Mindtree

Welcome to possible

Docker Training V0.1

7th Dec, 2018

Agile | Digital | Enterprise Applications | Managed Services

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Virtualization

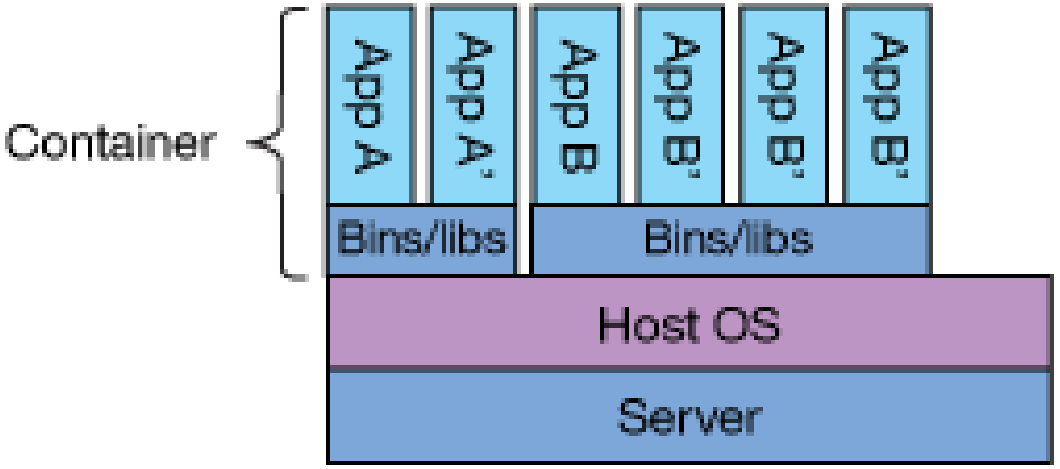
Traditional Server Architecture

