Installation guide

Introduction

This guide describes installation and configuration of Kaa components on a single Linux node. If this is the first time you use Kaa, we recommend that you start the evaluation using the Kaa Sandbox instead of attempting manual installation described in this guide. The Kaa Sandbox emulates a single-node Kaa installation which comes already pre-configured so that you could instantly start developing applications. Additionally, the Kaa Sandbox provides a number of demo applications for you to play with and learn by example.

Kaa requirements and supported versions

Supported OS

Kaa supports the following operating system families and provides installation packages for each of them.

- Ubuntu and Debian systems
- Red Hat/CentOS/Oracle 5 or Red Hat 6 systems

Please note that the instructions from this guide were tested on Ubuntu 14.04 and Centos 6.7. Instructions for other OS may have minor differences.

System requirements

To use Kaa, your system must meet the following minimum system requirements.

- 64-bit OS
- 4 Gb RAM

Third party components

Kaa requires the following third party components to be installed and configured.

- Oracle JDK 8. Kaa has been tested on JDK 8.
- PostgreSQL 9.4. Kaa has been tested on the latest production release of PostgreSQL.
- Zookeeper 3.4.5. Kaa requires ZooKeeper for coordination of server components.

Kaa also requires MongoDB 2.6.9 or Cassandra 2.2.5 as a NoSQL database. The installation steps for third-party components are provided in the following section.

Installation steps

Third party components

Kaa server components

To install Kaa you will need to [download] pre-built packages or [build] them from the [source code]. We will use pre-built packages in this guide.

Configuration steps

SQL database configuration

Check that the PostgreSQL password is up to date in the server configuration files.

```
$ cat /etc/kaa-node/conf/admin-dao.properties | grep jdbc_password
jdbc_password=admin
$ cat /etc/kaa-node/conf/dao.properties | grep jdbc_password
jdbc_password=admin
```

In case of the password mismatch, edit the configuration file to set a new password.

```
$ sudo nano /etc/kaa-node/conf/admin-dao.properties
$ sudo nano /etc/kaa-node/conf/dao.properties
```

NoSQL database configuration

Check that a NoSQL database name matches your choice.

```
$ cat /etc/kaa-node/conf/dao.properties | grep nosql_db_provider_name
nosql_db_provider_name=mongodb
```

In case you are going to use Cassandra, execute the following commands.

```
$ sudo cqlsh -f /etc/kaa-node/conf/cassandra.cql
$ sudo nano /etc/kaa-node/conf/dao.properties
nosql_db_provider_name=cassandra
```

Network interface configuration

This step will configure a public interface for Operations and Bootstrap servers. It is important to specify the hostname or an IP address that is visible for devices in your network. This will allow various devices to communicate with the server components.

```
$ sudo nano /etc/kaa-node/conf/kaa-node.properties
transport_public_interface=localhost=YOUR_PUBLIC_INTERFACE
```

Firewall rules configuration

Startup steps

Start Kaa service.

```
$ sudo service kaa-node start
```

Check logs after the startup.

```
$ cd /var/log/kaa
$ cat * | grep ERROR
```

Open Admin UI in a web browser: http://YOUR_SERVER_HOST:8080/kaaAdmin. This will open a web page that will request to enter the Kaa administrator login and password information. This is one time operation.

Further reading

Use the following guides and references to make the most of Kaa.

Guide	What it is for
Administration UI guide	Use this guide to start working with the Kaa web UI.
Programming guide	Use this guide to create your own Kaa applications.