

Create a swarm

Estimated reading time: 2 minutes

After you complete the tutorial setup (<https://docs.docker.com/engine/swarm/swarm-tutorial/>) steps, you're ready to create a swarm. Make sure the Docker Engine daemon is started on the host machines.

1. Open a terminal and ssh into the machine where you want to run your manager node. This tutorial uses a machine named `manager1` . If you use Docker Machine, you can connect to it via SSH using the following command:

```
$ docker-machine ssh manager1
```

2. Run the following command to create a new swarm:

```
$ docker swarm init --advertise-addr <MANAGER-IP>
```

Note: If you are using Docker Desktop for Mac or Docker Desktop for Windows to test single-node swarm, simply run `docker swarm init` with no arguments. There is no need to specify `--advertise-addr` in this case. To learn more, see the topic on how to Use Docker Desktop or Mac or Docker Desktop for Windows (<https://docs.docker.com/engine/swarm/swarm-tutorial/#use-docker-for-mac-or-docker-for-windows>) with Swarm.

In the tutorial, the following command creates a swarm on the `manager1` machine:

```
$ docker swarm init --advertise-addr 192.168.99.100
Swarm initialized: current node (dxn1zf6l6lqsb1josjja83ngz)
is now a manager.
```

To add a worker to this swarm, run the following command:

```
docker swarm join \
  --token SWMTKN-1-49nj1cmql0jkz5s954yi3oex3nedyz0fb0xx14i
e39trti4wxv-8vxv8rssmk743ojnwacrr2e7c \
  192.168.99.100:2377
```

To add a manager to this swarm, run 'docker swarm join-token manager' and follow the instructions.

The `--advertise-addr` flag configures the manager node to publish its address as `192.168.99.100`. The other nodes in the swarm must be able to access the manager at the IP address.

The output includes the commands to join new nodes to the swarm. Nodes will join as managers or workers depending on the value for the `--token` flag.

3. Run `docker info` to view the current state of the swarm:

```
$ docker info

Containers: 2
Running: 0
Paused: 0
Stopped: 2
...snip...
Swarm: active
NodeID: dxn1zf6l6lqsb1josjja83ngz
Is Manager: true
Managers: 1
Nodes: 1
...snip...
```

4. Run the `docker node ls` command to view information about nodes:

```
$ docker node ls
```

ID	HOSTNAME	STATUS	AVAILABILITY
MANAGER STATUS			
dxn1zf6l61qsb1josjja83ngz *	manager1	Ready	Active
Leader			

The `*` next to the node ID indicates that you're currently connected on this node.

Docker Engine swarm mode automatically names the node for the machine host name. The tutorial covers other columns in later steps.

What's next?

In the next section of the tutorial, we add two more nodes (<https://docs.docker.com/engine/swarm/swarm-tutorial/add-nodes/>) to the cluster.

tutorial (<https://docs.docker.com/glossary/?term=tutorial>), cluster management ([https://docs.docker.com/glossary/?term=cluster management](https://docs.docker.com/glossary/?term=cluster%20management)), swarm mode ([https://docs.docker.com/glossary/?term=swarm mode](https://docs.docker.com/glossary/?term=swarm%20mode))