Virtualized Server Architecture

What is Container

Containers are isolated, but share OS and, where appropriate, bins/libraries

...faster, less overhead

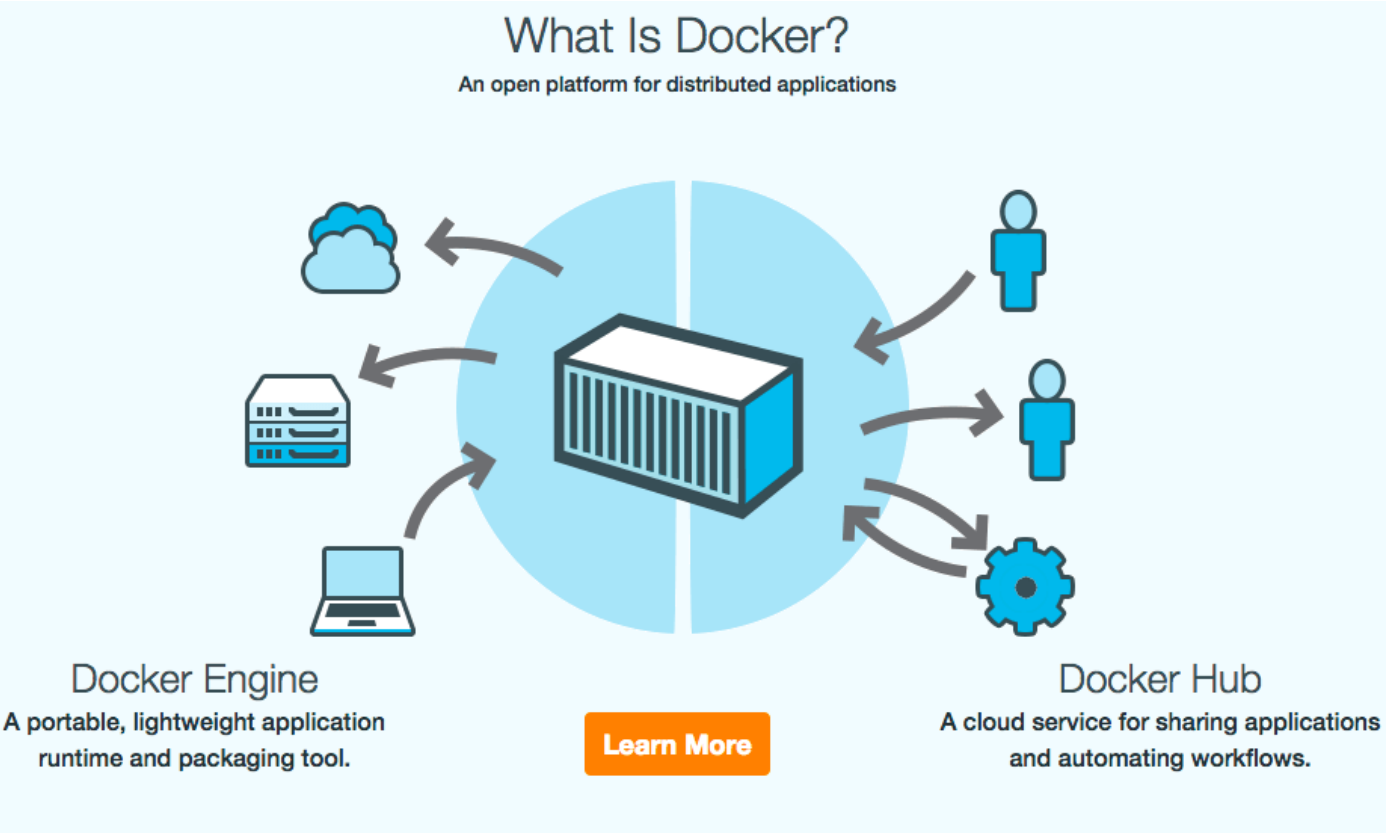


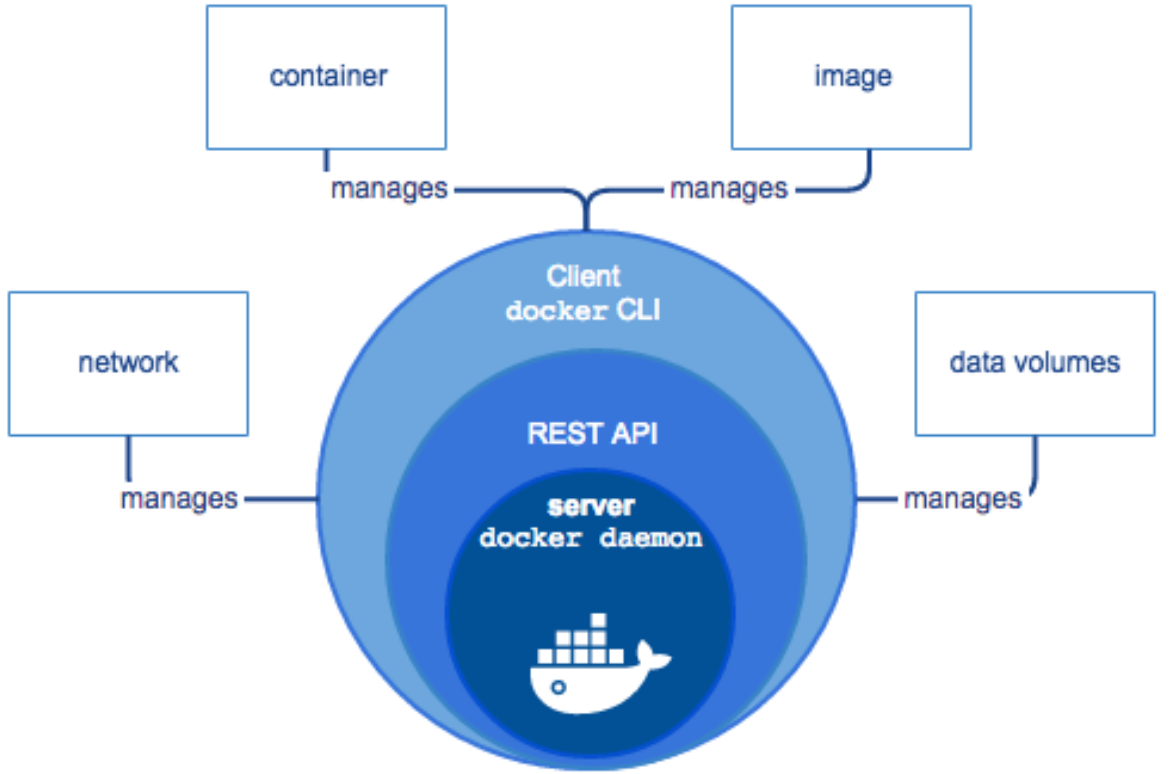
What is a container?

