

# Virtual Server Deployment Guide

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## Overview

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This document will take you through the steps to get access to the LinuxONE community cloud, deploy a virtual virtual and start using it in your project.

## Steps

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1. Request access to LinuxONE Community Cloud
2. First time setup
3. Deploy your LinuxONE virtual server
4. Log in to your LinuxONE virtual server

## Step 1. Request access to LinuxONE Community Cloud.

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1) In a browser, go to the [LinuxONE Community Cloud website](#).



- 2) Click **Try a Virtual Machines on the LinuxONE Community Cloud** now.
- 3) Complete the required fields on the registration form.



**Email address\***

johndoe@email.com

**Password:\***

.....

**Repeat Password:\***

.....

**First Name\***

John

**Last Name\***

Doe

**Organization**

**Country / Region of residence\***

United States

**Description of your project\***

This is your description.

**Event Code**

IBM may use my contact data to keep me informed of products, services and offerings:

**by email.**

4) Complete your registration by clicking **Request your trial**.

You can withdraw your marketing consent at any time by sending an email to [netsupp@us.ibm.com](mailto:netsupp@us.ibm.com). Also you may unsubscribe from receiving marketing emails by clicking the unsubscribe link in each such email.

More information on our processing can be found in the [IBM Privacy Statement](#). By submitting this form, I acknowledge that I have read and understand the IBM Privacy Statement.

I accept the product [Terms and Conditions](#) of this registration form.

**Request your trial**

**Cancel**

5) Check your email for a registration confirmation similar to the following shown. You will need your User ID and Password from this email to sign in to the self service portal.

Hello

Welcome to the IBM LinuxONE Community Cloud hosted at Marist College.

Please click on the link below to activate your account or service entitlement. The link is valid for 48 hours.

[Activate your account or entitlement](#)

If the link doesn't work for you, please copy and paste the link directly into your web browser.

<https://linuxone.cloud.marist.edu/cloud/#/activate?>

If you didn't register an account in LinuxONE Community Cloud, please ignore this email.

Please reach out to us at [linux1@us.ibm.com](mailto:linux1@us.ibm.com) if you have any questions or concerns.

