**Justice Escalante**

**1/31/23**

**How to install Linux Distributions/Flavors; CentOS**

CentOS

**Set up/Create your VM**

1. To create a VM you must first download one of the respective platforms; VMware, Azure, Virtual Box etc

Here are a few links to get you set up:

* 1. <https://www.virtualbox.org>
  2. <https://azure.microsoft.com/en-us/free/search/>
  3. <https://www.vmware.com>

1. Proceed with the installer found on the web, this will be in your designated download folder.
2. Once done installing, your platform should look something like this if you are using VMware. *Image provided below for better clarity*

Graphical user interface, application

Description automatically generated

**Download the OS**

1. Now that you have a VM platform setup, it’s time to find your flavor/distro. Now there is plenty of distros out there that have great utility and options. Since were doing IT and server-side stuff we will be using CentOS as it’s a RedHat distro. Redhat distros are great for stability and overall server work. It can be found here: <https://www.centos.org/download/> or here <http://isoredirect.centos.org/centos/7/isos/x86_64/>
2. Once downloaded, open your VM application and navigate to the home page and start creating a new VM. If using Virtual Box or any other platform, it might look a bit different. *Image provided below for better clarity*

Graphical user interface, application

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1. Now once you click *Create a New Virtual Machine* it will bring you to the initial configuration page, in this case I have picked typical. This will then bring you to where an iso file as a OS input is needed. We will use an ISO file in this case as it serves as a copy of what would be on normal installer disc. Iso files are great to share with others as they don’t need the physical CD/DVD. *Images provided below for better clarity.*



Graphical user interface

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1. After picking the OS and installing the iso, you should be able to boot up your VM an start the actual installer as seen below. Keep in mind that most of these initial setups with a OS are keyboard only and a mouse is not used, especially with server specific distros.

Graphical user interface, application

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**Dealing with settings during install.**

1. Setting up your settings properly during any installation is very important as there might be things you want to include such as internet connection, hostname. Host name is a big one as it’s sort of like your server’s identification and the way it communicates. Your host name also distinguishes you between possibly other servers on your network. So if two people have the exact hostname on both servers, it can be confusing on which one is which. *Images provided below for better clarity.*

Graphical user interface, text, application

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1. Other features like keyboard layout are also very important if someone is bilingual or runs a different layout.
2. *Hardware during setup is also very important as you don’t want to limit or bottleneck yourself while executing stuff on the server. Some of these important aspects to look for are things such as your CPU, Memory, and storage. Now if you had a server running bare minimum, on 1 core and 1 thread of your main cpu, 5gb of memory, it will be a lot slower than giving the server the hardware that it needs. VMWARE will also give you recommended settings for your hardware if you are in fact unsure of what might be needed. You could always go back and change some of these settings as well.*

Graphical user interface, text, application, email

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1. In this case network connection was disabled by default, so it had to be enabled in the settings menu of the installer. Network access is 100% needed for your distro especially if you’re doing server work or any form of communication that’s not just local.

**Sign in**

1. When your OS is fully installed and the VM is powered up, you should see a terminal on boot up. Sign in with your respective details that you put in the installer. Be aware that most Linux distros don’t show you when your pass is being typed letter by letter so it will look blank when you type it so don’t worry. *Image provided below for better clarity*
2. *Now if you forgot your sign information, you could sign in as the root user and change it with the command* ***passwd <username>.***

A picture containing text

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**Make sure your connected.**

1. There are a few ways you can test to see if you are connected properly to the internet, one easy and preinstalled feature you could use with Linux is ping.
2. If the network is setup correctly ping should work verifying you set it up properly, if not ping should not work.
3. Here is a great example of how ping is used, the command in the screenshot below *is ping -3 5 youtube.com. Image provided below for better clarity*

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**Integrate a file sharing service**

1. There are a few file sharing services you can use for Linux, SCP, SmarTY, Putty etc, but use what’s best for you. In this case SCP was installed using the command: ***sudo yum install open-sshclients****. Image provided below for better clarity*

Text

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1. To validate that SCP is working properly, you must first find your ip to connect using a command in the terminal. The command in use would be ***ifconfig***: it should look something like this if done properly, with your respective properties listed.
2. The information you will be looking for when this command is used is your inet ip, which in this case mine is displayed as *192.168.253.135.* To shoot files over to this server that ip would be needed. There are many ways to use the SCP command as well refer to <https://linuxize.com/post/how-to-use-scp-command-to-securely-transfer-files/> for more information. *Image provided below for better clarity*

Text

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1. In the images provided below I have used the ip from another server I have set up with Ubuntu, the ip was pulled using the same command: the ip in this case is *192.168.253.136*
2. I have also used the command ***touch testingSCP***just to make a file that could be transferred for documentation purposes that can be seen below.
3. Now you can test to see if the SCP command and everything you have done up to this point has worked! In the image below you can see the command in the terminal as ***scp testingSCP 192.168.253.136:/home/jescalante***has been executed and its result.
4. In the second screen shot is the other Ubuntu server running commands such as ***ls*** and ***pwd***that have properties to show your current directory(pwd) and what’s in your current directory(ls) *Images provided below for better clarity*

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1. In this screenshot you can see SCP executed correctly as the file ***testingSCP***was transferred from one machine to the other!