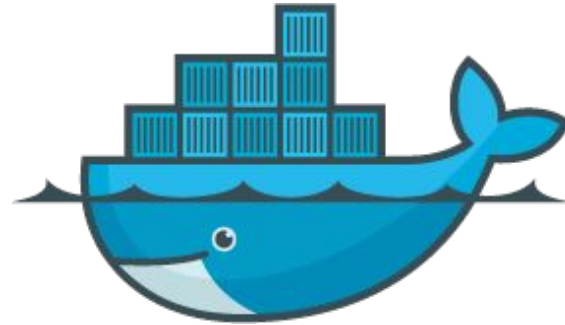


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# Docker III - Rise of the Machines



docker

PUG Challenge Americas  
2016

Thomas Hansen & Julian Lyndon-Smith  
whoGloo, Inc.



# Introduction

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Thomas Hansen  
CEO, whoGloo, Inc.

Julian-Lyndon-Smith  
CTO, whoGloo, Inc.

Working with Docker since 2014 :-)

- Core part of the nodeSpeed development platform and application runtime environments
- Used for internal OpenEdge projects



# Docker Compose

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- Tool for defining and running multi-container Docker applications
- Use a single compose file to configure all of your application's services
- Three-step process
  - Define your app's environment with a Dockerfile
  - Define the services that make up your app in `docker-compose.yml`
  - run `docker-compose up`



# Docker Compose

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- Compose has commands for managing the whole lifecycle of your application
- start, stop, rebuild services
- view status of services
- Stream the log output of running services
- Run a one-off command on a service



# Docker Compose Demo

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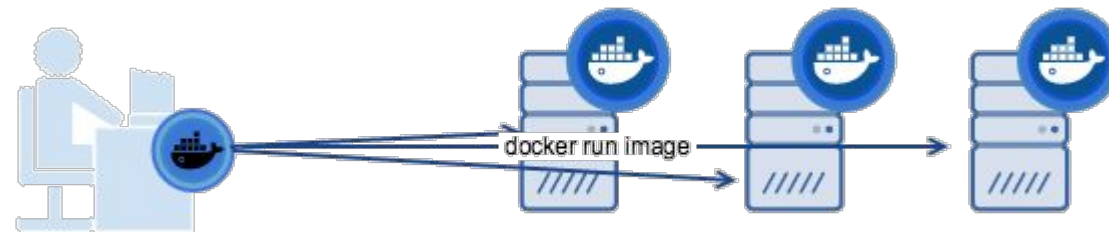
“Recipes” for projects with multiple containers

```
openeedge:  
  image: whogloo/openeedge116  
  volumes_from:  
    - openeedge_dev_data  
  ports:  
    - 9090:9090  
openeedge_dev_data:  
  image: busybox  
  volumes:  
    - /data
```



# Docker Machine

- Used to provision and manage multiple remote Docker hosts
  - company network
  - data center
  - cloud providers like AWS or Digital Ocean
- Provision swarm clusters
- Start, inspect, stop, and restart a managed host



# Docker Machine

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```
$ docker-machine create --driver digitalocean --  
digitalocean-access-token xxxxx docker-sandbox
```

```
$ docker-machine create --driver amazonec2 --  
amazonec2-access-key *** --amazonec2-secret-key  
*** aws-sandbox
```



# Docker Machine

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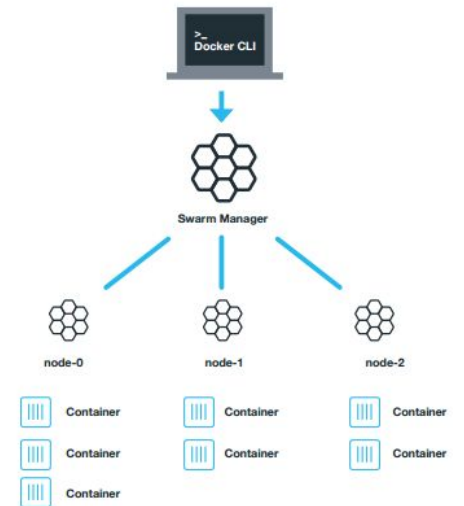
- Other plugins include
  - 1&1 Cloud Server
  - Citrix XenServer
  - HPE OneView
  - Scaleway
  - VMWare Workstation
  - and many more





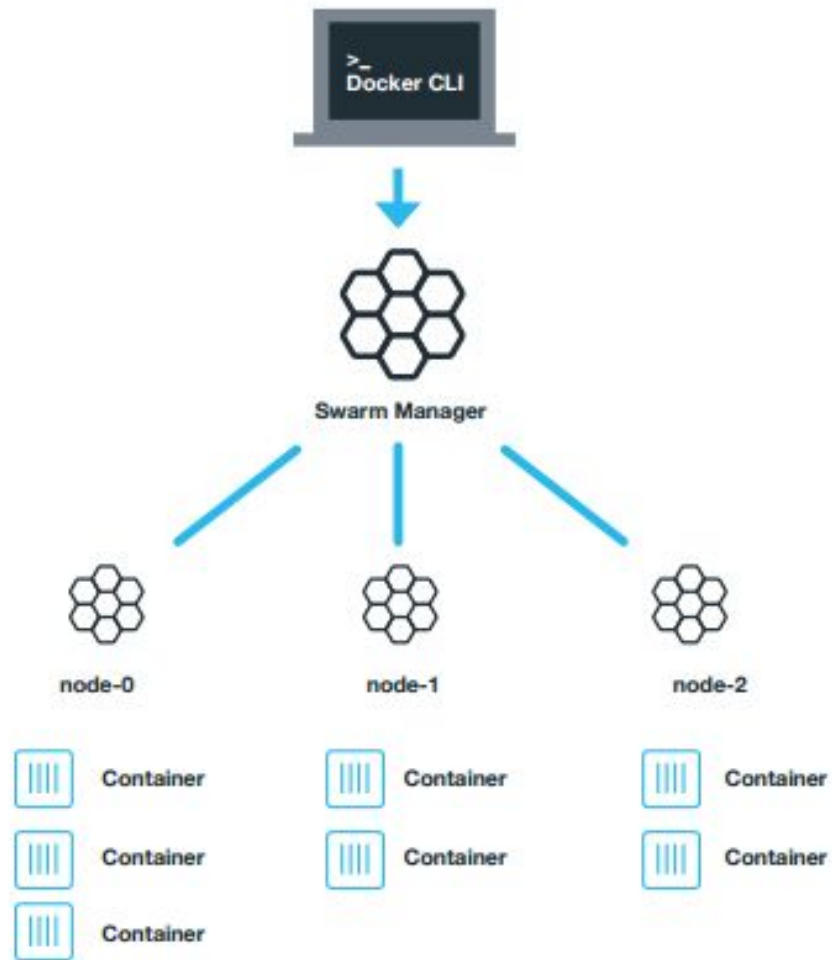
# Docker Swarm

- Docker Swarm is native clustering for Docker
- Turns a pool of Docker hosts into a single, virtual Docker host
- Transparently scale to multiple hosts



# Docker Swarm

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# Docker Swarm

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## Create a swarm

```
docker-machine create -d virtualbox \  
  --swarm --swarm-master \  
  --swarm-discovery token:// swarm-master
```

## Create more docker hosts for swarm

```
docker-machine create -d virtualbox \  
  --swarm --swarm-discovery token:// swarm-node-00
```



# Demos

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# Questions?

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