

Lab - Install the CCNP Virtual Machine

Objectives

Part 1: Prepare a Computer for Virtualization

Part 2: Configure Your Network and Explore the GUI

Background / Scenario

In this lab, you will install the CCNP virtual machine (CCNP VM) in Oracle VirtualBox. After completing the installation, you will explore the GUI interface. The CCNP VM is used in a variety of CCNP ENCOR v8 labs.

Required Resources

- Computer with a minimum of 2 GB of RAM and 20 GB of free disk space
- High-speed internet access to download Oracle VirtualBox and the CCNP VM

Instructions

Part 1: Prepare a Computer for Virtualization

In Part 1, you will download and install desktop virtualization software and the CCNP virtual machine (CCNP VM). Your instructor may provide you with the CCNP VM file.

Note: The following instructions are for Windows 10 using VirtualBox v6.1.4. Your steps may differ slightly. Regardless of the operating system or VirtualBox version, be sure you locate and select the options specified in the following steps.

Step 1: Download and install VirtualBox.

VMware Player and Oracle VirtualBox are two virtualization programs that you can download and install to support the VM images. In this lab, you will use the VirtualBox application.

- Navigate to <https://www.virtualbox.org/>. Click the download link on this page.
- Choose and download the appropriate VirtualBox installation file based on your operating system.
- Download the **Oracle VM VirtualBox Extension Pack** listed on the same download page.
- After the two files are downloaded, run the installer for **VirtualBox** and accept the default installation settings.
- Next, run the install file for **Oracle VM VirtualBox Extension Pack**. VirtualBox opens and asks to install the extension pack. Accept all popup dialogs.
- VirtualBox is open and ready for the next step.

Step 2: Import the CCNP VM.

- Download the CCNP VM from the course resources. Note the location of the downloaded VM.
- In VirtualBox, select **File > Import Appliance**.
- The source of the appliance is **Local File System**. Browse to the location of the downloaded CCNP VM, and click **Open**.
- In the **MAC Address Policy:** dropdown list, select **Generate new MAC addresses for all network adapters**.
- Click **Import** to continue. The import process will take several minutes.

Part 2: Configure Your Network and Explore the GUI

In this part, you will set up the network and explore the desktop.

Step 1: Set up the network.

- Select the imported VM. Click **Settings**.
- In Settings, click **Network**. Select **Bridged Adapter** in the **Attached to:** field. Under the Name field, verify that it is the adapter attached to the same network as the networking devices, such as Cisco 4221. Click **OK** to continue.
- Optional:** You can increase the RAM used by the VM to improve the performance. However, it is recommended that you not allocate more the 50% of your system memory to the VM. This recommendation would change based on your environment and memory usage requirements.

To change the memory allocation, which is currently 2 GB of RAM, click **Settings** again, then click **System**. Adjust the Base Memory to as much as you wish.

Step 2: Start the VM and explore the GUI.

- Start the VM. This will take a few minutes as the Ubuntu image boots and loads the desktop. Close any popup messages.
- Log into the VM using the password **StudentPass** if prompted. **Note:** This password is not recommended for production environment.
- If the bridged network adapter is connected to the internet, select **Firefox**. Navigate to **netacad.com** if desired. Close **Firefox** when done.
- In the later labs, you will use the terminal, PuTTY SSH Client, IDLE, Text Editor, Postman, and Wireshark. Open these applications and explore them.

Step 3: Shut down the VMs.

When you are done with the VM, you can save the machine state of the VM for future use or shut down the VM.

Closing the VM using GUI:

From the Virtual Box **File** menu, choose **Close...**

Click the **Save the machine state** radio button and click **OK**. The next time you start the virtual machine, you will be able to resume working in the operating system in its current state.

The other two options are:

- **Send the shutdown signal:** This simulates pressing the power button on a physical computer.
- **Power off the machine:** This simulates pulling the plug on a physical computer.

Closing the VM using CLI:

To shut down the VM using the command line, you can use the menu options inside the VM or enter **sudo shutdown -h now** command in a terminal window and provide the password **StudentPass** when prompted.

Rebooting the VM:

If you want to reboot the VM, you can use the menu options inside the VM or enter **sudo reboot** command in a terminal and provide the password **StudentPass** when prompted.