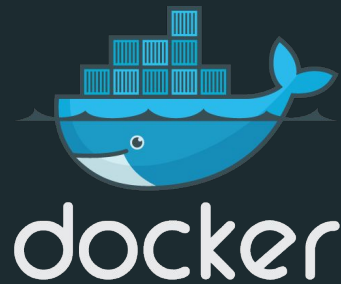


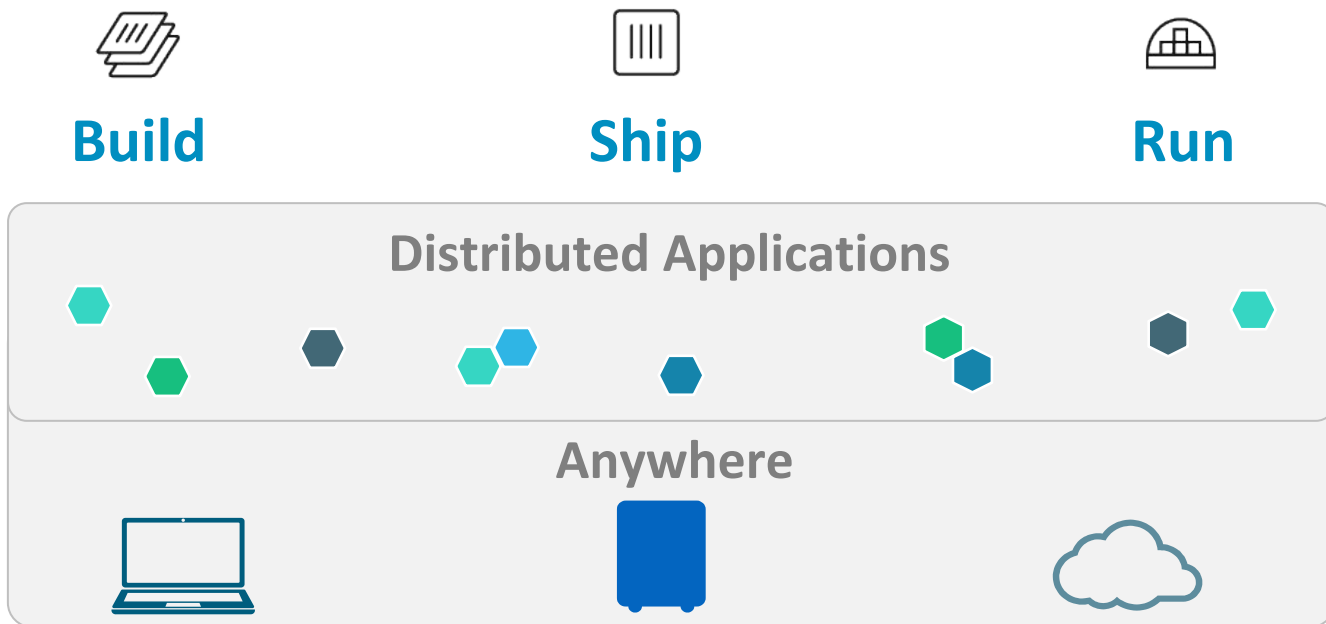
# Docker 1.10 Launch

*February 2016*

Pablo Chico de Guzmán



# The Docker Mission



# Docker 1.10 Launch Overview (1.10.2)

**Date:** February 4, 2016

Docker 1.10 advances the integrated toolset for developers to simply build complex distributed applications for IT operations to securely and reliably operate on any infrastructure.

## Included Releases:

- Docker Engine 1.10
- Docker Machine 0.6
- Docker Compose 1.6
- Docker Swarm 1.1
- Docker Registry 2.3

## Key Highlights

- Improved app orchestration with powerful app composition
- Comprehensive security for container applications
- Enhanced cluster solution



# Docker Compose: Simplify distributed applications

Docker Compose empowers developers to simply build and deploy complex distributed applications anywhere.

## Before

- Building distributed applications can be difficult
- Deploying applications depend on IT ops teams
- Physical infrastructure requests delay deployment times

## After

- Define an entire application in a single file
- Define services, networks, volumes, relationships to each other and requirements
- Single command deploy to any infrastructure



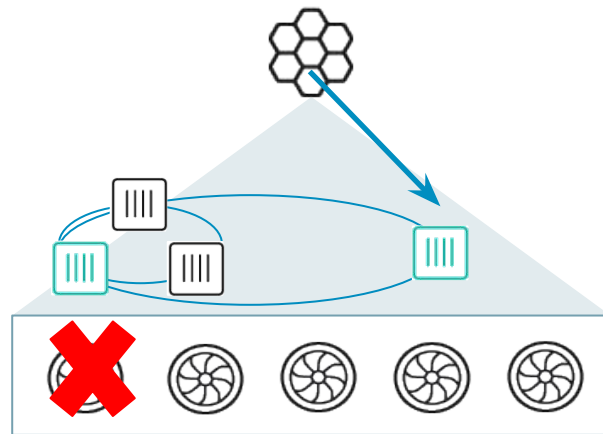
# Docker Compose: Simplify distributed applications

```
version: "2"
services:
  web:
    image: docker/myapp
    networks:
      - front-tier
      - back-tier
  redis:
    image: redis
    volumes:
      - data:/var/lib/redis
    networks:
      - back-tier
volumes:
  data:
    driver: local
networks:
  front-tier:
    driver: bridge
  back-tier:
    driver: bridge
```