Regards

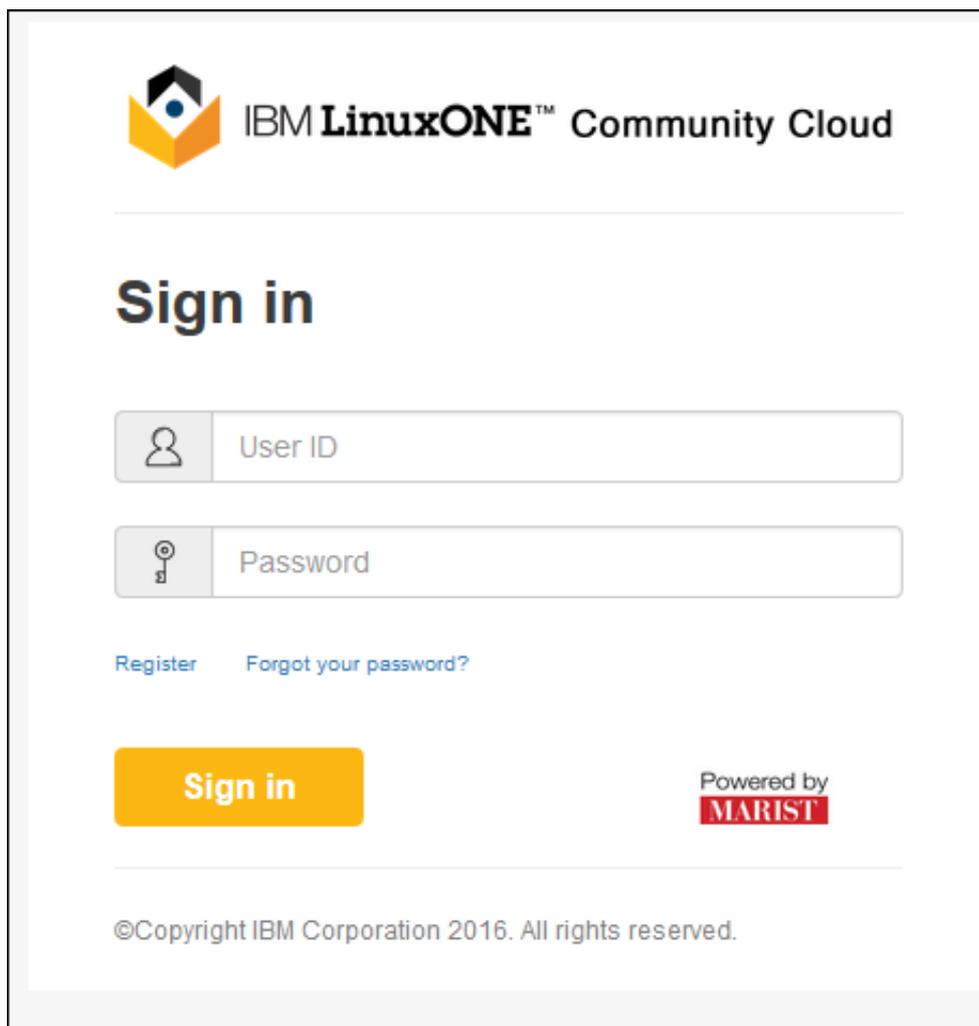
LinuxONE Community Cloud team

\*\*This is a machine generated message, please do not reply.

## First time setup

1) After activating your account, log in.

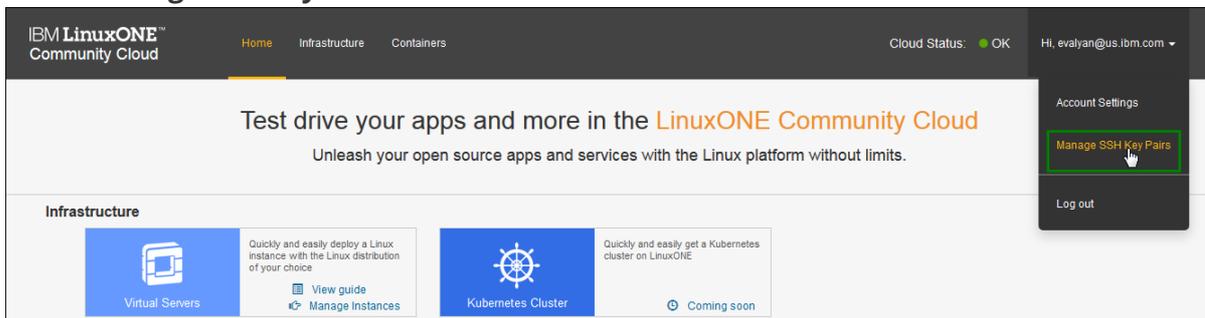
- Enter your **user ID** and the **password** created during registration.
- Click **Sign in**.



The screenshot shows the login interface for IBM LinuxONE Community Cloud. At the top left is the IBM LinuxONE logo, followed by the text "IBM LinuxONE™ Community Cloud". Below this is a horizontal line, and then the heading "Sign in" in a large, bold font. There are two input fields: the first is labeled "User ID" with a person icon, and the second is labeled "Password" with a key icon. Below the input fields are two links: "Register" and "Forgot your password?". A prominent orange "Sign in" button is located below the links. In the bottom right corner, there is a logo for "Powered by MARIST". At the very bottom, a copyright notice reads "©Copyright IBM Corporation 2016. All rights reserved."

