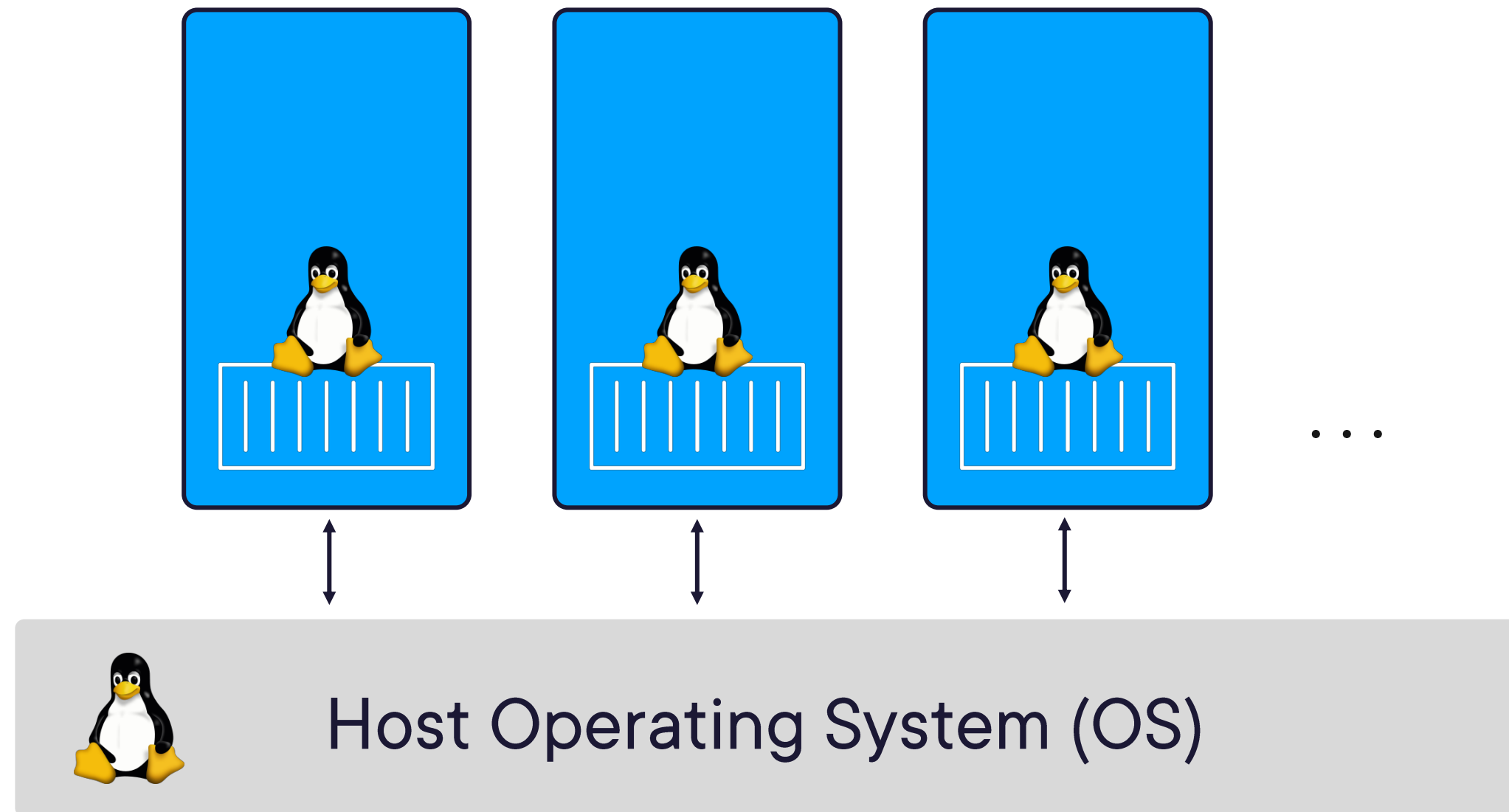


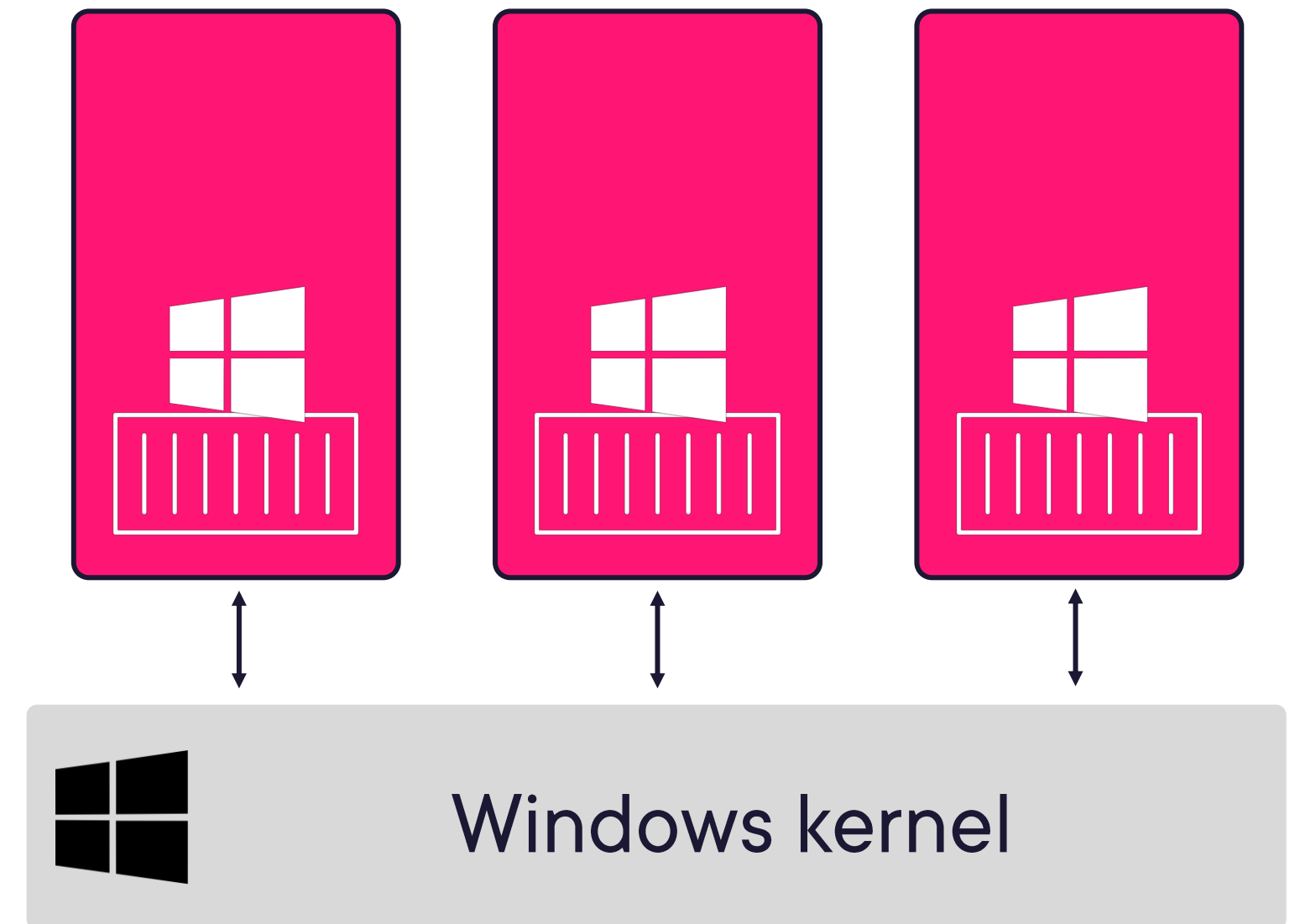
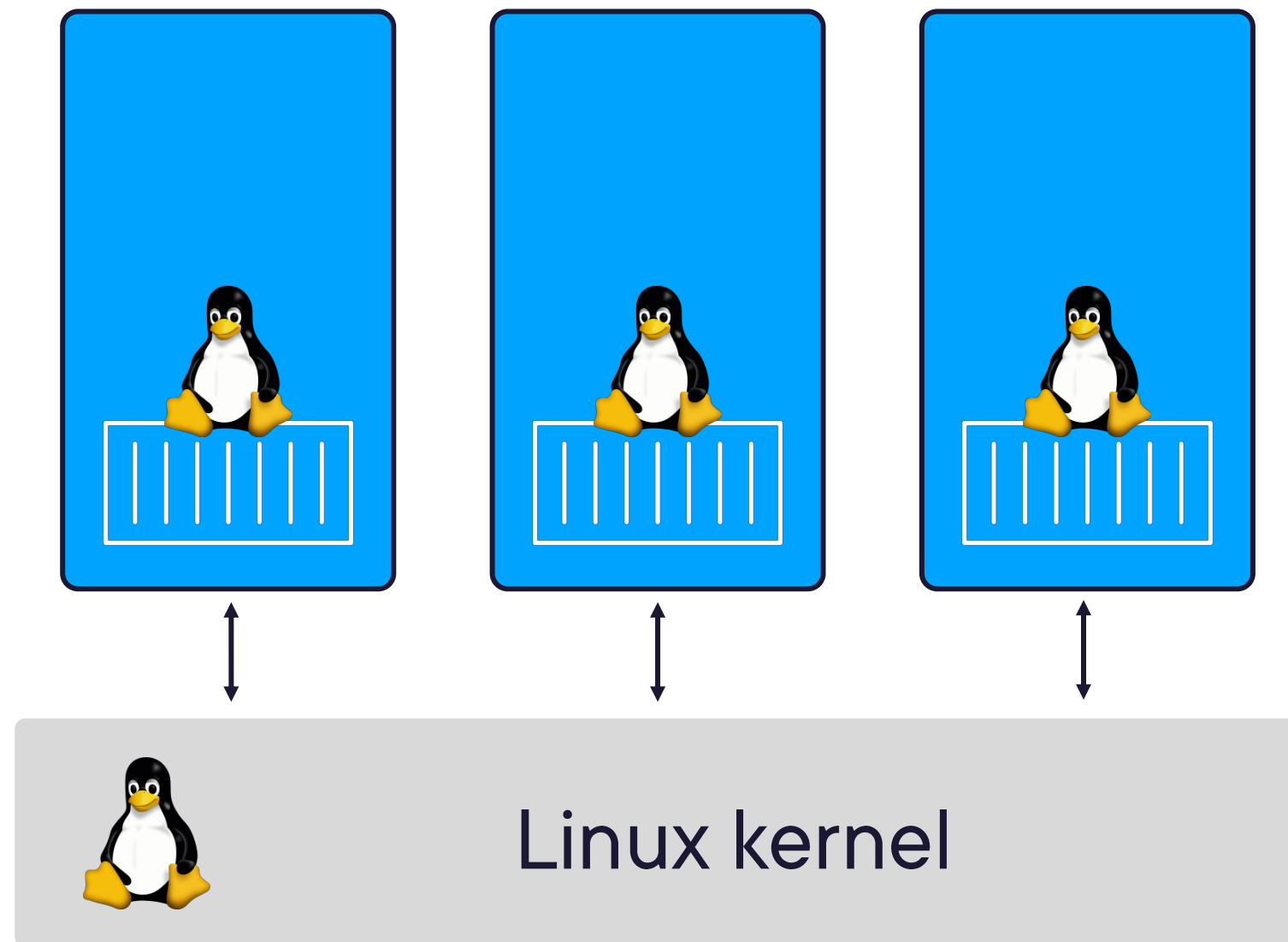


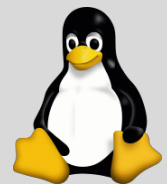
