

Docker Swarm



Tech With NC

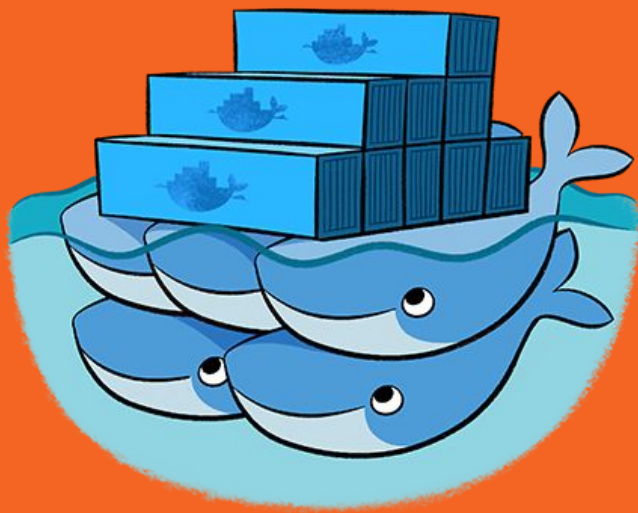
Cluster Setup

```
$ docker swarm init
```

```
$ docker swarm join-token worker
```

```
$ docker swarm join-token manager
```





Docker Swarm

(Node)

Docker Node

```
$ docker node ls
```

```
$ docker node inspect HOST_ID
```

```
$ docker node promote HOST_ID
```

```
$ docker node demote HOST_ID
```

```
$ docker node rm HOST_ID
```

(node need to leave)



Node Availability

```
$ docker node update --availability {Active  
/Pause/Drain}
```



Lock Your Swarm Cluster

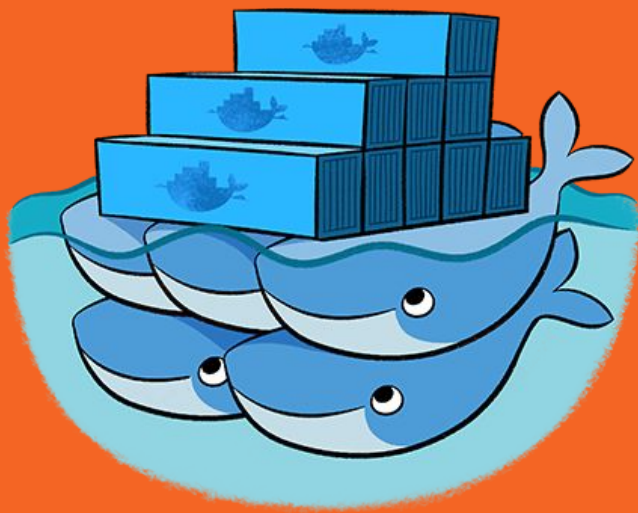
```
$ docker swarm init --autolock
```

```
$ docker swarm update --autolock=true
```

```
$ docker swarm unlock
```

```
$ docker swarm unlock-key
```





Docker Swarm

(Service)

Service

```
$ docker service ls  
$ docker service create --replicas 3 IMAGE  
$ docker service ps SERVICE_ID  
$ docker service inspect SERVICE_ID --pretty  
$ docker service logs SERVICE_ID  
$ docker service rm SERVICE_ID
```



Service Update

```
$ docker service create --replicas 3 SVI01
```

```
$ docker service update --replicas 5 SERVICE_ID
```

```
$ docker service update --image=IMAGE_NAME:TAG SERVICE_ID
```

```
$ docker service update --rollback SERVICE_ID
```

Service MODE

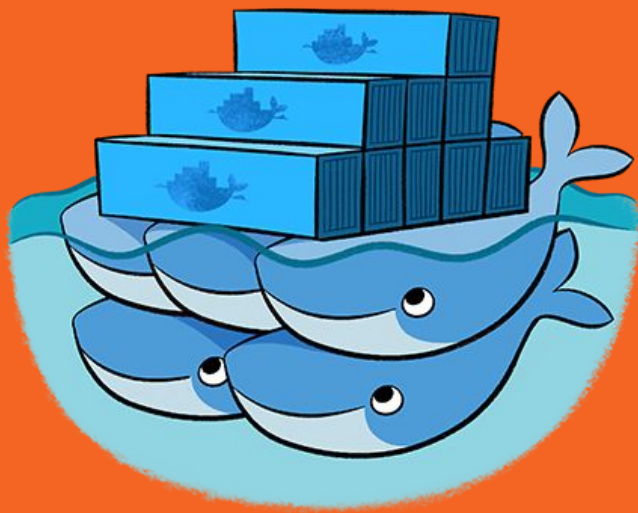
Replicated

```
$ docker service create --replicas 3 nginx  
$ docker service ls
```

Global

```
$ docker service create --mode global nginx  
$ docker service ls
```





Docker Swarm

(Placement)

