Docker Enterprise in DevOps Context

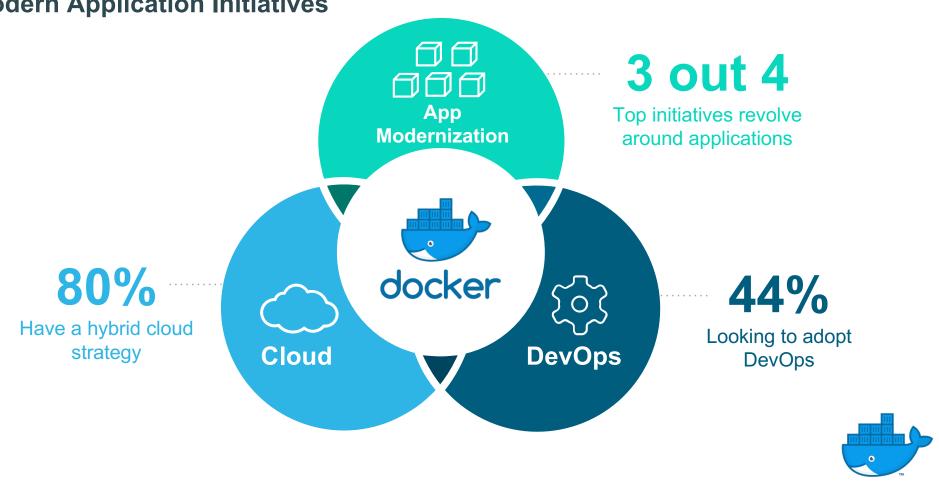
Andreas Lambrecht Technical Solutions Engineer



Agenda

- Docker Momentum
- Docker Enterprise Overview
- CICD / Software Secure Supply Chain Demo
- Q&A

Modern Application Initiatives



Evolution of the Docker Platform

A project spun out of a PaaS

2013

Developer Community

Need to experiment and innovate with leading edge tech At PyCon 2013 Solomon Hykes shows Docker to the public for the first time.



Source - https://www.youtube.com/watch?v=wW9CAH9nSLs



Evolution of the Docker Platform

Many purposes, users and infrastructure

Today

Developer Community

Need to experiment and innovate with leading edge tech

Ops Community

Need a predictable system to deploy and run apps

Enterprise

Run business critical apps at scale anywhere

Partner Ecosystem

Extend and add value to a platform with a shared path to monetization





Docker Momentum in the Last Year







So what is the point.....

- Lightweight

 Lower CPU, memory, storage util. Faster start, stop, scale.
- Higher Density
 Less infra, management, lower costs.
- Deployment Abstractions (via orchestration)

 Scaling, HA, health-checks, rolling upgrades, blue/green
- Application Descriptors
 Compose, k8s YAML, Helm
- Developer Experience
 Start entire application locally for development
- Traditional & Microservices & Serverless & IOT & ...
- Portability



The Docker Family Tree









Compose







Notary











Community Edition



- Docker4Windows
- Docker4Mac



Enterprise Edition

- Docker EE Engine
- Kubernetes / Swarm
- **Universal Control Plane**
- **Distributed Trusted** Registry

The Secret from Our 500+ Enterprise Customers

Sustainable improvement cannot come from Container **TECHNOLOGY** alone.

Sustainable improvement requires a Containerization STRATEGY...

Based on an enterprise-ready Container PLATFORM AND SERVICES.



Docker Enterprise Capabilities



Certification and Support

Integrated App and Cluster Management

Optimized Container Engine

Certified Contain	ers	Certified Plugins
Application Composition, Deployment and Reliability		
Policy Management	Secure Access and User Management	Application and Cluster Management
Image Scanning and Monitoring	Content Trust and Verification	Image Management
Security	Network	Volumes
Distributed State	Container Runtime	Orchestration
Certified Infrastructure		



Only Docker Enterprise Gives Global 2000 Customers the Following:



Choice

- Hybrid and multi-clouds
- Windows and Linux
- Traditional apps and microservices
- DevOps and existing ops processes



Security

- Safer apps
- Governance
- Chain of custody
- Threat mitigation



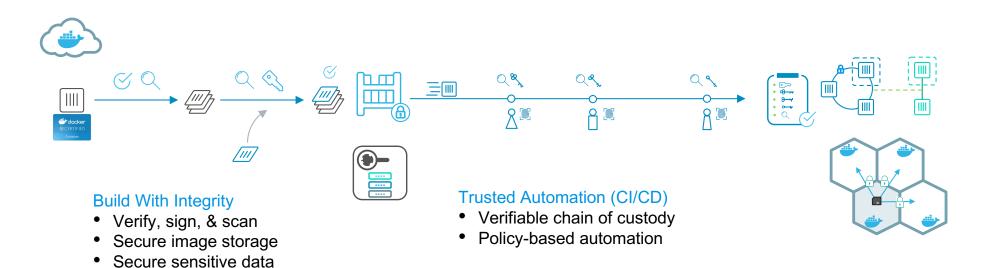
Agility

- Unified operations
- Rapid delivery and response
- Cost efficiency





Docker EE Secures the End-to-End Software Supply Chain for both Swarm and Kubernetes