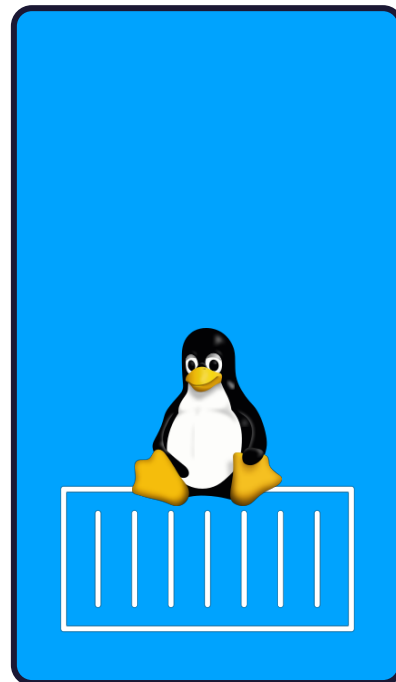
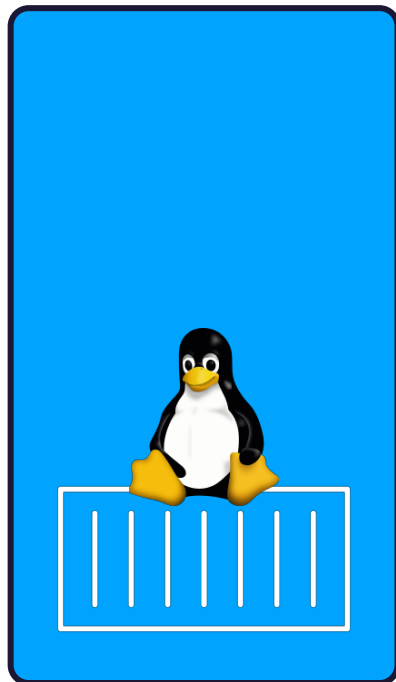
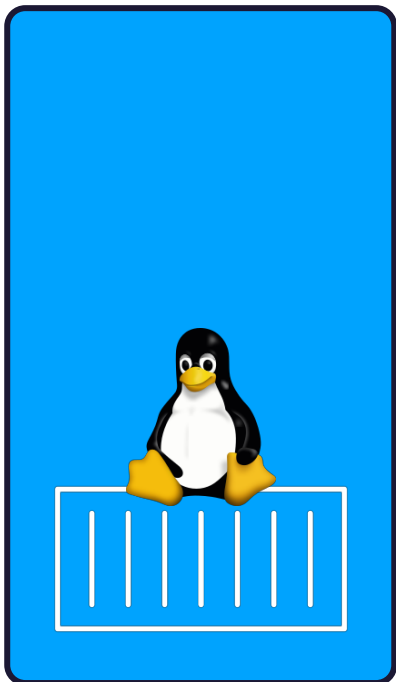