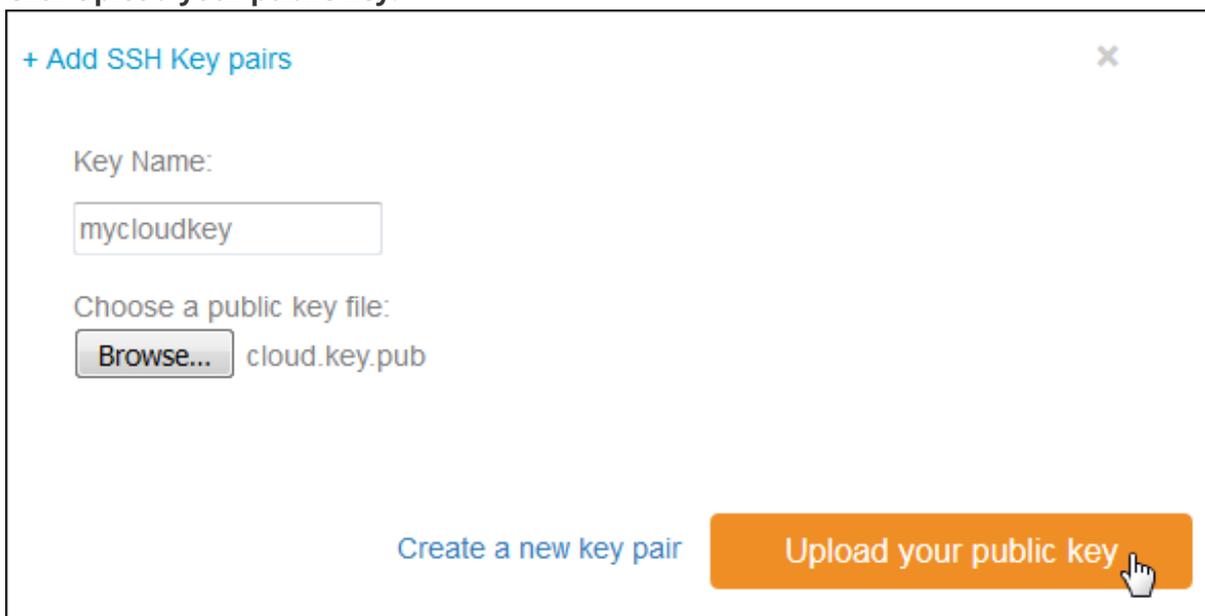
2) Now is also a good time to create or import an SSH key. An SSH public key is required to deploy Linux instance. The instance can only be accessed with your private key that matches the public key.

- Click your **username** from the upper right corner of the Home page.
- Select **Manage SSH Key Pairs**.