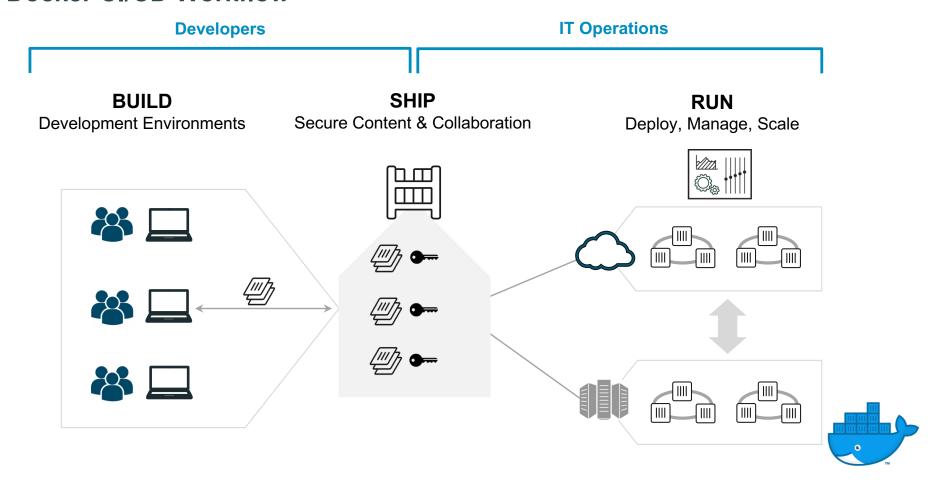
Run Safe

- Secure by default
- Security Zones
- Governance controls

Continuous Integration / Delivery Overview

- Continuous Integration (CI)
 - Build iteratively and test software automatically and regularly
 - Develop cohesive & defense software & innovate more rapidly
- Continuous Delivery (CD)
 - Make defined & automated releases or delivers into the target environment
- End to End automated CI/CD process reflects the maturity of an organization's development processes

The Docker CI/CD Workflow



The Docker Enterprise CI/CD Demo Workflow

BUILD SHIP
Development Environments Secure Content & Collaboration Deploy, Manage, Scale

- Dockerfile
- Jenkinsfile.build
- Git checkout
- Docker build & test & tag
 & push
- Scanning the image
- Promotion to SHIP stage
- Webhook to trigger SHIP pipeline

- Jenkinsfile.ship
- Docker pull & push
- Docker tag as signed
- Signed the image
- Use client-bundle
- Promotion to RUN stage
- Webhook to trigger RUN pipeline

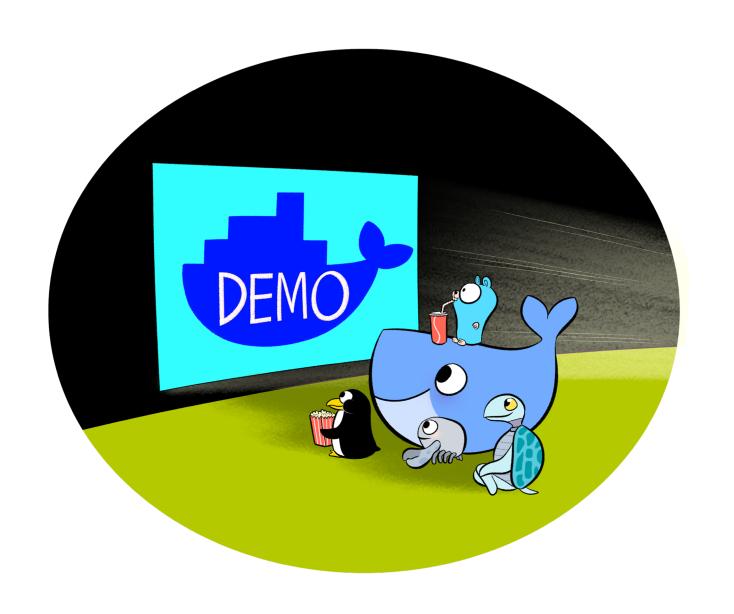
- Jenkinsfile.run
- Git checkout
- Use client-bundle
- Deploy app as a Stack to Docker Enterprise (using compose.yml file)
- Routing Mesh / Layer 7 loadbalancer

Demolab powered by



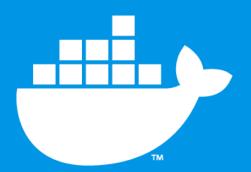






CHOISE

AGILITY



SECURITY

DEVOPS

THANK YOU:)

START TO INOVATE NOW

GET IN TOUCH: INNOVATE@DOCKER.COM