

Docker deployment

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Introduction

Kaa sources come with the Docker image starting from version 0.9.0. This image helps you with fast deployment of the Kaa clusters.

The Kaa Docker image is placed under the **/server/containers** folder in the Kaa repository.

The default environments that come in this package are:

- Fully functional Kaa cluster
 - Kaa node
 - Zookeeper node
 - PostgreSQL node
 - Cassandra node
 - MongoDB node
- Single Kaa node, which can be deployed to an existing cluster

The base image configuration is done using the following environment variables:

Variable name	Sample values	Description
CONTROL_ENABLED	true/false	Determines whether control server enabled on this node or not
BOOTSTRAP_ENABLED	true/false	Determines whether bootstrap server enabled on this node or not
OPERATIONS_ENABLED	true/false	Determines whether operations server enabled on this node or not
DATABASE	cassandra/mongodb	Determines whether Cassandra or MongoDB provider will be used
ZK_HOSTS	localhost:2181, anotherhost:2181	Comma-separated list of Zookeeper nodes hostname:port
CASSANDRA_HOSTS	localhost:9042, ...	Comma-separated list of Cassandra nodes hostname:port
MONGODB_HOSTS	localhost:27017, ...	Comma-separated list of MongoDB nodes hostname:port
JDBC_HOST	localhost	PostgreSQL database hostname
JDBC_PORT	5432	PostgreSQL database port

Steps to deploy

1. Download the Kaa debian package from <http://www.kaaproject.org/download-kaa/> and place it under the **node/** folder.
2. Execute the following command from the **node/** folder:

```
$ docker build --build-arg setupfile=<KAA_DEBIAN_PACKAGE_LOCATION> -t kaaproject/node:0.9.0 .
```

An example of <KAA_DEBIAN_PACKAGE_LOCATION> is ./kaa-node.deb

3. Return to the **docker/** folder and run:

```
$ docker-compose -f docker-compose-cluster-1-node.yaml up -d
```

4. If you want deploy a single node to an external cluster, edit the **docker-compose-1-node.yaml** file (set correct service hostnames) and run:

```
$ docker-compose -f docker-compose-1-node.yaml up -d
```

5. Execute the following command to get into the running container:

```
$ docker exec -i -t docker_kaa_node_1 bash
```

