How to install a Linux server distribution

**Introduction**

This document will provide instructions on how to install a Linux server distribution onto a virtual machine using a Type 2 Hypervisor. The guide will be written with CentOS Stream 9 in mind

**Prerequisites**

* Tier 2 Hypervisor (Guide will be utilizing VMware Workstation 17)
* Internet access to download CentOS
* PuTTY or another SSH tool

Step 1: Download CentOS Server

1. The first and arguably most important step is to select your preferred server distribution or as some call it, your favorite flavor of Linux. The easiest way to do this is to go onto your favorite search engine and lookup the website for them. Today we will be using CentOS.
2. As we have selected CentOS, we will now head to the CentOS’ website (<https://www.centos.org/download/>) then click on “x86\_64” to download the .isoA screenshot of a computer

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Step 2: Create a Virtual Machine with CentOS Server

1. Now that you have CentOS Server downloaded, you need to open your hypervisor which for the purpose of this guide will be VMware Workstation 17.
2. Once opened you will click on player > File > New Virtual Machine A screenshot of a computer

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3. You will be prompted for your name and setup a username and password. Then after submitting that information you will be prompted to name your Virtual Machine. Make sure to name your VM with it’s purpose in mind.
4. After entering your information, you will be asked to either split your vDisks into server files or a single file. For the purpose of this guide we will be storing the vDisk as a single file.
5. After selecting the vDisk style, you will be prompted to finish the server and have the option of powering on the virtual machine after it’s creation. For the purpose of the guide, we will power on the virtual machine so tick the box that provides us the option and click finish.

A screenshot of a computer

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Step 3: Setup CentOS Server

1. Once the server is powered on, you will be prompted to select a language for your server. For the purpose of the guide and the language it’s written in, we will be selecting English. After it will also ask the language of the keyboard configuration, we will also be selecting English there.
2. For Server installation, select Server and ensure it’s the one that does not say “Server with GUI” as we will be going for a CLI based server.
3. Setup your user as well as your passwords and after finishing your screen should look like the screenshot below. Once finished, press begin installation A screenshot of a computer

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4. Once finshed installing it will ask you to reboot the system, do so.

Step 4: Connecting to our CentOS Server

1. Now that the server is created we must connect to our server. To sign into the server, use the root account login.

Localhost login: root

Password: yoursecurepasswordhere

A screenshot of a computer

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1. Now we must setup the user account and pasword that you will be using as using root for your daily driver is extremely unsafe. To do so, type adduser youruseraccounthere (put your own username instead of my placeholder). After passwd yourpasswordhere (put your own password instead of my placeholder).
2. Now we need to find the IP of the server. To do so, type ifconfig to see your IP. My server’s IP is 192.168.186.131.

A screenshot of a computer

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1. Open PuTTY or whichever SSH tool you prefer and enter the IP address of your server. My server’s IP address is 192.168.186.131 so that is the address we will type in the IP address bar and the port we will be using is port 22 (SSH).
2. PuTTY will now bring up the server login window where we will have to enter our username and password that we made earlier. Sign in correct and you will be greated with the login splash screen of your server.

Step 5: Testing Internet Connectivity

1. Now that we are connected to our server, lets see if we can access the internet with it. To do so, type ping 8.8.8.8. This action pings the Google DNS server to see if it can connect out. If you are successful, you will see packets received from 8.8.8.8 with no packet loss (press Control+C to end the ping test)

A computer screen shot of a black screen

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Step 6: Transferring a file from one server to another

1. To transfer a file, we must first have a file so lets create one. Type ‘touch worldhello.txt’ and press enter. You have now created a simple text file that we are going to use to transfer to a server.
2. Now that we have our file, we will use SCP to transfer the file to another server with the IP of 192.168.186.130.
3. Enter the following command: scp /home/flaureano/worldhello.txt [flaureano@192.168.186.130:/home/flaureano/](mailto:flaureano@192.168.186.130:/home/flaureano/) (replace the directory of the home and destination with your own server and the destination of your choice)
4. You will get a line asking if you want to trust the host as you have not connected before, type yes.
5. You will then be prompted to sign into the password of the user you are signing into. Enter the password and the file will transferA computer screen shot of a computer screen

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6. Once transferred, check the other server to make sure that the file came over and you are finished! A black screen with white text and green squares

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Final Review

Summary of actions taken:

* Installed CentOS without GUI on VMware Workstation 17
* Configured user account
* Enabled SSH and tested remote functionality with PuTTY
* Tested and confirmed internet connectivity by pinging Google DNS (8.8.8.8)
* Transferred files between two servers using SCP