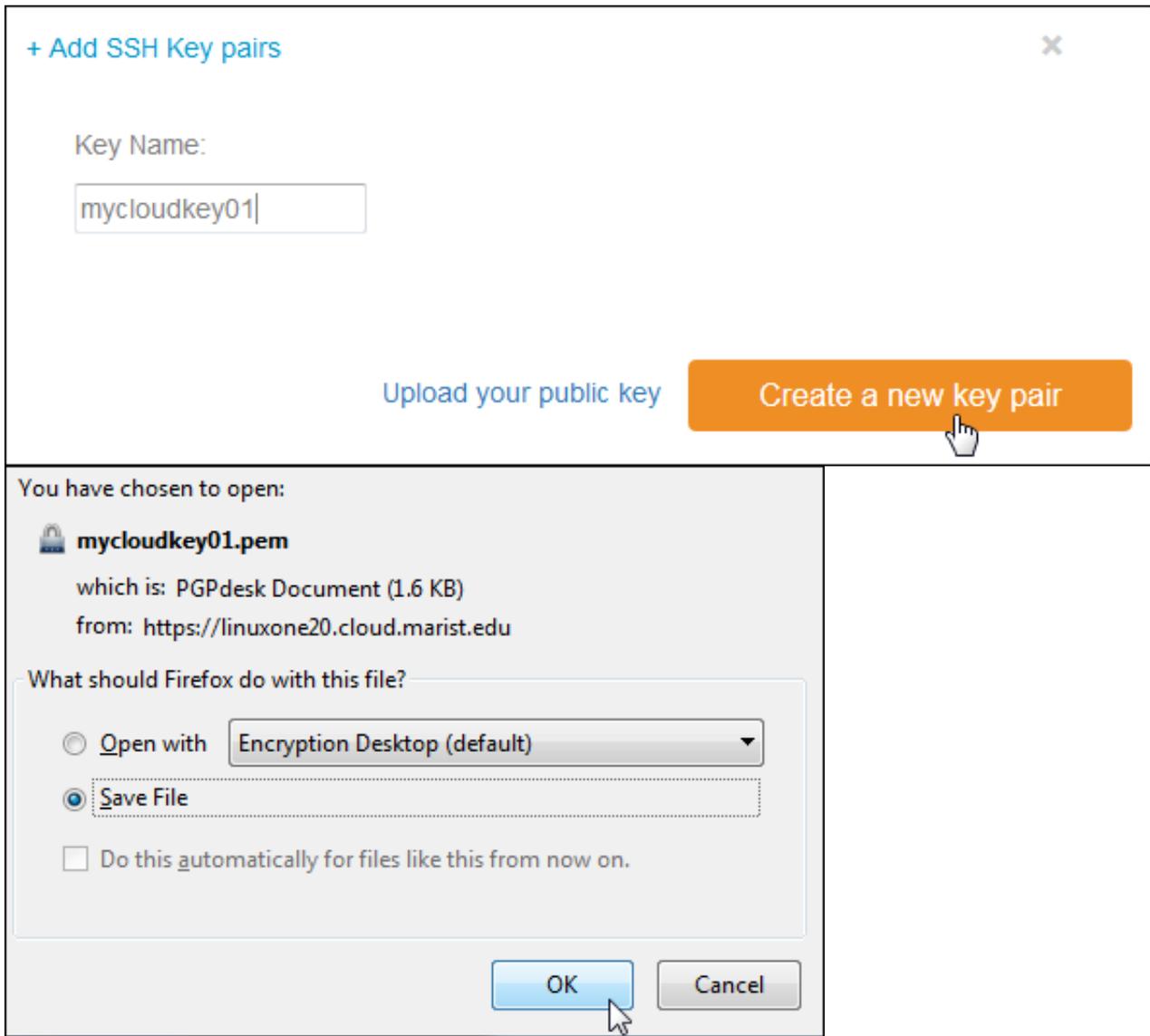
3) If you already have a public SSH key you wish to use with this cloud:

- Click **Import**.
- Enter a **Key Name** for this key.
- Browse your local file system to select the **public key path**.
- Click **Upload your public key**.



4) If you want to create a new SSH key pair:

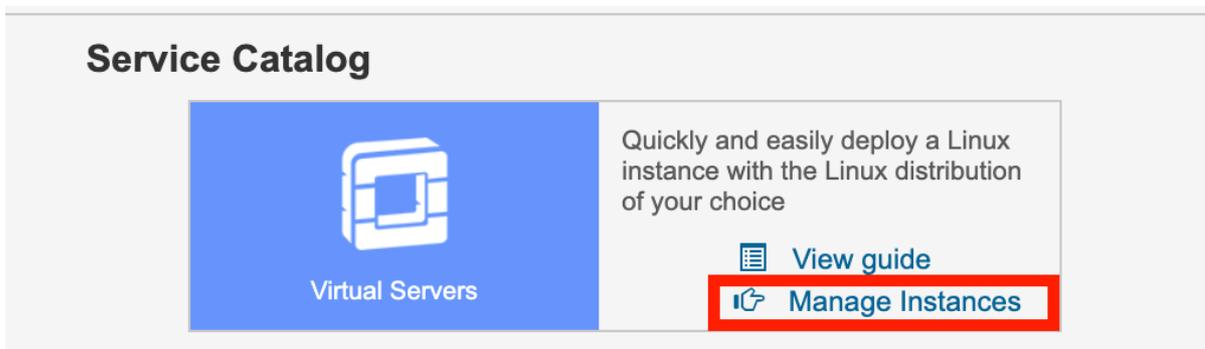
- Click **Create**.
- Enter a **Key Name** for this key.
- Click **Create a new key pair**.
- A pop-up window will appear asking you to save **yourkey.pem** file. This is your private key. Please save it to a secure location. Once this operation is complete, there is no way to retrieve this key. Click **OK** to save the file.