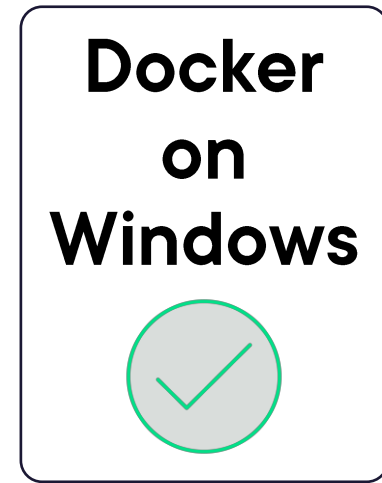
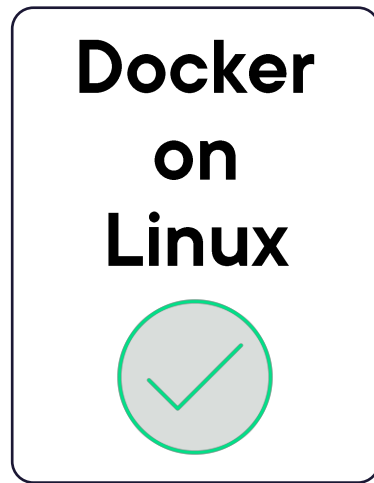
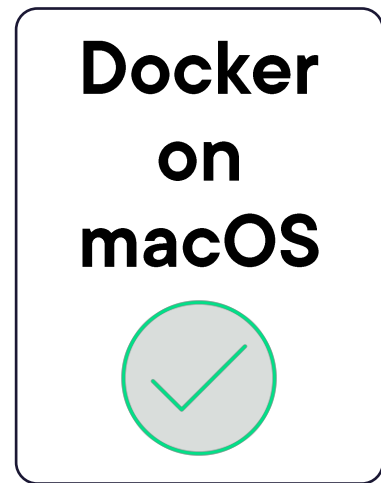
	Docker on macOS	Docker on Linux	Docker on Windows
