

Title: What is the difference between Docker Service and Docker Container?

Post Body:

When do we use a `docker service create` command and when do we use a `docker run` command?

Accepted Answer: None

Highest Rated Answer:

In short: Docker service is used mostly when you configured the master node with Docker swarm so that docker containers **will run in a distributed environment** and it can be easily managed.

Docker run: The docker run command first creates a writeable container layer over the specified image, and then starts it using the specified command.

That is, docker run is equivalent to the API `/containers/create` then `/containers/(id)/start`

source: <https://docs.docker.com/engine/reference/commandline/run/#parent-command>

Docker service: Docker service will be the image for a microservice within the context of some larger application. Examples of services might include an HTTP server, a database, or any other type of executable program that you wish to run in a distributed environment.

When you create a service, you specify which container image to use and which commands to execute inside running containers. You also define options for the service including:

- the port where the swarm will make the service available outside the swarm
- an overlay network for the service to connect to other services in the swarm
- CPU and memory limits and reservations
- a rolling update policy
- the number of replicas of the image to run in the swarm

source: <https://docs.docker.com/engine/swarm/how-swarm-mode-works/services/#services-tasks-and-containers>