

Portainer



Portainer Community Edition is a lightweight service delivery platform for containerized applications that can be used to manage Docker, Swarm, Kubernetes and ACI environments. It is designed to be as simple to deploy as it is to use. The application allows you to manage all your orchestrator resources (containers, images, volumes, networks and more) through a 'smart' GUI and/or an extensive API.

Portainer consists of a single container that can run on any cluster. It can be deployed as a Linux container or a Windows native container.

Introduction

Portainer consists of two elements, the *Portainer Server*, and the *Portainer Agent*. Both elements run as lightweight Docker containers on a Docker engine. This document will help you install the Portainer Server container on your Linux environment. To add a new Linux environment to an existing Portainer Server installation, please refer to the **Portainer Agent Installation** section of this guide.

To get started, you will need:

- The latest version of Docker installed and working
- sudo access on the machine that will host your Portainer Server instance
- By default, Portainer Server will expose the UI over port `9443` and expose a TCP tunnel server over port `8000`.
 - The latter is optional and is only required if you plan to use the Edge compute features with I

Deployment

First, create the volume that Portainer Server will use to store its database:

```
docker volume create portainer_data
```

Then, download and install the Portainer Server container:

```
docker run -d -p 8000:8000 -p 9443:9443 --name portainer --restart=always -v /var/run/docker.sock:/var/run/docker.sock -v portainer_data:/data portainer/portainer-ce:latest
```

By default, Portainer generates and uses a self-signed SSL certificate to secure port `9443`. Alternatively you can provide your own SSL certificate during installation or via the Portainer UI after installation.

If you require HTTP port `9000` open for legacy reasons, the following to your `docker run` command: **add -p 9000:9000**

Portainer Server has now been installed. You can check to see whether the Portainer Server contain

```
docker ps
```

If all is well, you should see container is Up

```
root:~# docker ps
CONTAINER ID   IMAGE                                COMMAND                                CREATED
STATUS
PORTS
NAMES
de5b28eb2fa9   portainer/portainer-ce:latest       "/portainer"                           2 weeks ago   Up 9
days         0.0.0.0:8000->8000/tcp, :::8000->8000/tcp, 0.0.0.0:9443->9443/tcp, :::9443->9443/tcp
portainer
```

Logging In

Now that the installation is complete, you can log into your Portainer Server instance by opening a v

```
https://localhost:9443
```

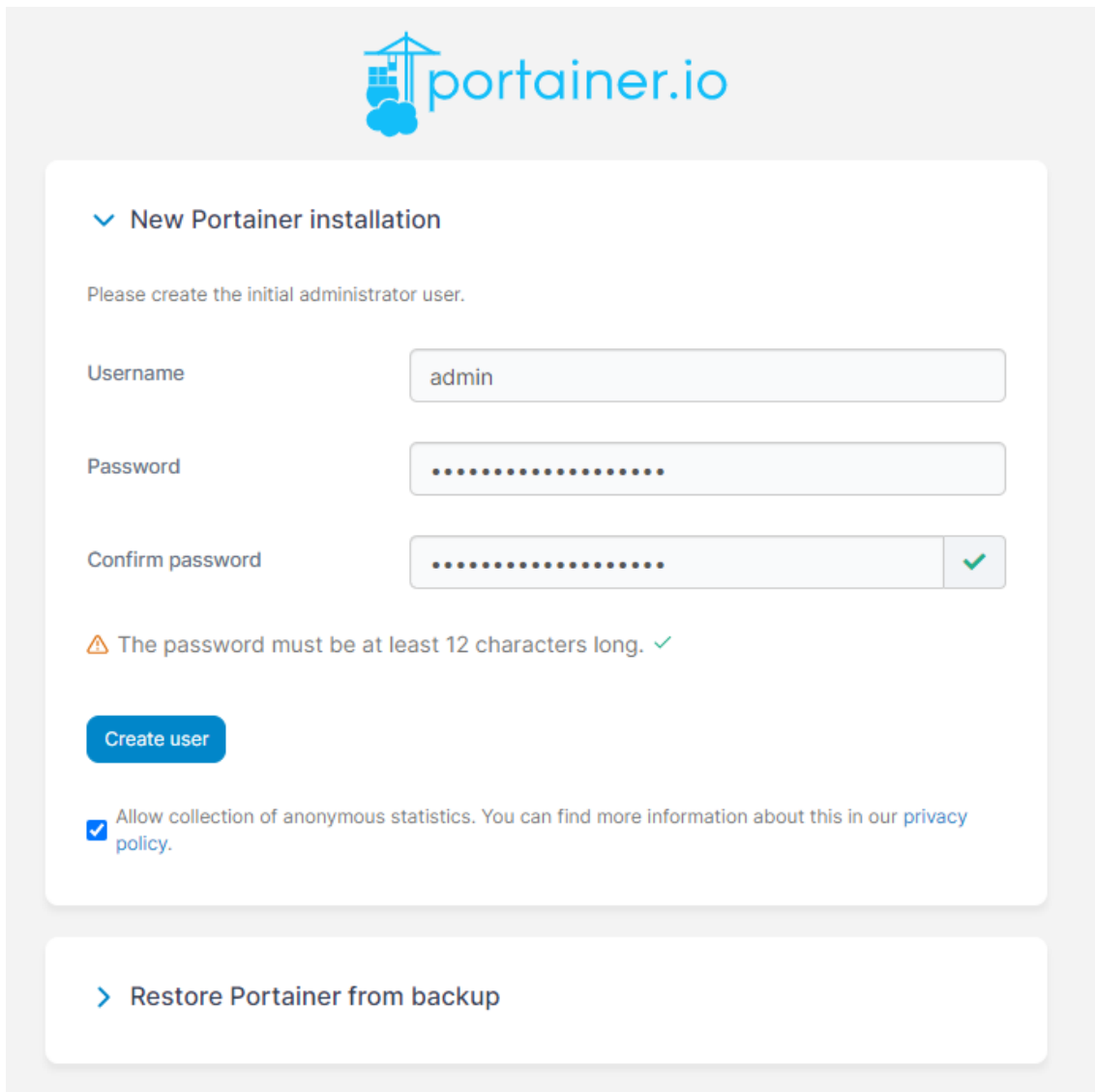
Replace `localhost` with the relevant IP address or FQDN if needed, and adjust the port if you changed it earlier.