Placement

NODE

```
$ docker node update --label-add KEY=VALUE NODE_ID
```

```
$ docker node update --label-add name=node01 1111111
```

SERVICE

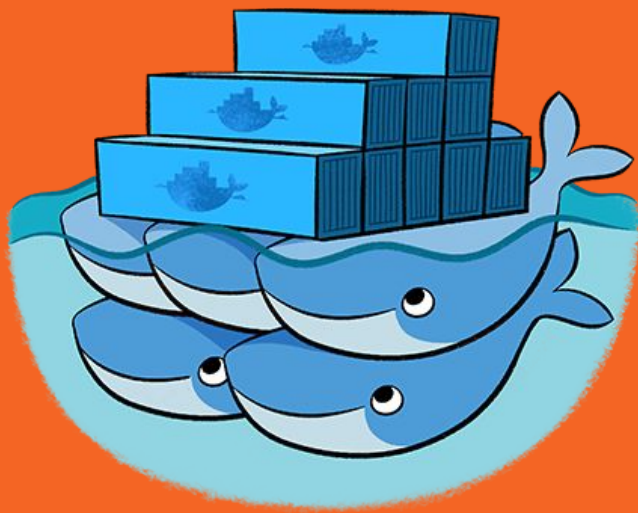
```
$ docker service create --constraint=node.labels.KEY==VALUE SVI01
```

```
$ docker service create --constraint=node.labels.name==node01 1111111
```

```
$ docker service create --constraint=node.labels.type==highcpu --replicas 10 222222
```

```
$ docker service create --constraint=node.labels.type!=highcpu --replicas 10 222222
```

```
$ docker service create --constraint=node.role==worker --replicas 10 222222
```



Docker Swarm

(Config)

Config

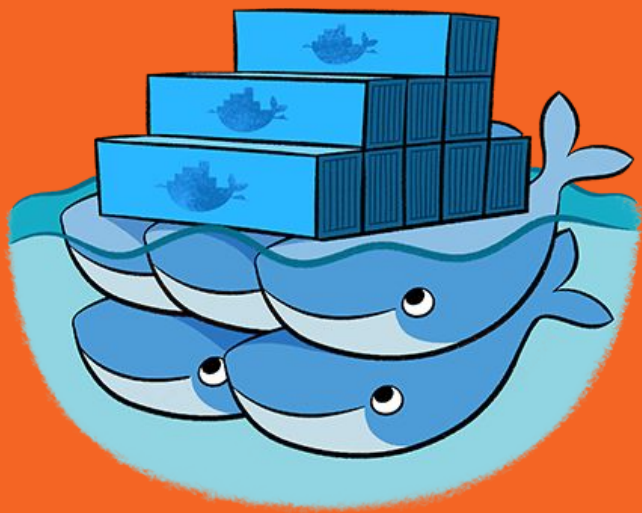
```
$ docker config ls
```

```
$ docker config create CONFIG_NAME PATH/FILE
```

```
$ docker config inspect CONFIG_ID
```

```
$ docker config rm CONFIG_ID
```

```
$ docker service create --config src=CONFIG_NAME,target=PATH/FILE_NAME SVC_NAME
```



Docker Swarm

(Network)

Overlay Network

```
$ docker network ls
```

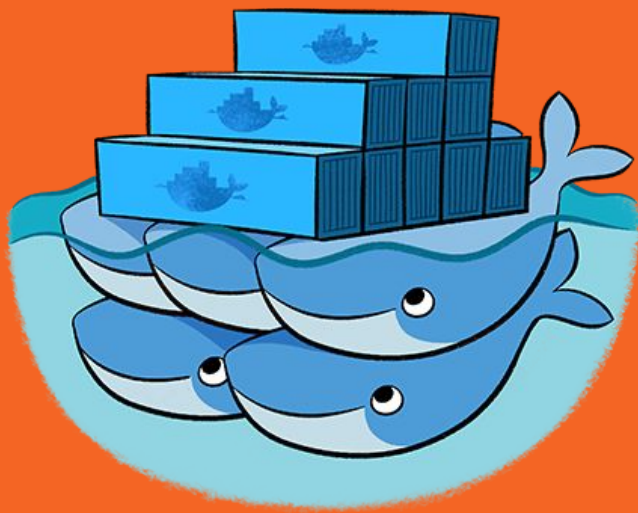
```
$ docker network create --driver overlay NETWORK_NAME
```

```
$ docker network create --driver overlay --subnet x.x.x.x/x NETWORK_NAME
```

```
$ docker network rm NETWORK_NAME
```

```
$ docker network prune
```

```
$ docker service create --network NETWORK_NAME SERVICE_NAME
```

Docker Swarm

(Publishing Ports)

Publishing Ports

```
$ docker service create --publish published=8000,target=80 SERVICE_NAME
```

```
$ docker service create --publish published=5000,target=80,protocol=tcp SERVICE_NAME
```



Thank You!