WP engine

Docker Swarm

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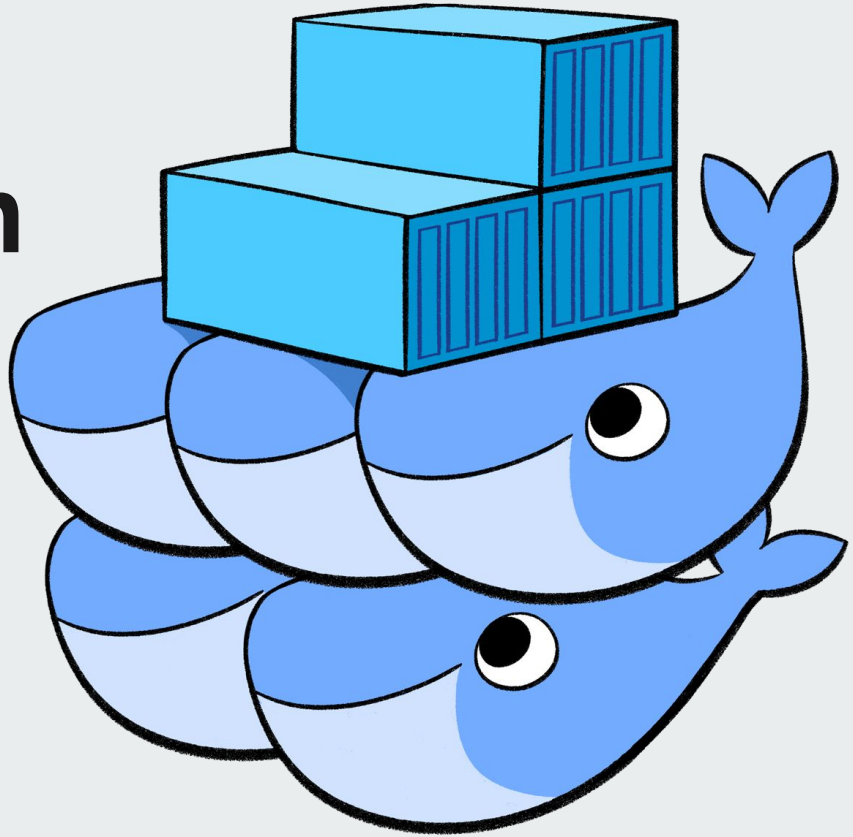
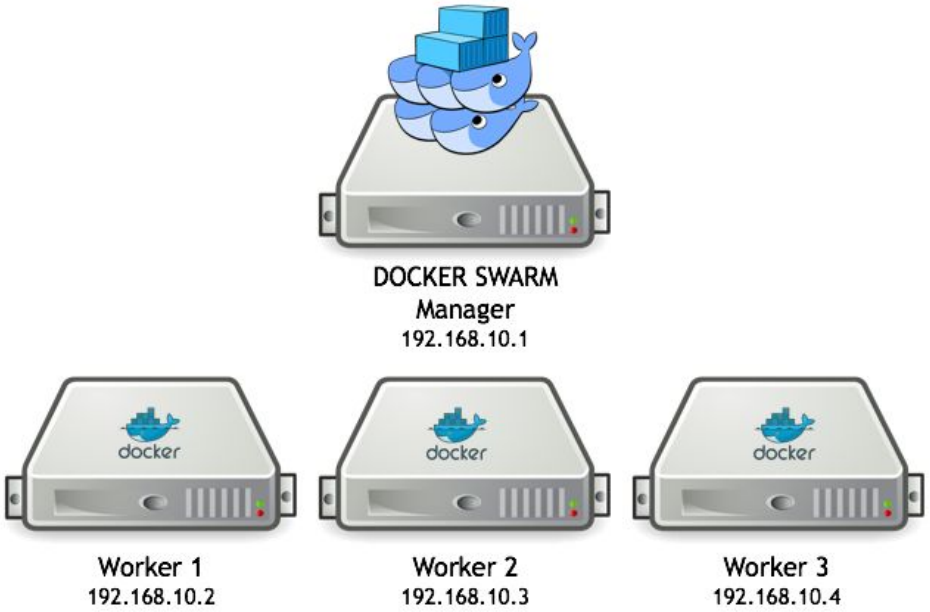


