

Title: Docker-Compose with Docker 1.12 'Swarm Mode'

Post Body:

Does anyone know how (if possible) to run docker-compose commands against a swarm using the new docker 1.12 'swarm mode' swarm?

I know with the previous 'Docker Swarm' you could run docker-compose commands directly against the swarm by updating the DOCKER\_HOST to point to the swarm master :

```
export DOCKER_HOST='tcp://123.123.123.123:3375'
```

and then simply execute commands as if you were running them against a single instance of Docker engine.

OR is this functionality something that `docker-compose bundle` is replacing?

Accepted Answer: None

Highest Rated Answer:

I realized my question was vaguely worded and actually has two parts to it. Eventually however, I was able to figure out solutions to both issues.

### 1) Can you run commands directly 'against' a swarm / swarm-mode in Docker 1.12 running on a remote machine?

While you can't really run commands 'against' a swarm you CAN run `docker service` commands on the master node of a swarm in order to run services on that swarm.

You can also configure the Docker daemon (the docker daemon that is the master node of the swarm) to listen on TCP ports in order to externally expose the Docker API.

### 2) Can you still use docker-compose files to start services in Docker 1.12 swarm-mode?

Yes, although these features are currently part of Docker's 'experimental' features. This means you must download/install the version that includes the experimental features (check the github).

You essentially follow these instructions <https://github.com/docker/docker/blob/master/experimental/docker-stacks-and-bundles.md>

to go from the docker-compose.yml file to a distributed application bundle and then to an application stack (this is when your services are actually run).

```
$ docker-compose bundle
$ docker deploy [OPTIONS] STACK
```

#### Here's what I did:

On my remote swarm manager node I started docker with the following options:

```
docker daemon -D -H unix:///var/run/docker.sock -H tcp://0.0.0.0:2375 &
```

This configures Docker daemon to listen on the standard docker socket `unix:///var/run/docker.sock` AND on `localhost:2375`.

WARNING : I'm not enabling TLS here just for simplicity

On my local machine I update the docker host environment variable to point at my swarm master node.

```
$ export DOCKER_HOST='tcp://XX.XX.XX.XX:2377' (populate with your IP)
```

Navigate to the directory of my docker-compose.yml file

Create a bundle file from my docker-compose.yml file. Make sure to include the `.dab` extension. `docker-compose bundle --fetch-digests -o myNewBundleFile.dab`

Create an application stack from the bundle file. Do not specify the `.dab` extension here.

```
$ docker deploy myNewBundleFile
```

Now I'm still experiencing some networking related issues but I have successfully gotten my service up and running from my unmodified docker-compose.yml files. The network issues I'm experiencing is documented here : <https://github.com/docker/docker/issues/23901>