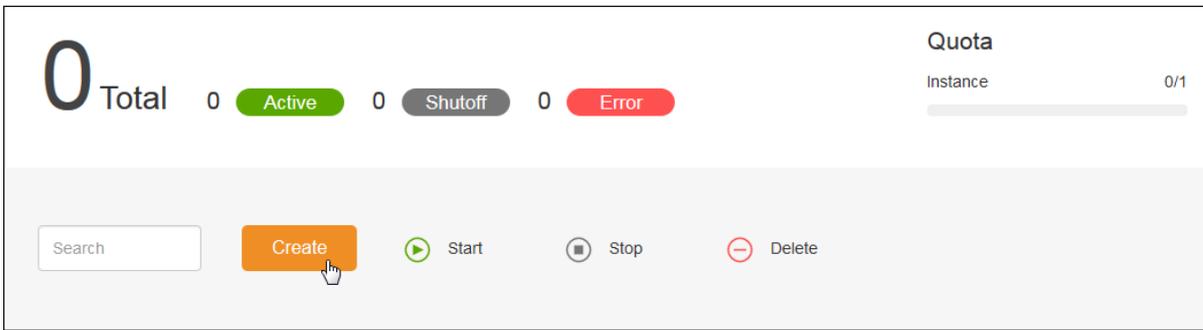
## Deploy your LinuxONE virtual server

1) Go to the **Home** page, **Service Catalog** section and **Virtual Servers** service.

- Click **Manage Instances**.

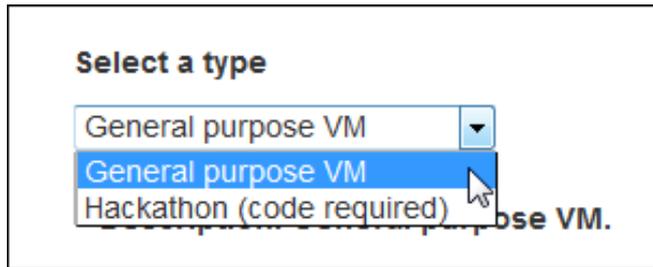


- Click **Create**.

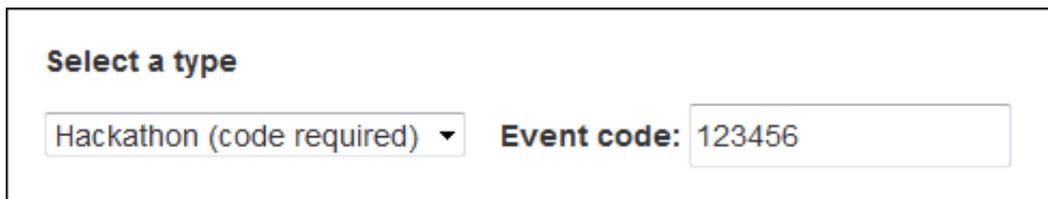


2) Select a virtual server type.

- If this server is for generic purpose use, select **General purpose VM**.



- If this server is for a Hackathon event, select **Hackathon**. A valid event code is required.



3) Provide details information for this instance. Enter:

- An **Instance Name**, without any spaces or special characters.
- An **Instance Description**.



