Docker Enterprise in DevOps Context

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Agenda

• Docker Momentum
• Docker Enterprise Overview
• CICD / Software Secure Supply Chain Demo
• Q&A
Modern Application Initiatives

3 out 4 Top initiatives revolve around applications

80% Have a hybrid cloud strategy

44% Looking to adopt DevOps
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

1M+ New Developers

1M+ New Applications

1B Container Downloads Every 2 Weeks
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

Community Edition
- Docker CE Engine
- 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

### Certified Containers
- Application Composition, Deployment and Reliability
- Policy Management
- Image Scanning and Monitoring
- Security
- Distributed State

### Certified Plugins
- Secure Access and User Management
- Content Trust and Verification
- Network
- Container Runtime
- Orchestration

### Additional Features
- Certification and Support
- Integrated App and Cluster Management
- Optimized Container Engine

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![Docker Logo](image-url)
Only Docker Enterprise Delivers All Three Core Enterprise Requirements

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

Choice

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

Agility
- Unified operations
- Rapid delivery and response
- Cost efficiency

Only Docker Enterprise Gives Global 2000 Customers the Following:
Docker EE Secures the End-to-End Software Supply Chain for both Swarm and Kubernetes

**Build With Integrity**
- Verify, sign, & scan
- Secure image storage
- Secure sensitive data

**Trusted Automation (CI/CD)**
- Verifiable chain of custody
- Policy-based automation

**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

Developers

BUILD
Development Environments

IT Operations

SHIP
Secure Content & Collaboration

RUN
Deploy, Manage, Scale
The Docker Enterprise CI/CD Demo Workflow

Developers

**BUILD**
Development Environments

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

**SHIP**
Secure Content & Collaboration

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

**RUN**
Deploy, Manage, Scale

- 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:
THANK YOU :)  

START TO INOVATE NOW  
GET IN TOUCH: INNOVATE@DOCKER.COM