

docker

SHUO ZHAO

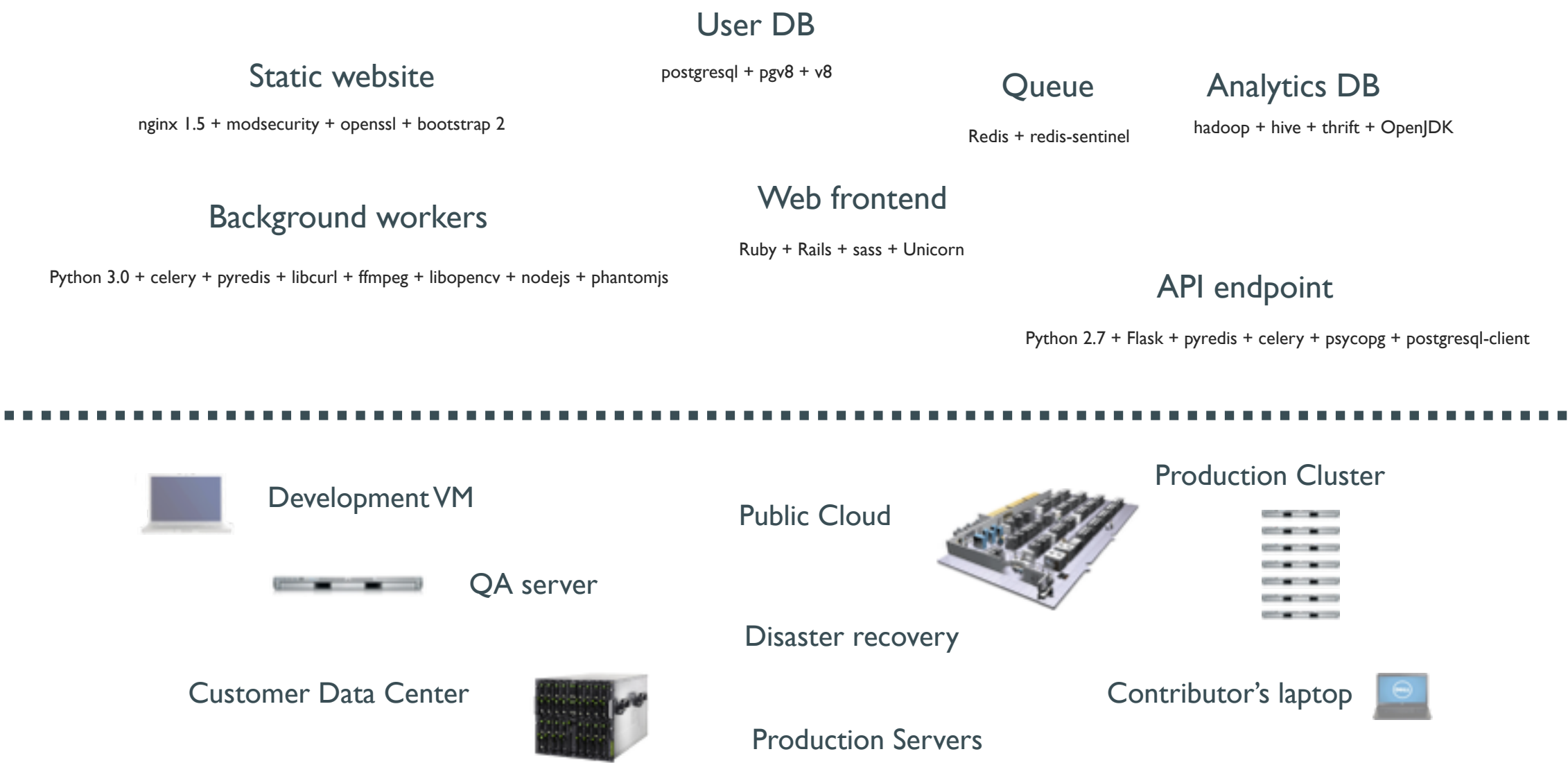
INTRODUCTION TO DOCKER

Dependency hell




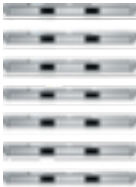



Dependency hell is a colloquial term for the frustration of some software users who have installed software packages which have dependencies on specific versions of other software packages.