What is a container?

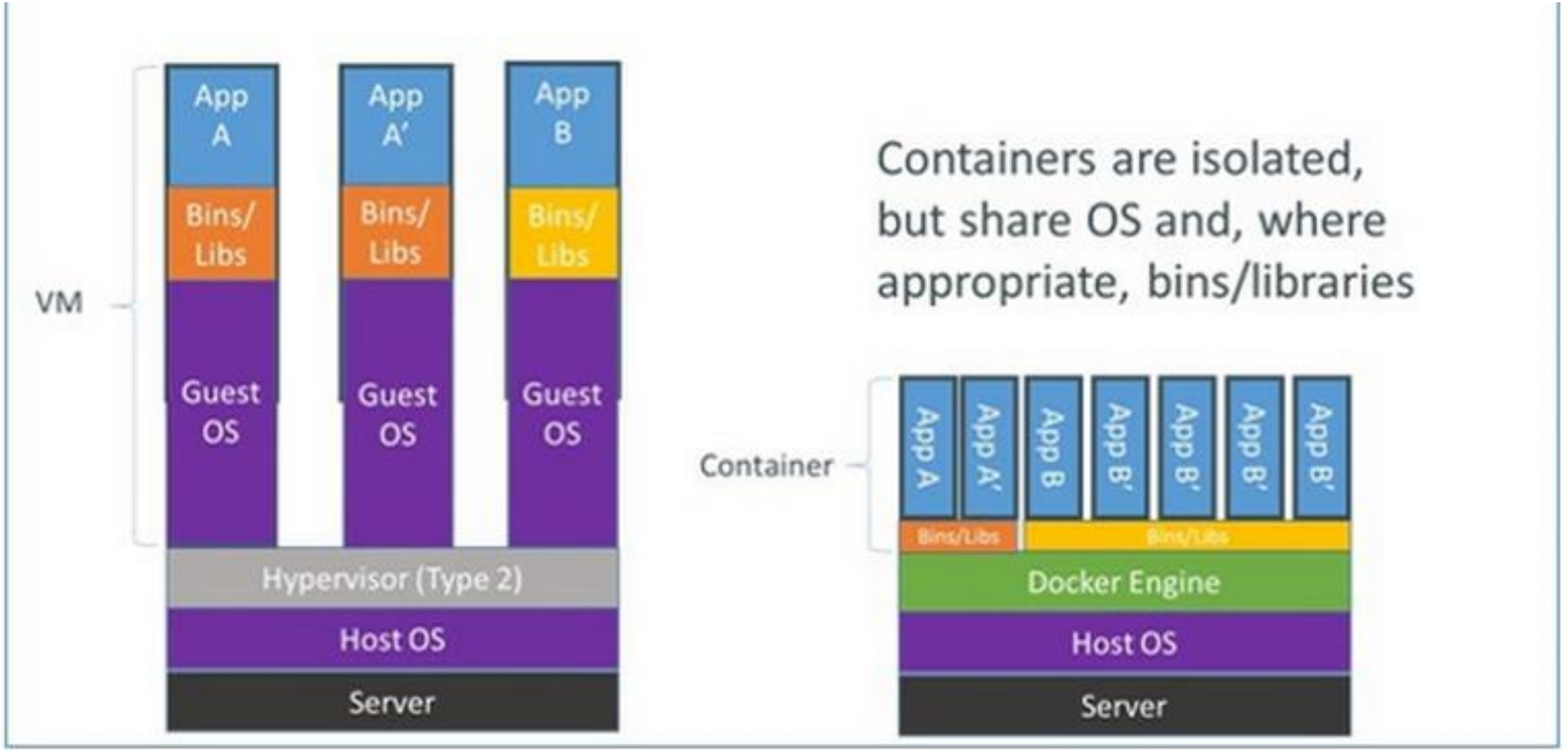
- Lightweight Linux environment
- Hermetically sealed, deployable application
- Introspectable, runnable artifact
- Recently popularized by Docker

