

# JTC90 Lab Setup



©2020 Niklaus Hirt / IBM

# Prerequisites for the Lab

- Internet Access
- PC with at least:
  - 4 Core CPU
  - 8GB of RAM / 16GB recommended (16GB needed for the Istio Lab)
  - 40GB of free Disk Space

## Getting set up

Before we dive into the Labs, you need to be able to run the provided Lab VM. It contains a Minikube cluster and all the configurations for the subsequent labs.

# Part 1 - Install Hypervisor

Before we dive into the Labs, you need to be able to run the provided Lab VM. It contains a Minikube cluster and all the configurations for the subsequent labs.

VMWare is the preferred option as it handles nested virtualization that we need for this lab very well. VirtualBox has this option in the latest releases but might prove unstable on certain PCs/Macs (especially the MacBook Pro 16' seems to run into problems).

## Option 1 - Installing VMWare (preferred)

---

If you do not already have VMWare installed, install a 60 days trial for your OS now:

- macOS [VMWare](#)
- Windows [VMWare](#)

## Option 2 - Installing VirtualBox

---

If you do not already have VirtualBox installed, install it for your OS now:

It is important that you use a version equal or newer than 6.1.6!

- macOS [VirtualBox](#), VMware Fusion, HyperKit
- Linux [VirtualBox](#), KVM
- Windows [VirtualBox](#), Hyper-V

## Part 2 - Download the Lab VM on your PC

---

The VM is an 11GB zip file that has to be downloaded.

### Option 1: Download with Aspera (recommended)

The easiest way to download the file is with IBM Aspera high-speed transfer solution.

Download it here:

[Aspera VMWare](#)

[Aspera VirtualBox](#)

### Option 2: Download from Google Drive (not recommended)

You can also download it from Google Drive, which is **much** slower.

Download it here (VMWare only):

[Google Drive VMWare](#)

## Part 3 - Starting the VM

---

### VMWare

1. Open the VM by double-clicking on the Training2020.vmx file.
2. Start the VM from the VmWare interface.

### VirtualBox

**IMPORTANT:** There have been problems reported running VirtualBox and Docker Desktop on Mac at the same time. If you have Docker Desktop running please shut it down first, we'll use Docker in the VM.

1. Import the VM
  - Open VirtualBox and select File>Import Appliance.
  - Select the Training2020.ova file
  - Accept the default values
  - Select "Import"
2. You have to enable nested virtualization in VirtualBox by running the following on your PC/Mac

```
VBoxManage modifyvm Training2020 --nested-hw-virt on
```
3. Start the VM

You can now start the VM from the Virtual Box interface.

## Part 4 - Testing the VM

---

1. When the VM is up and running you can login with

User: training

Pwd: passw0rd

2. You can now open the Firefox browser in the VM and check that you can open a webpage (google.com for example)
3. Open a terminal window (in the dock)
4. Execute the following commands to initialize your Training Environment

```
./welcome.sh
```

Bash

This will pull the latest example code from my GitHub repository start minikube if not already running installs the registry installs the Network Plugin (Cilium) starts the Personal Training Environment

During this you will have to provide a name (your name) that will be used to show your progress in the Instructor Dashboard in order to better assist you.

If you encounter any trouble starting minikube you can try running `./reset.sh`