—— wikipedia

Dependency hell
















Dependency hell

Static website	?	?	?	?	?	?	?
Web frontend	?	?	?	?	?	?	?
Background workers	?	?	?	?	?	?	?
User DB	?	?	?	?	?	?	?
Analytics DB	?	?	?	?	?	?	?
Queue	?	?	?	?	?	?	?
	Develop ment VM	QA Server	Single Prod Server	Onsite Cluster	Public Cloud	Contribu tor's laptop	Custome r Servers
							

Dependency hell: Delivery System



Dependency hell: Delivery System

	?	?	?	?	?	?	?
	?	?	?	?	?	?	?
	?	?	?	?	?	?	?
	?	?	?	?	?	?	?
	?	?	?	?	?	?	?
	?	?	?	?	?	?	?
							

Container!

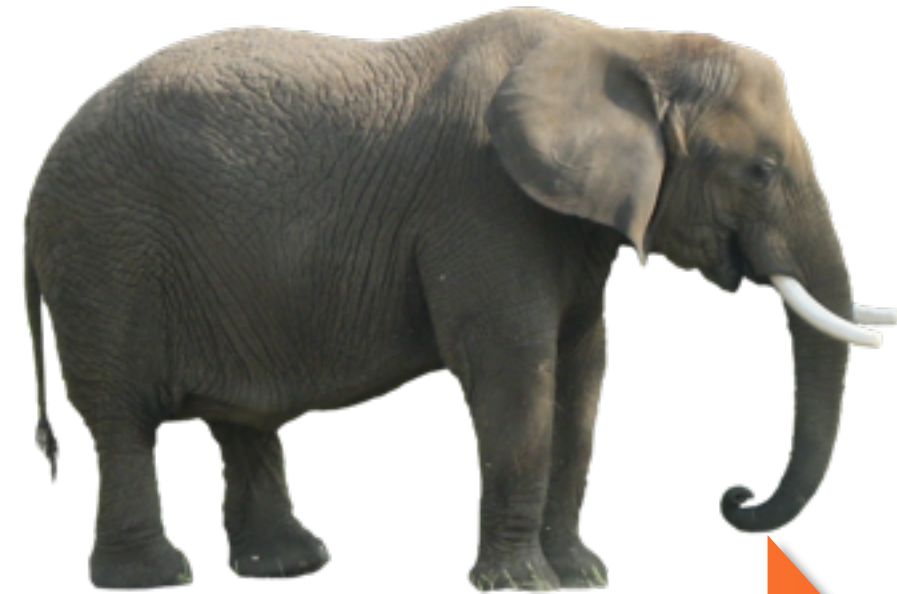


standard, consistent way of shipping just about anything.

CONTAINER!