Linux containers			
Windows containers			



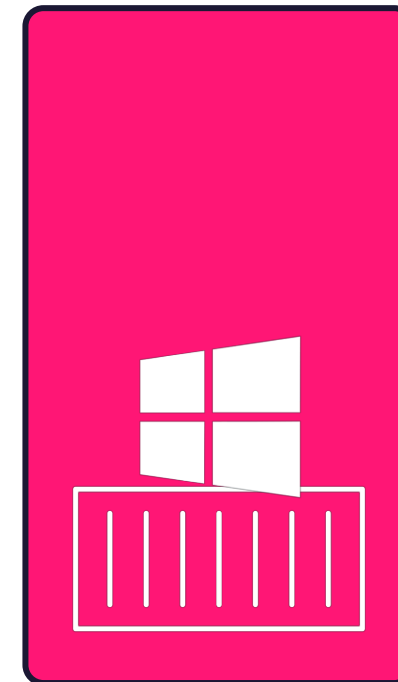
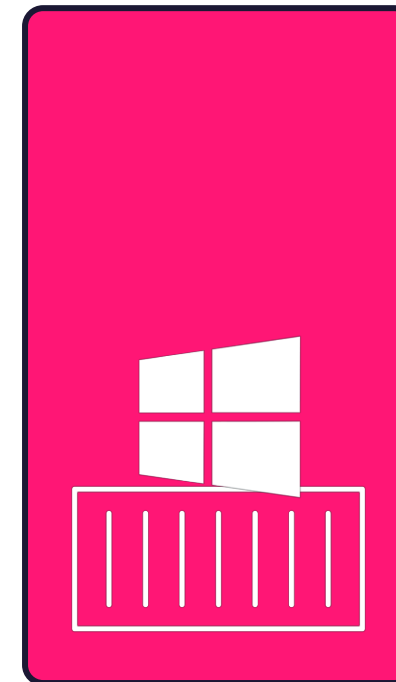