4) Select the desired Linux image.

## Select an Image

RHEL7.6

SLES12SP3

5) Select the SSH key to use.

### Select a SSH Key Pair

mycloudkey mycloudkey01 [Create](#) [Import](#)

6) Verify that all the information is correct and click **Create**.

**CURRENT SELECTION:**

Name:myserver      Key-pair:mycloudkey      Image:RHEL7.6      Flavor:LinuxONE

[Clear](#) [Create](#)

7) Watch the status of your newly deployed instance go through the following phases of start up: *NETWORKING*, *SPAWNING*, *ACTIVE*. When your instance status changes to *ACTIVE*, it is ready for use.

You are in **Infrastructure**

Project: jadayan01@gmail.com

**1** Total    1 **Active**    0 **Shutoff**    0 **Error**

Quota  
Instance 1/1

[Create](#) [Start](#) [Stop](#) [Delete](#)

<input type="checkbox"/>	Name	Status	Type	Linux User	Key Pair	IP Address	Create Date	Details
<input type="checkbox"/>	myserver	<b>ACTIVE</b>	General purpose VM	linux1	mycloudkey	148.100.4.39	Thu 10.Aug.2017 at 19:27:45 UTC	<a href="#">View details</a>

Write down the IP address of your instance. You will need it to log in.

## Log in to your LinuxONE virtual server

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### From Mac OS X or Linux using Terminal

- 1) Open a Terminal application.
- 2) Ensure that you have the SSH private key used to deploy the server.
- 3) If you have not done so already, change the permission bits of this key to 600.

```
1 | # chmod 600 /path/to/key/keyname.pem
```

- 4) Use SSH to access the Linux guest.

- UserID: linux1
- `-i` lets SSH know which identity file to use access the Linux guest.
- Serveripaddress: This was written down from the *Manage Instances* page of the LinuxONE Community Cloud.

```
1 | # ssh -i /path/to/key/keyname.pem linux1@serveripaddress
```

### From Windows using PuTTY

- 1) Set up PuTTY to use the SSH key for your server. Refer to the [Setting up PuTTY on Windows to use ssh private key](#) tutorial.
- 2) Log in to the linux1 user ID.

## Important notes about your server:

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- 1) You can use 'sudo' to execute commands that require root authority.
- 2) It could take up to 10 minutes to format and mount the /data disk. Issue the following command to verify the /data disk is available before continuing:

```
1 | # df -h
```

```
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        2.0G   8.0K  2.0G   1% /dev
tmpfs           2.0G    0  2.0G   0% /dev/shm
tmpfs           2.0G   18M  1.9G   1% /run
tmpfs           2.0G    0  2.0G   0% /sys/fs/cgroup
/dev/dasda2     5.8G  3.0G  2.5G  55% /
/dev/dasda1     388M   46M  323M  13% /boot/zipl
/dev/dasdb1      45G   53M   42G   1% /data
tmpfs           391M    0  391M   0% /run/user/1001
```

3) Firewall is enabled. Only the SSH port is open. Modify the firewall rules with iptables if you need other ports opened.

For SLES:

```
1 | # sudo iptables -I INPUT -p tcp --dport <port#> -j ACCEPT
```

If you want to make your changes permanently, issue this command:

```
1 | # sudo bash -c "iptables-save > /etc/linuxone/iptables.save"
```

For RHEL:

```
1 | # sudo firewall-cmd --zone=public --add-port=<port #>/tcp --permanent  
2 | # sudo firewall-cmd --reload
```

4) To check that the firewall is enabled on both SLES or RHEL:

```
1 | # sudo iptables-save | grep <port #>
```

5) You must log in with the user 'linux1' with your SSH private key. No modification (use of password authentication, for example) is allowed.

6) The user 'root' login is disabled for security reasons. No modification is allowed.

7) There is no backup for your virtual server. It is the end user's responsibility to back up any critical data.