What is Docker ?

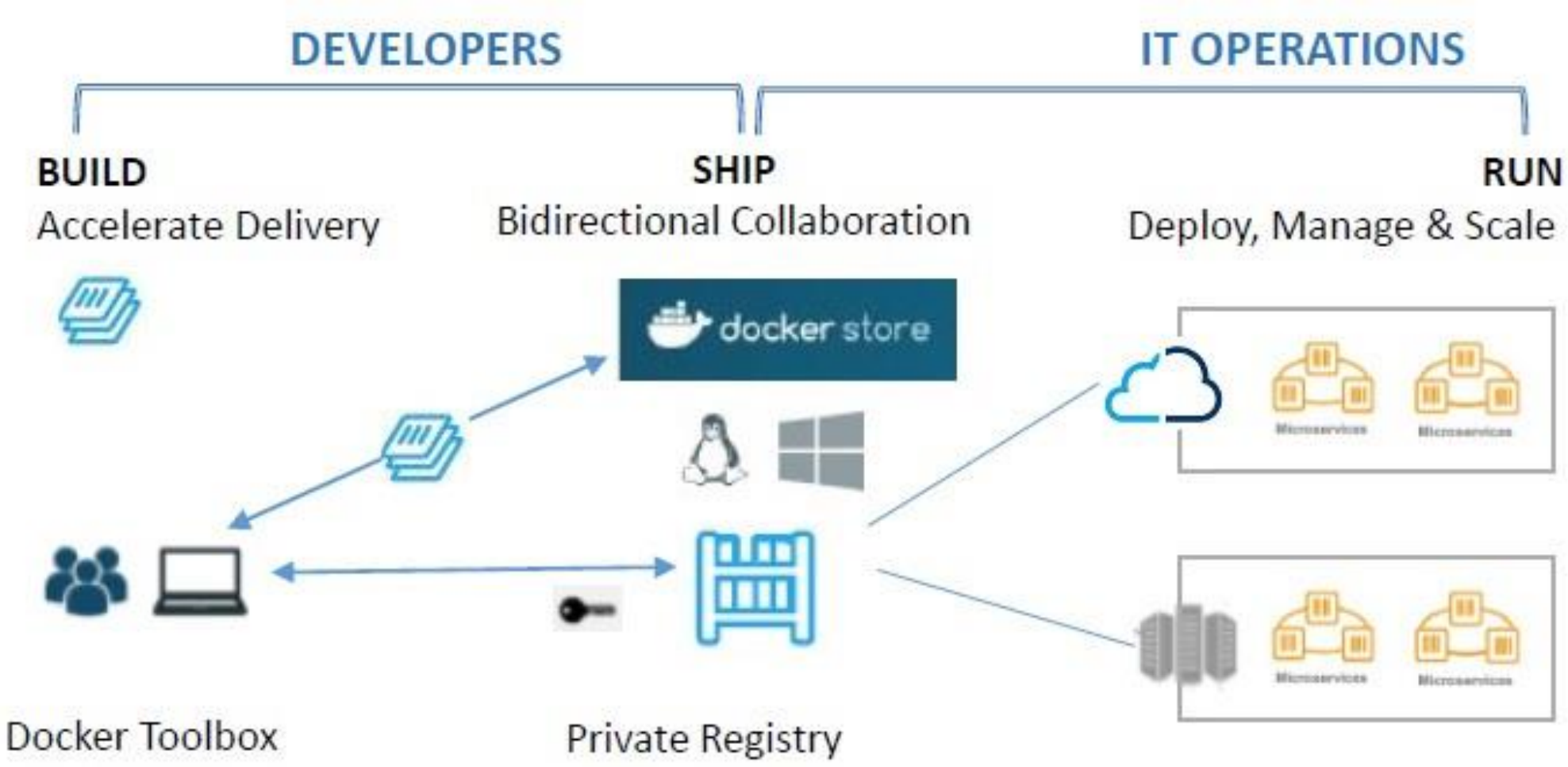




Container Vs VM

