

# **OMERO workshop(s) at IISER, Pune, India**

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**OME Team**

# OMERO Installation

# How to install and run OMERO

1. Get a server
2. Install an Operating System

# Server specification

Complicated... It depends on usage and type of data

- **workshop.openmicroscopy.org**
  - 4 CPU 40 GB RAM
- **ugm.openmicroscopy.org**
  - 16 CPU 100 GB RAM
- **omero.lifesci.dundee.ac.uk**
  - 4 CPU 32 GB RAM (**server only**)
  - 2 CPU 15 GB RAM (**web only**)

# Operating System



**redhat**

**ubuntu** 

# How to install?

## 1. Manually

- [RHEL 9/RockyLinux 9 server installation](#)
- [Ubuntu 22.04 server installation](#)

## 2. Docker: containerisation

- [Docker training](#) (Today's workshop)

## 3. Ansible: configuration management

- [Production playbooks](#)



# Workshop setup

1. Virtual Machine in Kobe, Japan
2. Operating System: Ubuntu 22.04

# Accessing the Virtual Machine (VM) using ssh

1. Download the key `gbi-idc-userX_key` where X is a number e.g. 4
2. Place it into the folder `.ssh` in your home directory. Create a folder `.ssh` if it does not exist.
3. Execute the following command to connect the VM
  - `ssh -i .ssh/gbi-idc-userX_key gbi-idc-userX@134.160.88.72 -t ssh -i .ssh/gbi-idc-userX_key ubuntu@gbi-idc-X`



## Install Docker on the VM

- <https://docs.docker.com/engine/install/ubuntu/>

## Install OMERO on the VM using Docker

- <https://ome.github.io/training-docker/01-intro/>

# Port forwarding

Now Forward ports 8080 for web and 4064 and 4063 for general access

```
ssh -L 8080:<IP_VM>:8080 -L 4064:<IP_VM>:4064 -L 4063:<IP_VM>:4063  
-i .ssh/gbi-idc-userX_key gbi-idc-userX@134.160.88.72 -t ssh  
-i .ssh/gbi-idc-userX_key ubuntu@gbi-idc-X
```

e.g IP\_VM is 10.1.22.35

# Download an image

- Retrieve a sample png image using `wget` command:  
`wget`

<https://downloads.openmicroscopy.org/images/PNG/will/WesternBlots/Hela-frctns-DM1a-5.12.png> `-O /tmp/Hela-frctns-DM1a-5.12.png`

# Import "in-place" the image

Reference: <https://omero.readthedocs.io/en/stable/sysadmins/import-scenarios.html>

```
sudo docker exec -ti -u omero-server ubuntu-  
omeroserver-1 /opt/omero/server/venv3/bin/omero import -  
-transfer=ln_s -s localhost -u root /tmp/Hela-frctns-  
DM1a-5.12.png
```

# Thank you



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