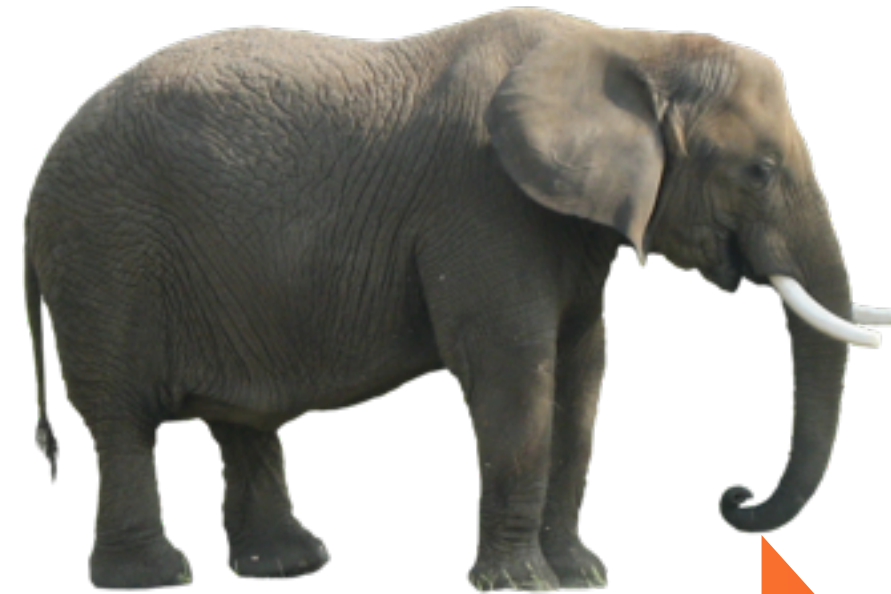
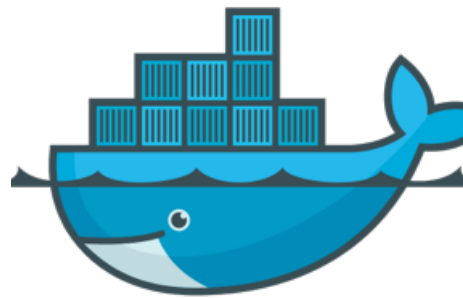


?















































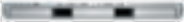
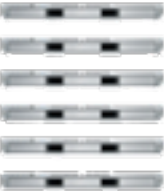



WHY WE CARE

CONTAINER!



WHY WE NEED DOCKER

LIFE SAVER

Static website							
Web frontend							
Background workers							
User DB							
Analytics DB							
Queue							
	Development VM	QA Server	Single Prod Server	Onsite Cluster	Public Cloud	Contributor's laptop	Customer Servers
							