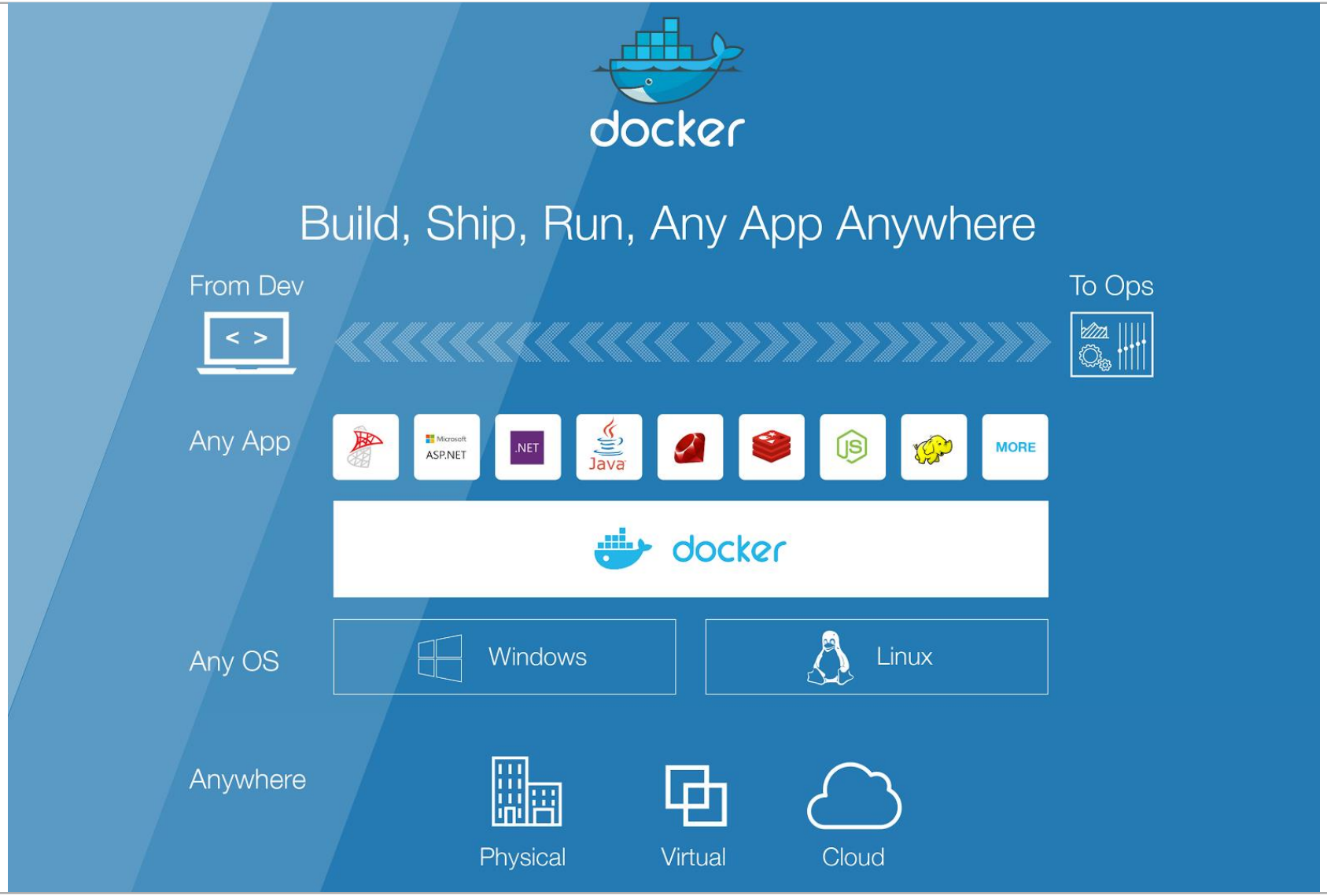


Why we need docker ?