# Docker Swarm: Enhanced reliability and availability

- Reschedule containers when node fails (experimental)
- Better node management with visibility into errors from nodes that fail to join the cluster



# Docker Networking: Enhancements

## Flexible Configurations

Links define container dependencies and alias hostnames

Define custom container IP addresses

## Reliability and Scalability

Embedded DNS server for hostname resolution and default service discovery

## Integration

Full support for Docker Compose with new file format



# Docker Engine 1.10

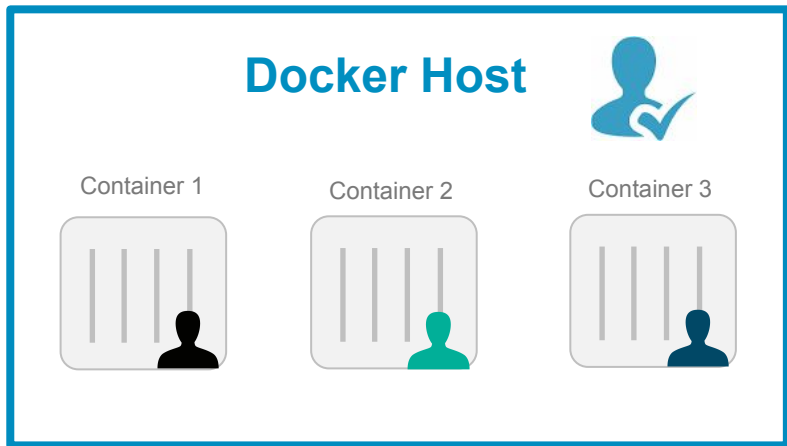
Comprehensive container security

Tools for IT operations





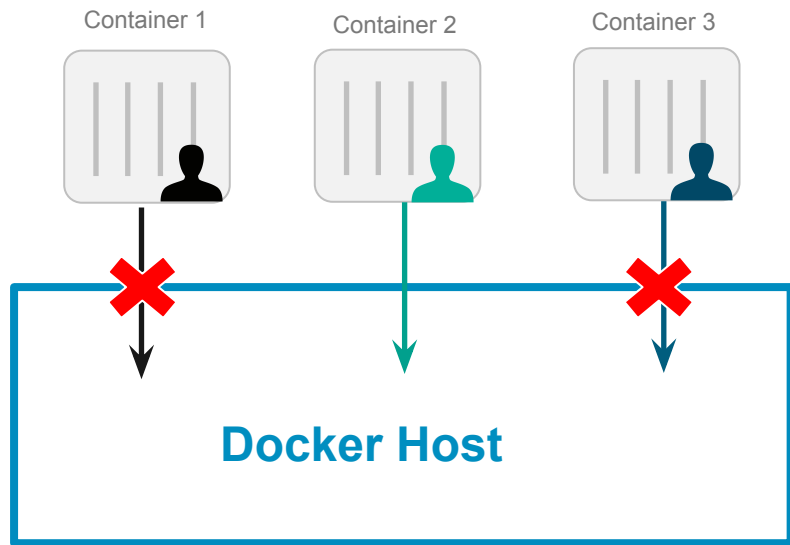
# Docker Security: User Namespaces



- Now available in stable release
- Configurable granular access controls
- Container root different than host root



# Docker Security: Seccomp Profiles



- Granular policy control defining what syscalls containers can make
- Increase security by reducing attack surface of the Linux kernel
- Secure by default with “default profile” applied to all containers
- Syscalls like `acct`, `add_key`, `clone`, `kexec_load`, `mount`, `reboot` and others are blocked by default profile



# Docker Security: Additional enhancements

## Content Addressable Image IDs

Unique IDs are generated based on the content within the Docker image

## Authorization plugins (AuthZ)

Plugin system to handle access control for Docker Engine



# Docker Engine: Enhancements for IT ops

## Live System Updates

Live update container  
resource constraints  
with restart

Reload daemon  
configs without restart

## Resource Constraints

Configure resource  
constraints for disk I/O

## Logging

New log driver for  
Splunk

Improved performance of `docker push` and `docker pull`



# Docker End to End

Integrated container orchestration across the application lifecycle

## Developers



Define:

- Services
- Networks
- Volumes

```
docker-compose up
```

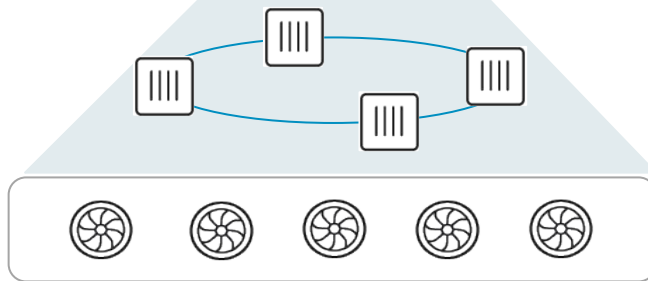
Deploy

## Operations



Operate:

- Clusters
- Policies
- Networks
- Storage





THANK YOU