

ONOS+P4 Tutorial VM

The ONOS+P4 tutorial includes hands-on activities where participants will learn how to use ONOS and P4Runtime to control an emulated Mininet network of P4 software switches (BMv2). For this part, we have prepared a VM with all the tools to complete the hands-on exercises.

We suggest downloading the VM and executing the instructions below ahead of the tutorial.

Use one of the following links to **download the VM** (5.3 GB):

- <http://bit.ly/onos-p4-tutorial-vm>
- <http://bit.ly/onos-p4-vm-aws-ap> (backup)

1. Import and run the VM

The VM is in .ova format and has been created using VirtualBox v5.2. To run the VM you can use any modern virtualization system, although we recommend using VirtualBox. For instructions on how to get VirtualBox and import the VM, use the following links:

<https://www.virtualbox.org/wiki/Downloads>

https://docs.oracle.com/cd/E26217_01/E26796/html/qs-import-vm.html

Login credentials

To access the Ubuntu system in the VM use the following credentials (with sudo privileges):

- User: **sdn**
- Password: **rocks**

System requirements

The current configuration of the VM is 4 GB of RAM and 4 core CPU. These are the minimum system requirements to complete the exercises. When imported, the VM takes approx. 8 GB of HDD space, however, you might need up to 15 GB to build and run ONOS.

2. Build ONOS

To complete the exercises you will need to download and build the latest development version of ONOS.

Make sure to execute this step before the tutorial, as when building ONOS for the first time, it will require stable Internet connectivity to download some packages.

Once you are able to run the VM, open a terminal window or SSH into it and type the following commands:

```
cd ~/onos
git pull origin master
buck build onos
```

Building ONOS with the recommended system configuration takes approx. 10 minutes.

3. Questionnaire

Please answer to the following questions to help us best prepare for the tutorial:

<https://goo.gl/forms/57WxqRvyAORCRdG62>

Support

For assistance on how to import and run the VM please write to carmelo@opennetworking.org