

# Kaa Sandbox

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Kaa Sandbox is a private Kaa environment which includes demo client applications. Sandbox includes all necessary Kaa components in a convenient virtual environment that can be set up in just 5 minutes!

With the use of Kaa Sandbox, anyone can learn Kaa, build a proof of concept and test their own applications locally.

You can either install Kaa Sandbox as described on this page or run it on [Amazon EC2](#).

## Video tutorial

## Installing Kaa Sandbox

Kaa Sandbox is presented as a stand-alone virtual machine.

### System requirements

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

- 64-bit OS
- 4GB RAM
- Virtualization enabled in BIOS

### Installation steps

To install Kaa Sandbox, perform the following steps.

1. Install the virtualization environment.  
The current version of Kaa Sandbox supports [Oracle VirtualBox 4.2+](#) which is available as a free download.
2. Download the Sandbox image from [Kaa download page](#).
3. Import the Sandbox image using this [guide](#).

### Known issues

Please take into account the following known issues and limitations of Kaa Sandbox.

- Without the SMTP server configured, you will not be able to create new users. See the [Outgoing mail settings section](#) for more details.
- Demo applications are available for download, however, they do not work properly due to the default sandbox networking configuration. To proceed with the demo applications, you need to configure the network as described in [Networking section](#).

### Troubleshooting

Common issues covered in this [guide](#).

## Configuration

### Outgoing mail settings

Outgoing mail settings are used to send emails to newly created users with the information about their passwords, as well as other notifications.

By default, outgoing mail settings are not configured for Admin UI. To target Admin UI to your SMTP server refer to the [Admin UI](#) guide.

## Networking

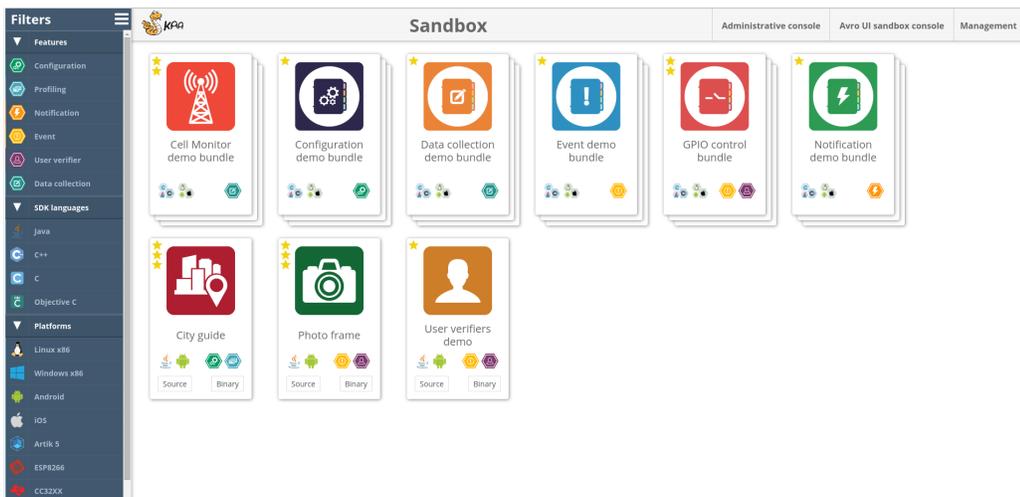
By default, Kaa Sandbox components are not accessible from the host network. Port forwarding is configured only for your local machine in order to give you ssh and web access. Thus, to explore demo applications you need to reconfigure the network interface for this virtual machine. Once the virtual box is available to devices on your local/test network, you need to change Sandbox host/IP on [web UI](#) or execute the script on Sandbox.

## Kaa Sandbox web UI

Kaa Sandbox web UI provides you with access to Kaa demo projects and some basic Kaa Sandbox configuration capabilities. Once Kaa Sandbox is installed and opened, the web UI is available at the following URL (by default): <http://127.0.0.1:9080/sandbox>.

## Demo projects

You can download both source and binary distributions for each demo project. A downloaded binary already contains Kaa SDK that targets current Kaa Sandbox. Thus, if you successfully configure the [networking](#) for your SDK, the downloaded application will be able to access it and will work correctly.



## Admin UI

You can access Admin UI by clicking **Administrative console** at the top of the window.

Refer to the [Admin UI](#) guide for working instructions.

### NOTE

Kaa Sandbox provides default credentials for all three types of Kaa users, as follows:

- Kaa admin - *kaa/kaa123*
- Tenant admin - *admin/admin123*
- Tenant developer - *devuser/devuser123*

## Avro UI

You can access Avro UI by clicking **Avro UI sandbox console** at the top of the window.

Refer to the [Avro UI](#) guide for working instructions.

## Further reading

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

Guide	What it is for
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<a href="#">Administration UI guide</a>	Use this guide to start working with the Kaa web UI (or Kaa Sandbox web UI).
<a href="#">Design reference</a>	Use this reference to learn about features and capabilities of Kaa.
<a href="#">Programming guide</a>	Use this guide to create your own Kaa applications.
<a href="#">Kaa configuration files</a>	Use this guide to set up necessary environment for installing and programming Kaa.
<a href="#">Installation guide</a>	Use this guide to install and configure Kaa either on a single Linux node or in a cluster environment.