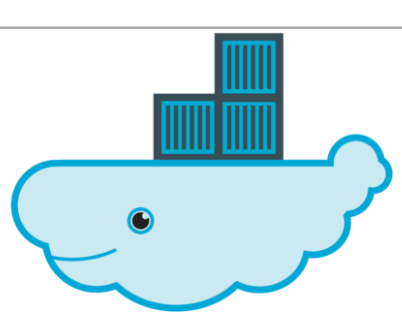
Frontend GCS

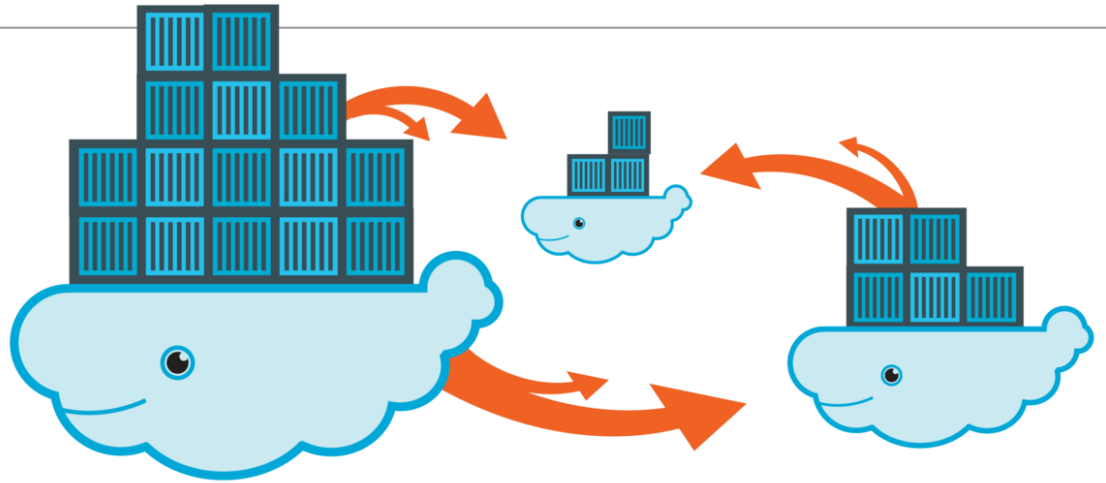
Build for any & run anywhere



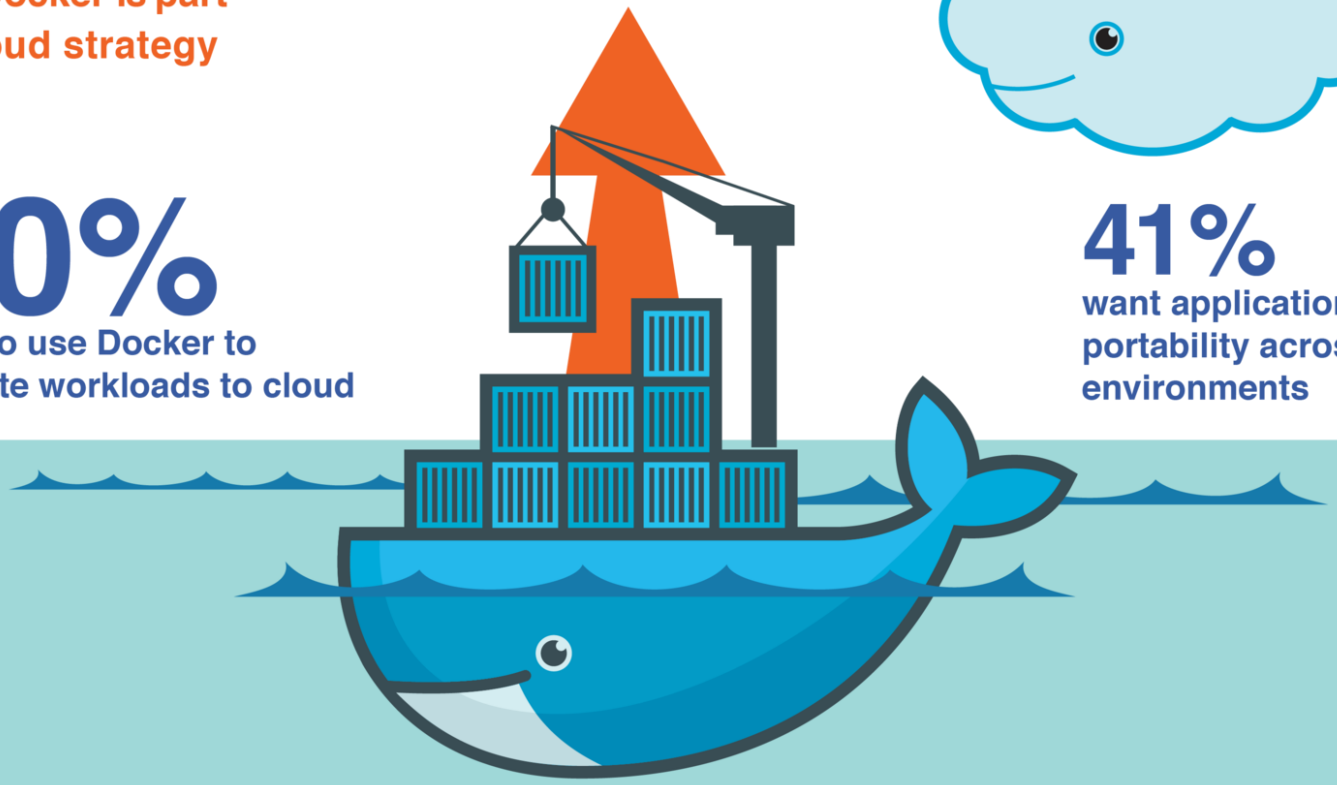
What Industry say it about ?

80%
say Docker is part of cloud strategy





60%
plan to use Docker to migrate workloads to cloud



41%
want application portability across environments

35+%
want to avoid cloud vendor lock-in

docker

Frontend GCS

Where I start

- Decide host image (OS Stack) on which you want to host your application or bring your own image.
- You can build your own image by using existing images referred as base Images. As part of this build process you can bake in your code & configurations.
- Using an Image you can run your container.
- You can ship your image to Remote Repository like Docker Hub or Azure Container Registry(Private Registry).
- On server/host you can pull this image & run it as your container.

Now Let’s Code

First Few Commands

Commands	Description
docker build -t friendlyhello .	Create image using this directory's Dockerfile
docker run -p 4000:80 friendlyhello	Run "friendlyname" mapping port 4000 to 80
docker run -d -p 4000:80 friendlyhello	# Same thing, but in detached mode
docker container ls	List all running containers
docker container ls -a	List all containers, even those not running
docker container stop <hash>	Gracefully stop the specified container
docker container kill <hash>	Force shutdown of the specified container
docker container rm <hash>	Remove specified container from this machine
docker container rm $(docker container ls -a -q)	Remove all containers
docker image ls -a	List all images on this machine
docker image rm <image id>	Remove specified image from this machine
docker image rm $(docker image ls -a -q)	Remove all images from this machine
docker login	# Log in this CLI session using your Docker credentials
docker tag <image> username/repository:tag	Tag <image> for upload to registry
docker push username/repository:tag	Upload tagged image to registry
docker run username/repository:tag	Run image from a registry
docker exec -it <ContainerName> /bin/bash	Execute a bash shell to enter into it

Welcome to possible

Thank You