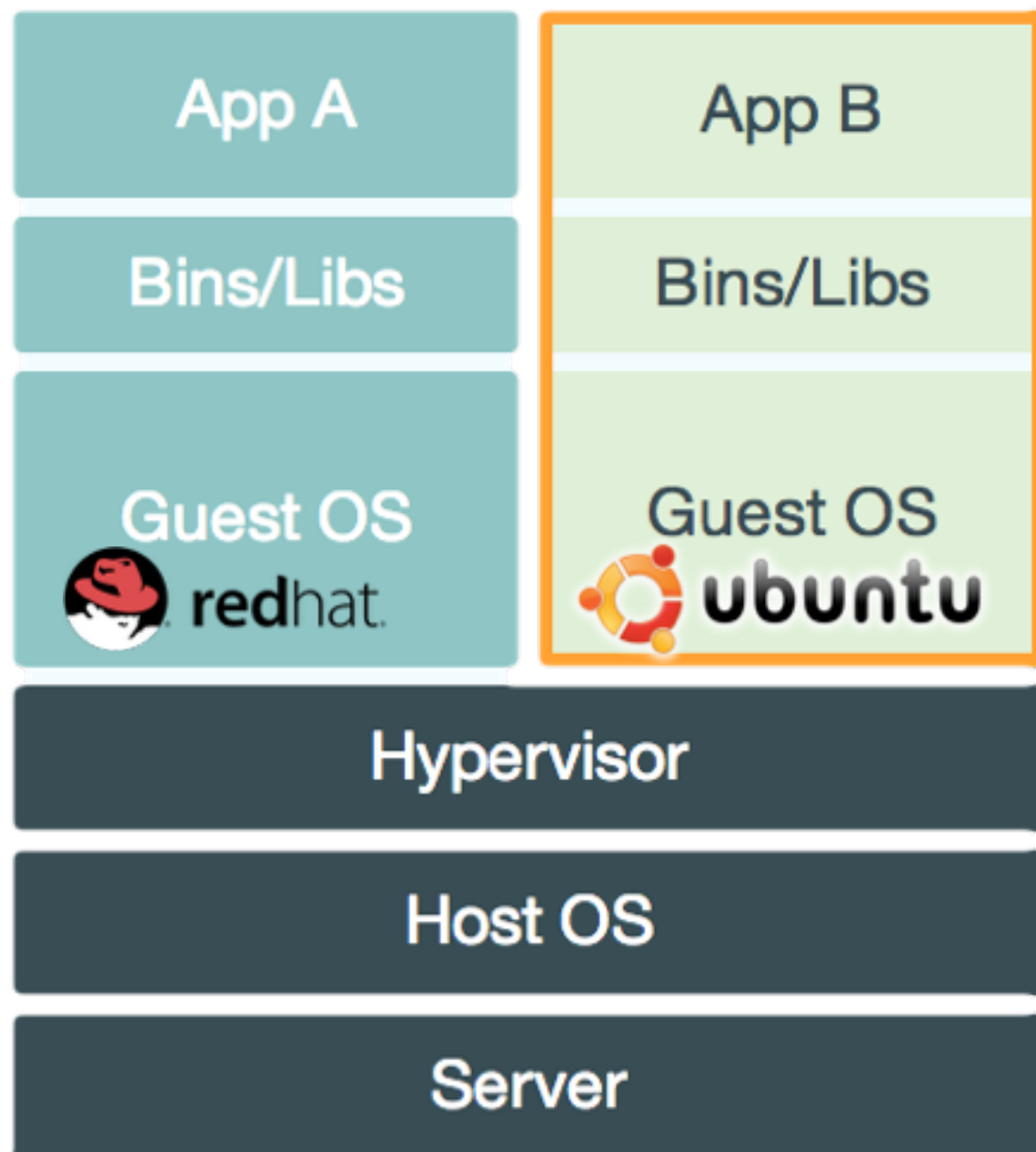
WHAT IS DOCKER

WHAT IS DOCKER

an open source project to pack, ship and run any application as a lightweight container.