You will be presented with the initial setup page for Portainer Server.

Initial Setup

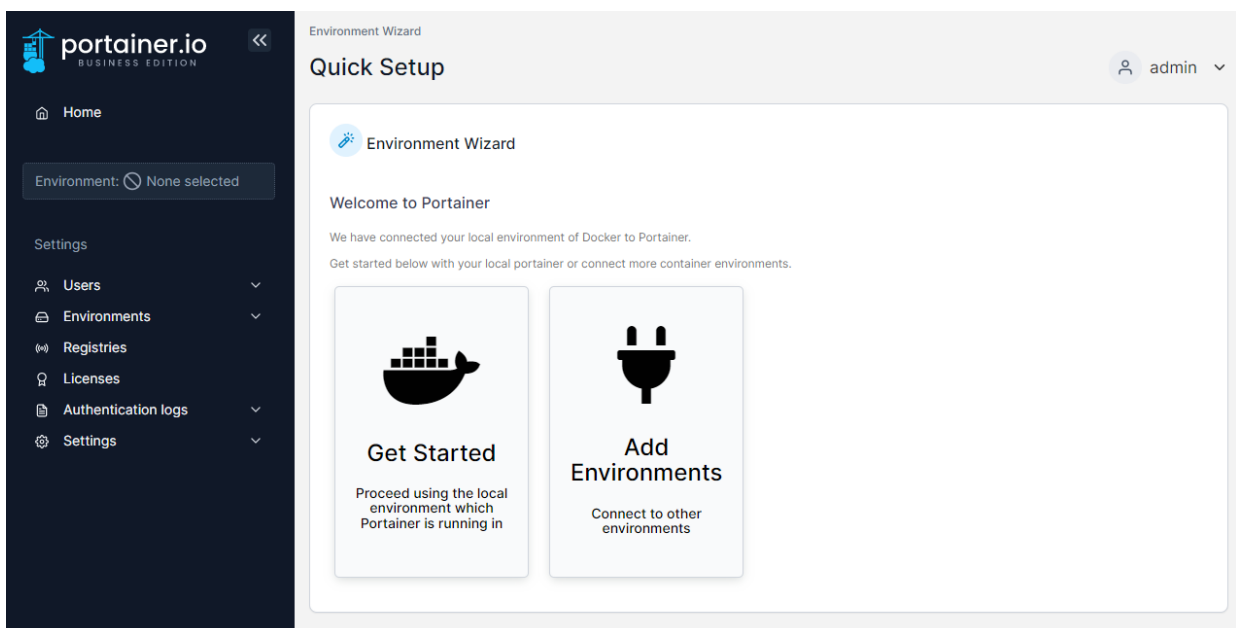
Your first user will be an administrator. The username defaults to `admin` but you can change it if you prefer.

The password must be at least 12 characters long and meet the listed password requirements.



The screenshot shows the 'New Portainer installation' form. At the top is the Portainer.io logo. Below it, a section titled 'New Portainer installation' contains the instruction 'Please create the initial administrator user.' There are three input fields: 'Username' with the value 'admin', 'Password' (masked with dots), and 'Confirm password' (also masked with dots and a green checkmark on the right). Below the fields is a warning message: '⚠ The password must be at least 12 characters long. ✓'. A blue 'Create user' button is positioned below the warning. At the bottom of the form is a checkbox labeled 'Allow collection of anonymous statistics. You can find more information about this in our [privacy policy](#).' which is checked. Below the form is a button with a right-pointing arrow and the text 'Restore Portainer from backup'.

Once the admin user has been created, the **Environment Wizard** will automatically launch.



The screenshot shows the 'Environment Wizard' 'Quick Setup' screen. The top left features the Portainer.io logo and a navigation menu with items: Home, Environment: None selected, Settings, Users, Environments, Registries, Licenses, Authentication logs, and Settings. The main content area is titled 'Environment Wizard' and 'Quick Setup'. It includes a 'Welcome to Portainer' message: 'We have connected your local environment of Docker to Portainer. Get started below with your local portainer or connect more container environments.' Below this are two large buttons: 'Get Started' with a ship icon and the text 'Proceed using the local environment which Portainer is running in', and 'Add Environments' with a plug icon and the text 'Connect to other environments'. The top right of the screen shows the user 'admin' with a dropdown arrow.

The installation process automatically detects your local environment and sets it up for you. If you want to add additional environments to manage with this Portainer instance, click [Add Environment](#)

Otherwise, click [Get Started](#) to start using Portainer!

Portainer Agent Installation

Portainer uses the *Portainer Agent* container to communicate with the *Portainer Server* instance and provide access to the node's resources.

On each computer that is running Docker containers that you want to manage, you will need to install the Portainer agent by executing the following:

```
docker run -d -p 9001:9001 --name portainer_agent --restart=always -v
/var/run/docker.sock:/var/run/docker.sock -v /var/lib/docker/volumes:/var/lib/docker/volumes
portainer/agent:latest
```

Once the agent has been installed you are ready to add the environment to your Portainer Server installation.

Revision #10

Created 2023-03-15 04:24:51 UTC by Tim

Updated 2023-04-17 16:09:57 UTC by Tim