Container Life


CONTAINERS, CONTAINERS
EVERYWHERE
memegenerator.net

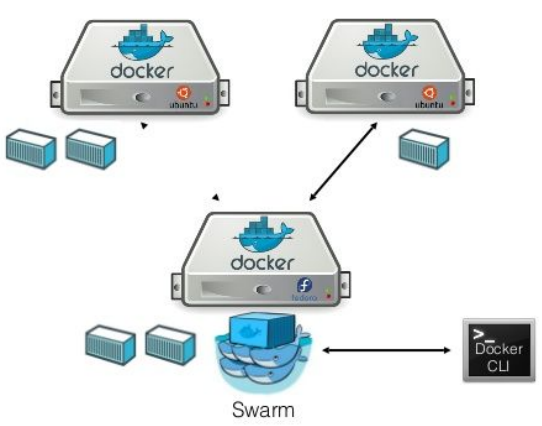
What is a swarm?

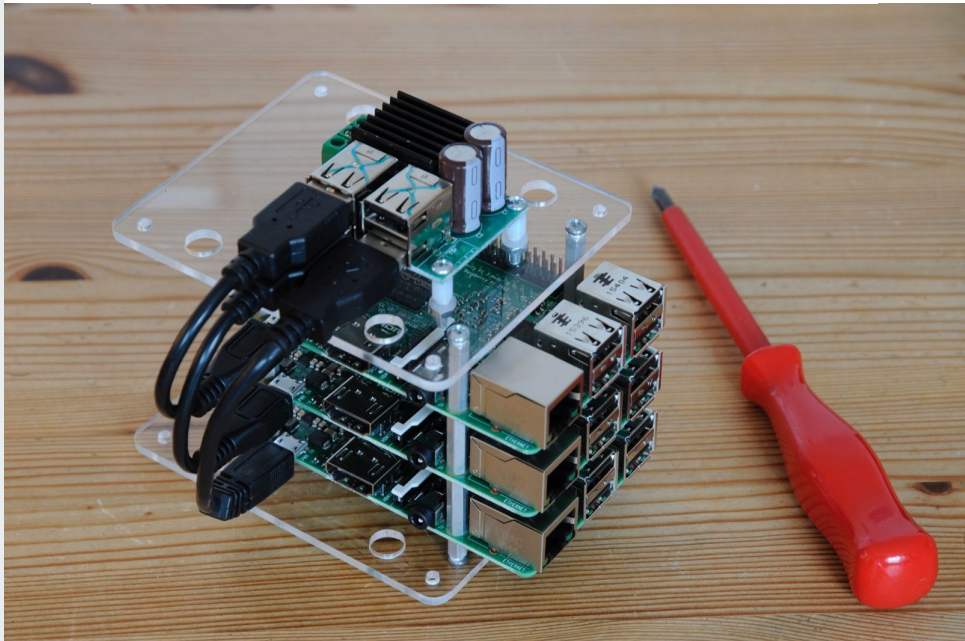
- Nodes
- Services and Tasks
- Load balancing



Nodes

- A node is an instance of the Docker engine participating in the swarm
- Manager nodes dispatch units of work
- Worker nodes receive and execute tasks dispatched from manager nodes





Services and Tasks

- A service is the definition of tasks
- Tasks run on manager or worker nodes
- You specify a container image and commands to execute inside running containers.
- Four types (**service, replicated services, global services, task**)

Service definition examples

```
docker service create \
  --name=viz \
  --publish=8080:8080/tcp \
  --constraint=node.role==manager \
  --mount=type=bind,src=/var/run/docker.sock,dst=/var/run/docker.sock \
  dockersamples/visualizer
```

```
docker service create \
  --name=minecraft \
  --publish=25565:25565/tcp \
  --constraint=node.role==worker \
  -e EULA=TRUE \
  itzg/minecraft-server
```

Load Balancing

- The swarm manager uses **ingress load balancing**.
- The swarm manager can **automatically** assign the service a **PublishedPort**
- You can also **manually** configure a **PublishedPort** for the service.
- The swarm manager distributes requests among services within the cluster based upon the DNS name of the service.

“An Ingress is a collection of rules that allow inbound connections to reach the cluster services” - kubernetes

Demo

Questions?