

Containerized MADS

Paolo Bosetti

2025-06-02

The base agents for setting up a MADS network are available as a containerized environment.

Table of contents

Contents	1
Prerequisites	1
Running the MADS network	2
Step 1. Clone the repo	2
Step 2. Build containers	2
Step 3. Run the containers	2

Contents

Setting up a MADS network requires a minimum of a broker, a MongoDB server, and the logger agent. This guide explains the easiest and more portable solution to have them up and running in minutes in a Docker environment.

Prerequisites

You need to have Docker installed on your machine. If you don't have it yet, you can follow the [official installation guide](#). Follow that guide thoroughly, and make sure you can run this command in your terminal:

```
docker run hello-world
```

Running the MADS network

The MADS Network is actually available as a **compose** network of three containers: the broker, the MongoDB server, and the logger agent. Docker has a **docker compose** command that allows to build and deploy multiple, synchronized containers properly sharing network communications.

To find more on **docker compose**, have a look at the [documentation](#).

Step 1. Clone the repo

All you need is in the [MADS_container](#) repository. You can clone it with the following command:

```
git clone --depth 1 https://github.com/MADS-NET/MADS_container.git
```

Step 2. Build containers

In the `MADS_container` directory, you can build the containers with the following command:

```
docker compose build
```

Note

This is only to be done once.

Step 3. Run the containers

You can now run the containers with the following command:

```
docker compose up -d
```

This starts the three containerized processes: MogoDB, the broker, and the logger agent.

i Note

You can stop the containers at any time with the command `docker compose down`.

Now the broker and the database are also accessible as if they were processes running on your host machine.