WHAT IS DOCKER

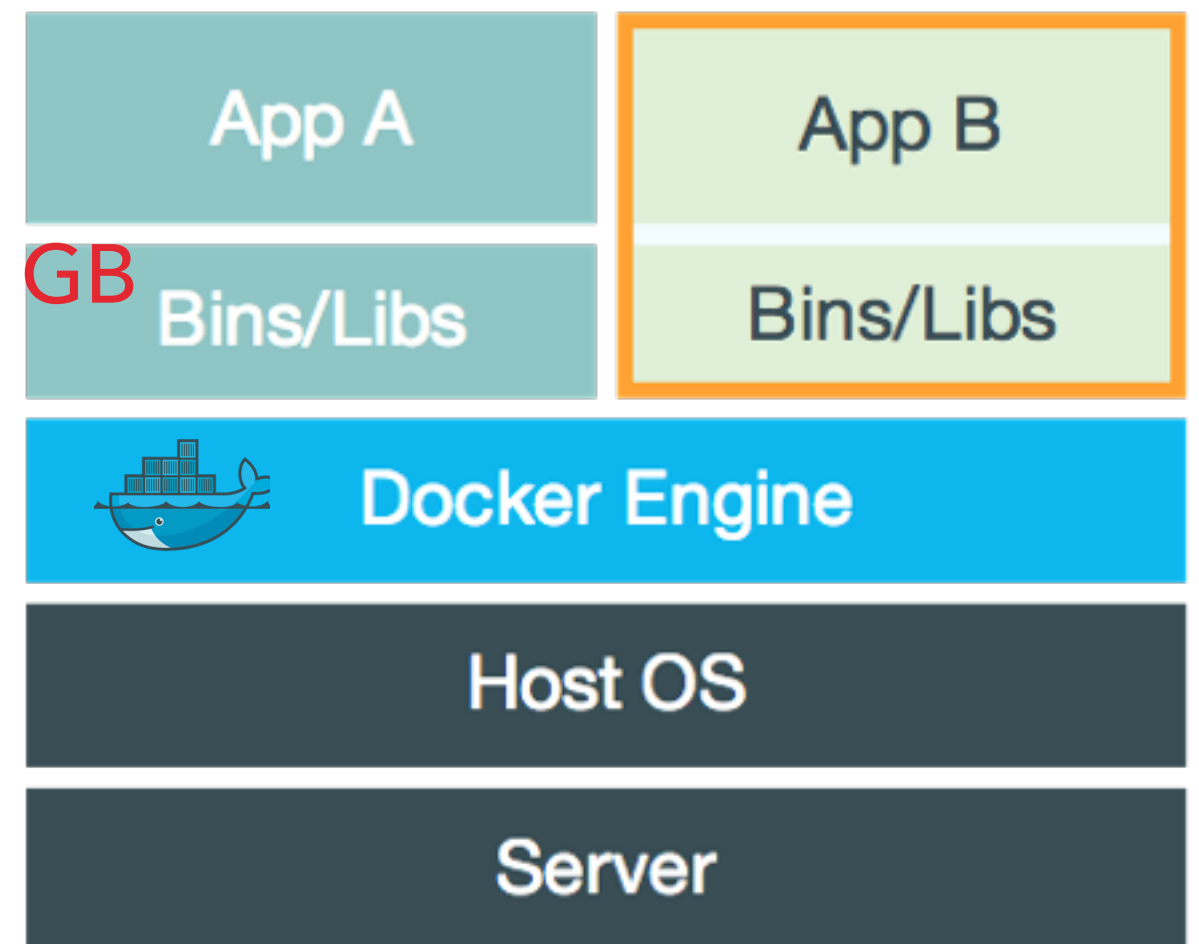
Virtual Machine



