














Container Fundamentals

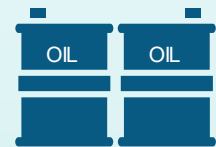
Shipping Challenges

Goods to be transported		?	<ul style="list-style-type: none">Which transport should we use to transport the goods?					
		?	<ul style="list-style-type: none">Are the workers skilled/trained enough to handle the goods?					
		?	The process of shipping the stuff is very tightly coupled to the goods being shipped,					
		?	In other words, the workers must be skilled/trained enough to handle the products.					
		?	For Example, Shipping an oil barrel					
		?	<ul style="list-style-type: none">We ship Oil Barrels via various transports such as trains, and shipsDuring the shipment several loading and unloading of oil barrel requires various skilled workers					
		?	?	?	?	?	?	?
Means of transport								

Shipping Solution












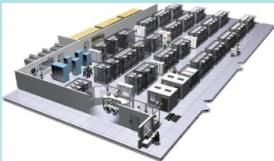


Shipping Solution (Contd.)



What's inside the container doesn't matter



Challenges with System/Software Configurations

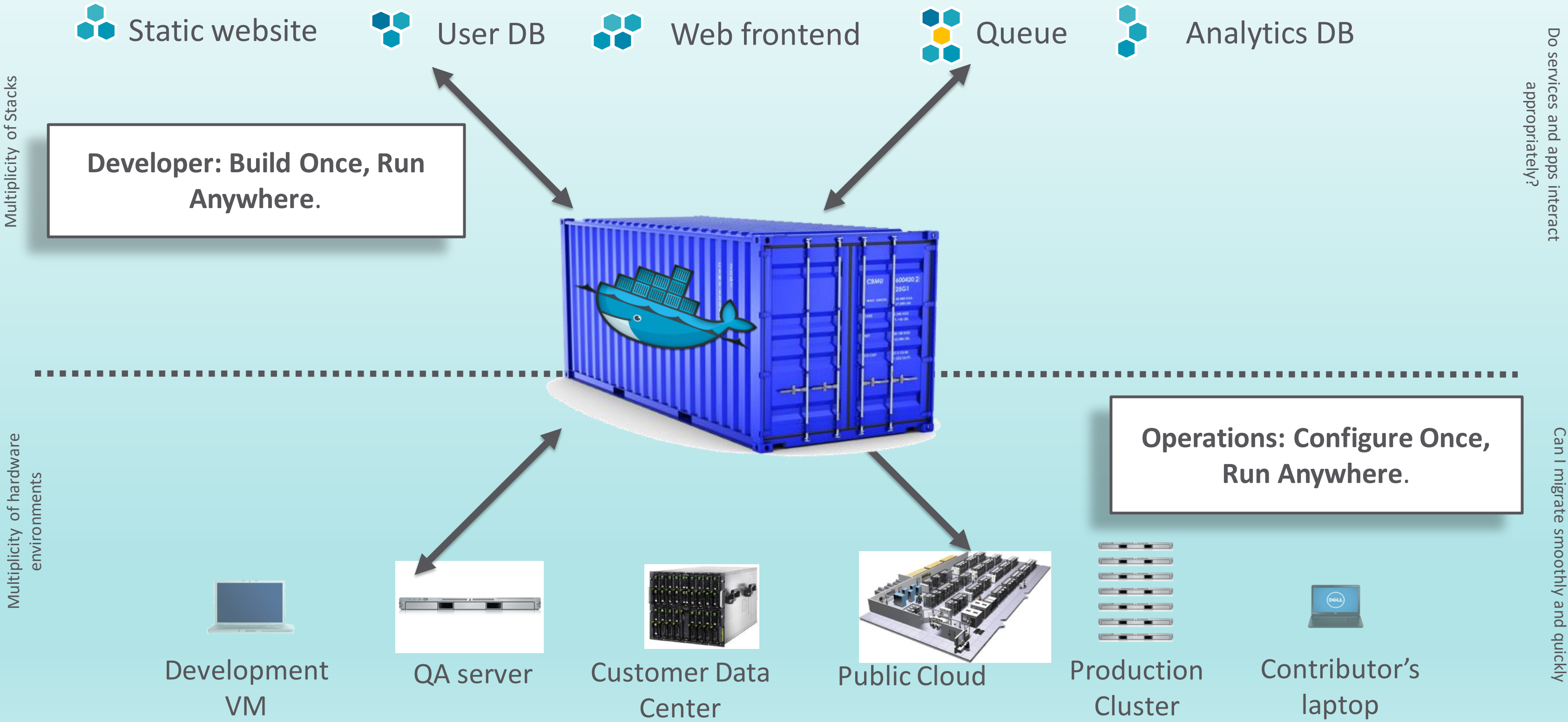
<div>Software / Services</div> <div>Machine / System</div>		Static Website	?	?	?	?	?	?	?
		Web frontend	?	?	?	?	?	?	?
		Background workers	?	<ul style="list-style-type: none">Which system should be used to run the software/service ?Are the employees skilled/trained enough (as a programmer) to handle the service/software properly with required configuration?					
		User DB	?						
		Analytics DB	?	?	?	?	?	?	?
		Queue	?	?	?	?	?	?	?
			Development VM	QA Server	Single Prod Server	Onsite Cluster	Public Cloud	Contributor's Laptop	
									

What is a Node?

Node is a fundamental requirement to run any application. It can be a physical or a virtual machine. It can be installed manually or created by cloud operating systems like OpenStack or Amazon EC2.



Docker – A shipping Container for node



What is Docker?

“BUILD, SHIP & RUN ANY SOFTWARE ANY WHERE”

- Docker is a tool designed to create, deploy, and run applications with ease by using containers
- It allows a developer packaging of an application with all of the requirements such as libraries and other dependencies, ship it all as one package
- It ensure that your application works seamlessly in any environment; be it Development, Test or Production



docker

Who uses Docker?

Developer: helps developer to focus only on building great software by automating the repetitive tasks of setting up and configuring development environment.

Sysadmin: helps sysadmin to streamline the software delivery, such as develop and deploy bug fixes, new features without any roadblock.

Enterprise: works in the cloud just as well as on premise; supports both traditional and microservices architectures.