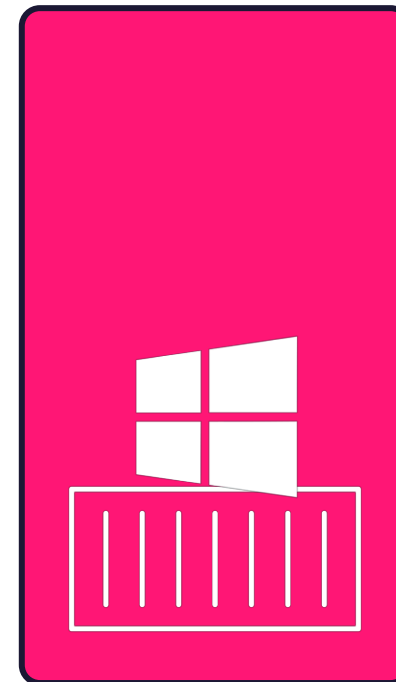
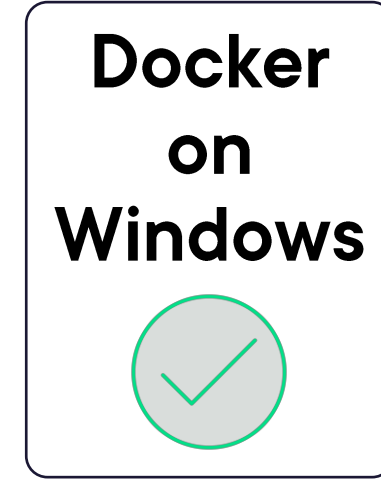








Linux kernel



Windows kernel





Docker Desktop on Windows