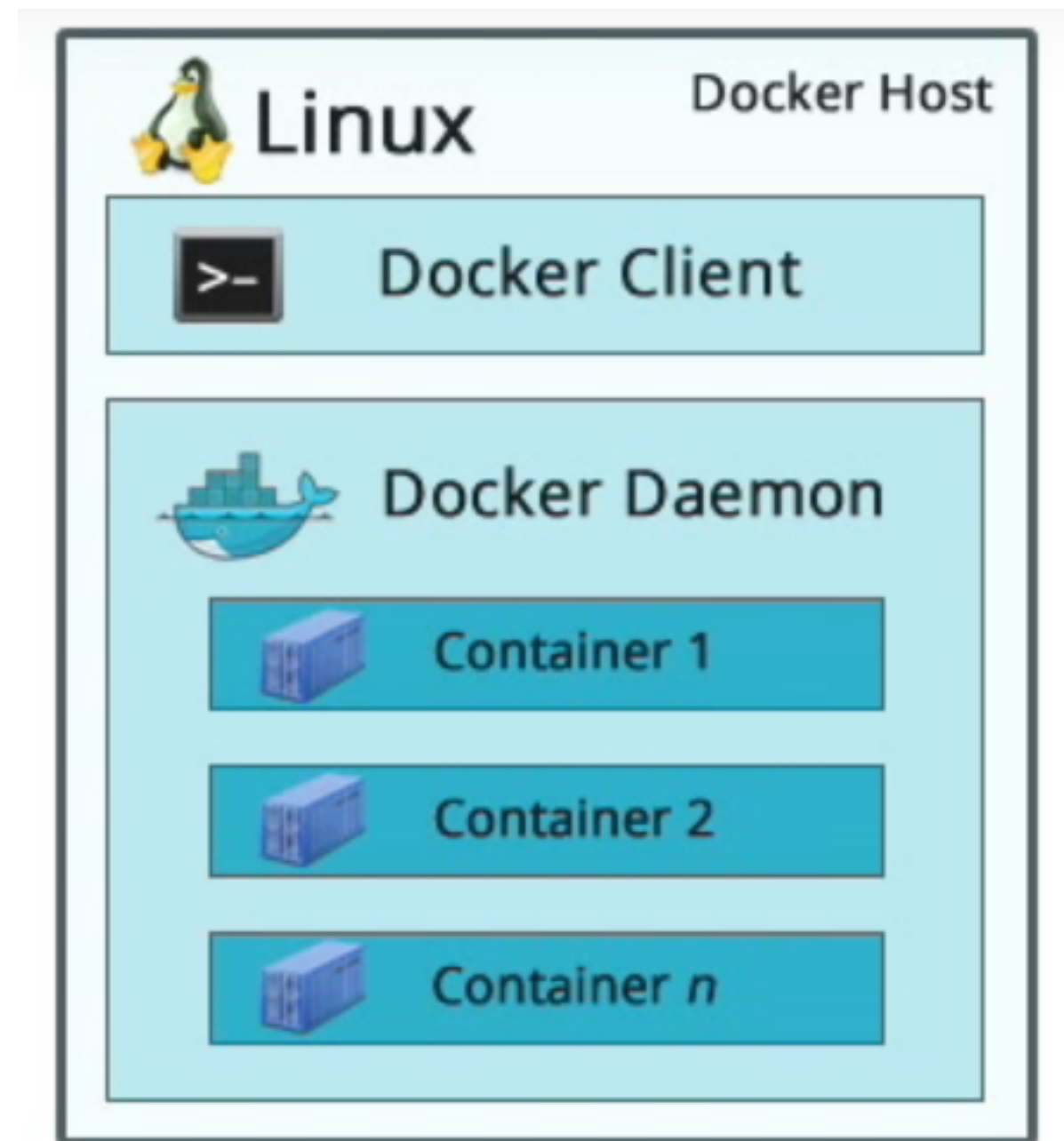
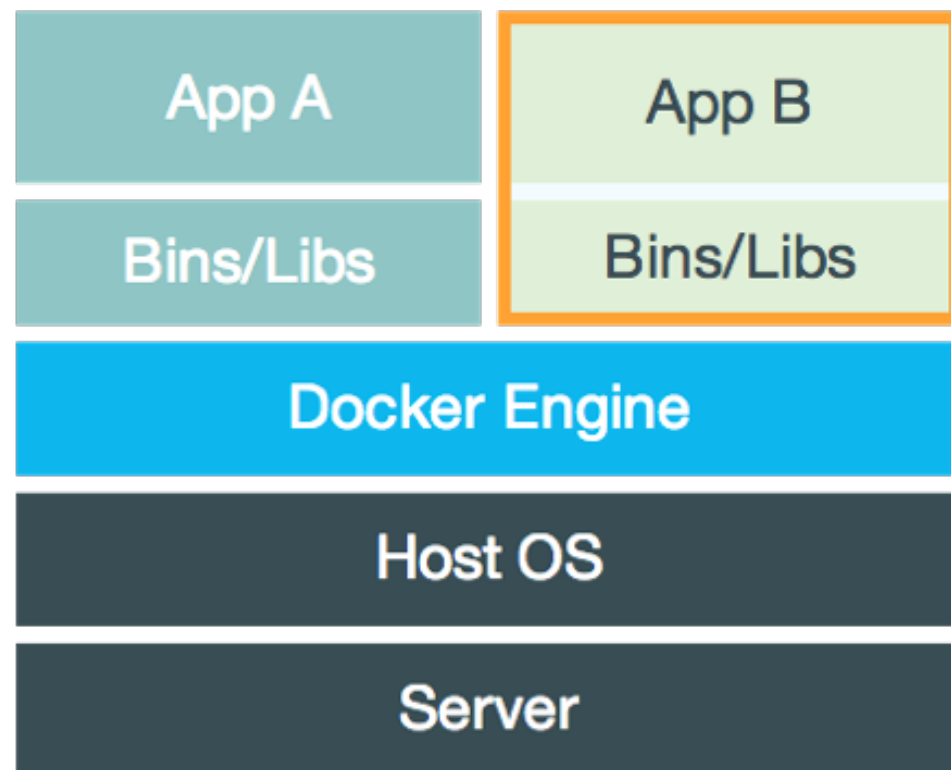
~10 MB

~10 GB

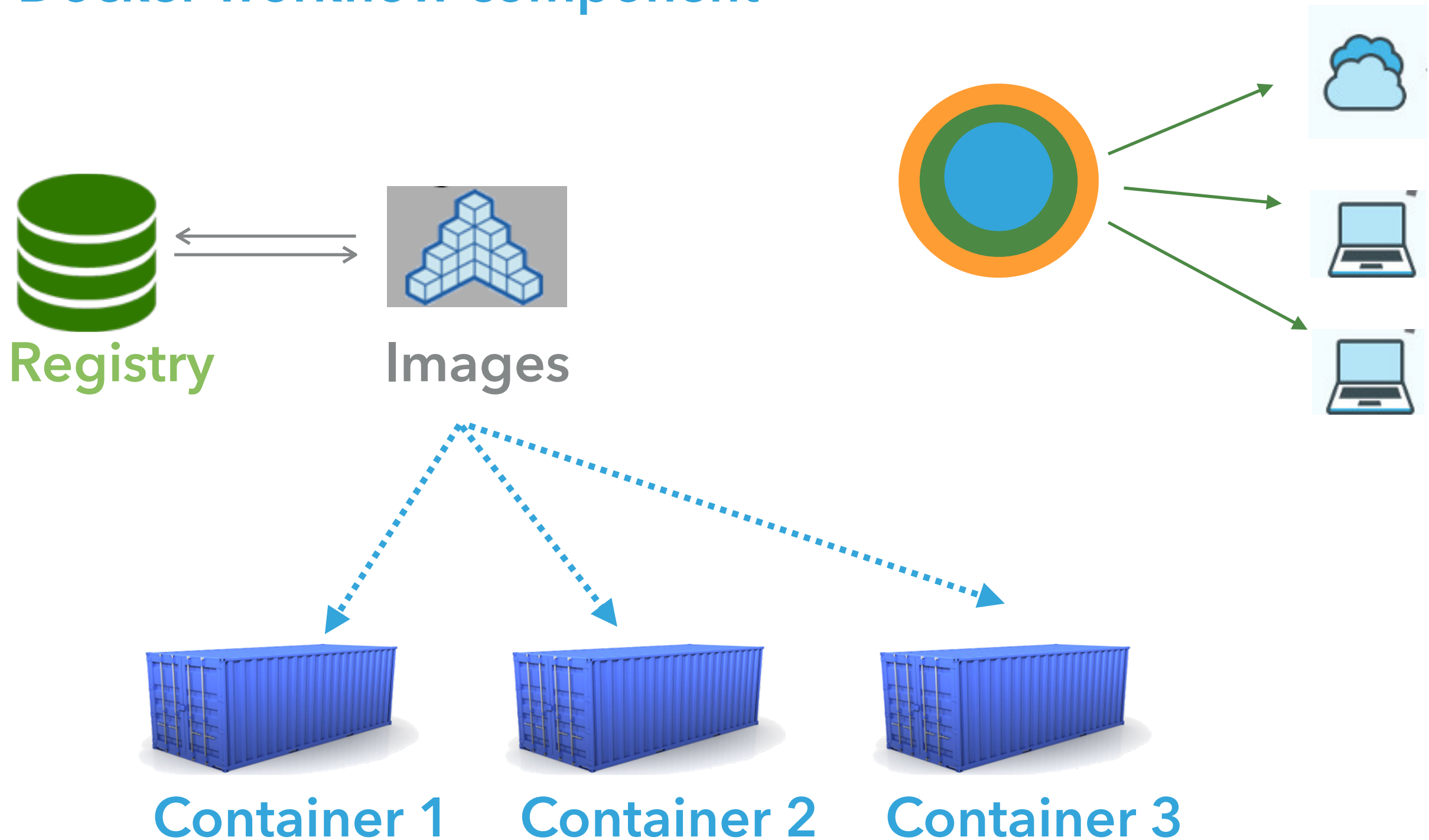
Docker Container



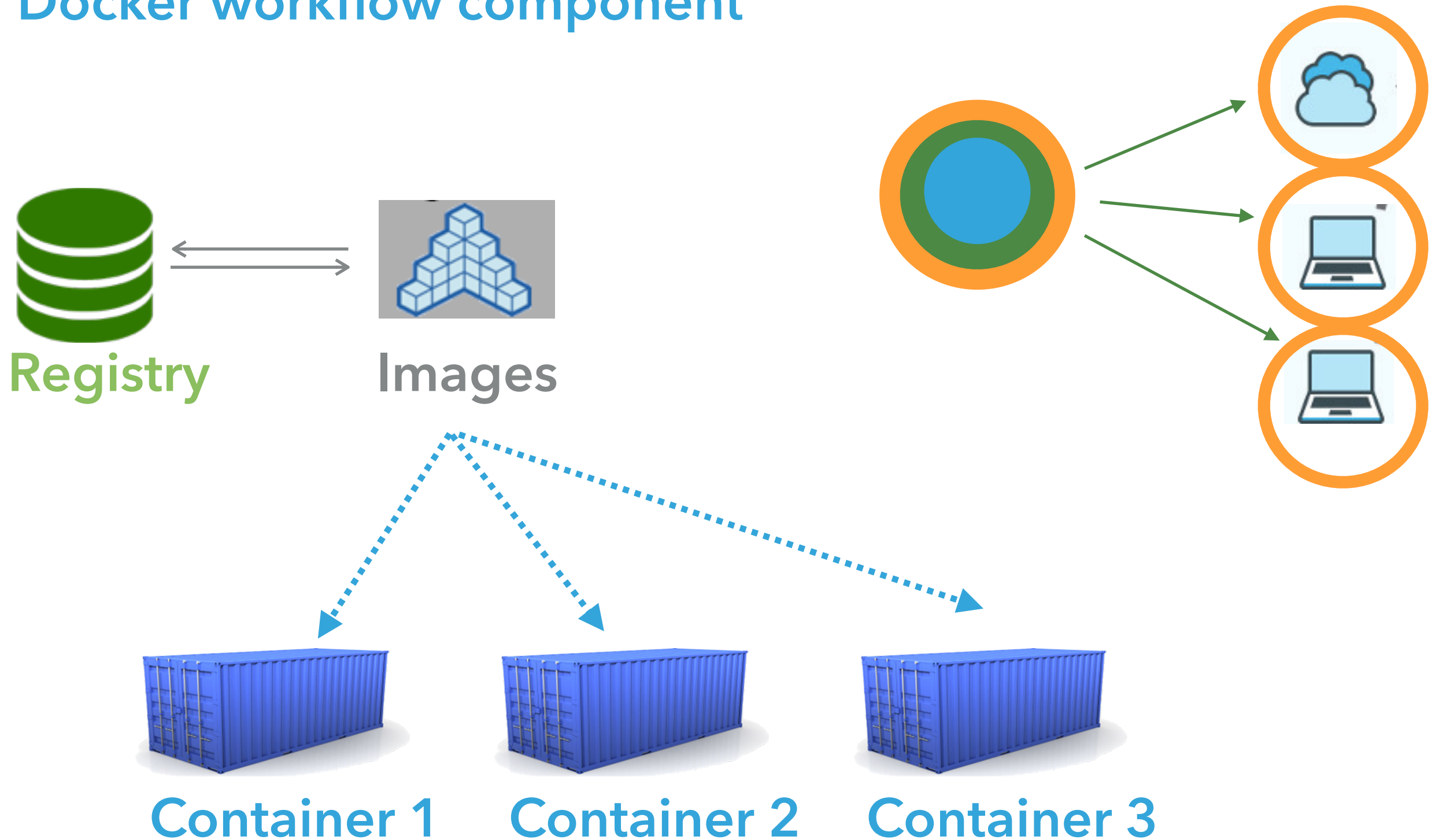
DOCKER CORE COMPONENT



Docker workflow component



Docker workflow component



DOCKER

Faster: CPU instructions are executed natively

Lightweight: Containers share operating system and some libraries

Portable: As portable as virtual machine

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THANK YOU!