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| OpenStack supplemental instructions | Version 1: 2020-02-25 |
| These supplemental instructions will guide the student through downloading and install a Windows Server 2012 qcow2 image in VMware Workstation 15. | Create Server 2012 image on OpenStack in VMware Workstation 15 |

**Attributions:**

This material is based upon work supported by the National Science Foundation under Grant No. (NSF 1601166).

C:\Users\ronaldsharman\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\OpenStack_Logo_Horizontal.eps Portions of this document, in whole or part, were sourced from the OpenStack website at https://OpenStack.org

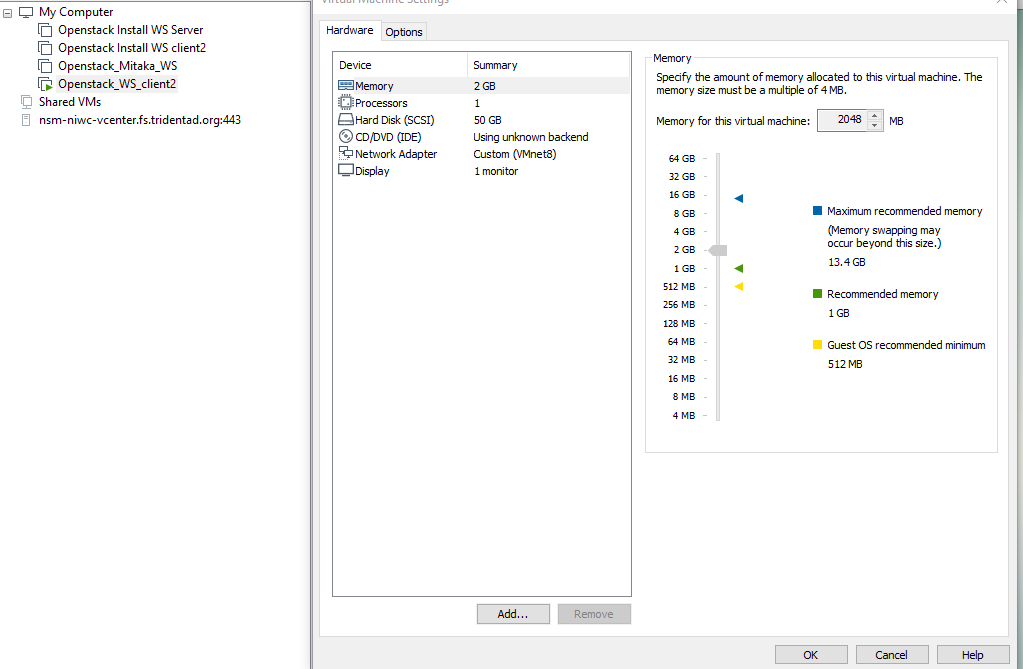
**General information:**

* Tested on a Dell Optiplex 980 i7-2600 @3.40GHz and 16 GB memory 64-bit OS
* Host PC must support virtualizationInstall VMware Workstation 12.5 on host PC
* The **Openstack\_Mitaka\_WS** username is **root** and the password is **P@ssword**
* The **Openstack\_WS\_client2** username is **student** and the password is **P@ssword**
* The **Openstack\_WS\_client2** **root user** password is **P@ssword**

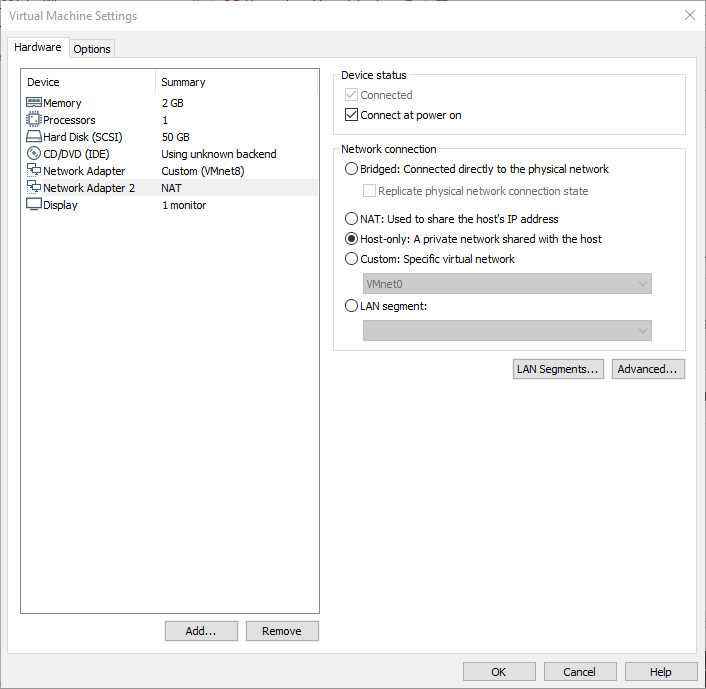
1. Open <https://cloudbase.it/windows-cloud-images/> and click Download Evaluation Images, accept the ELUA and click on KVM (QCOW2). Save the image to the host PC downloads folder.



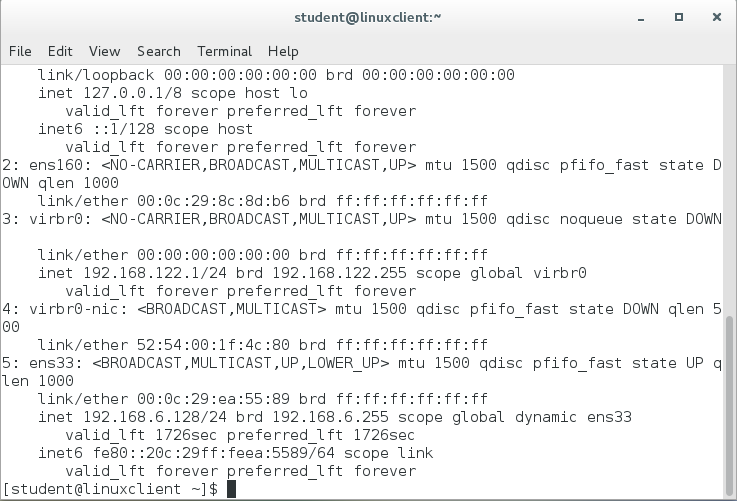
1. Open VMware workstation and power on the OpenStack\_WS\_client2 VM and log in. Right click on the OpenStack\_WS\_client2 and click on settings



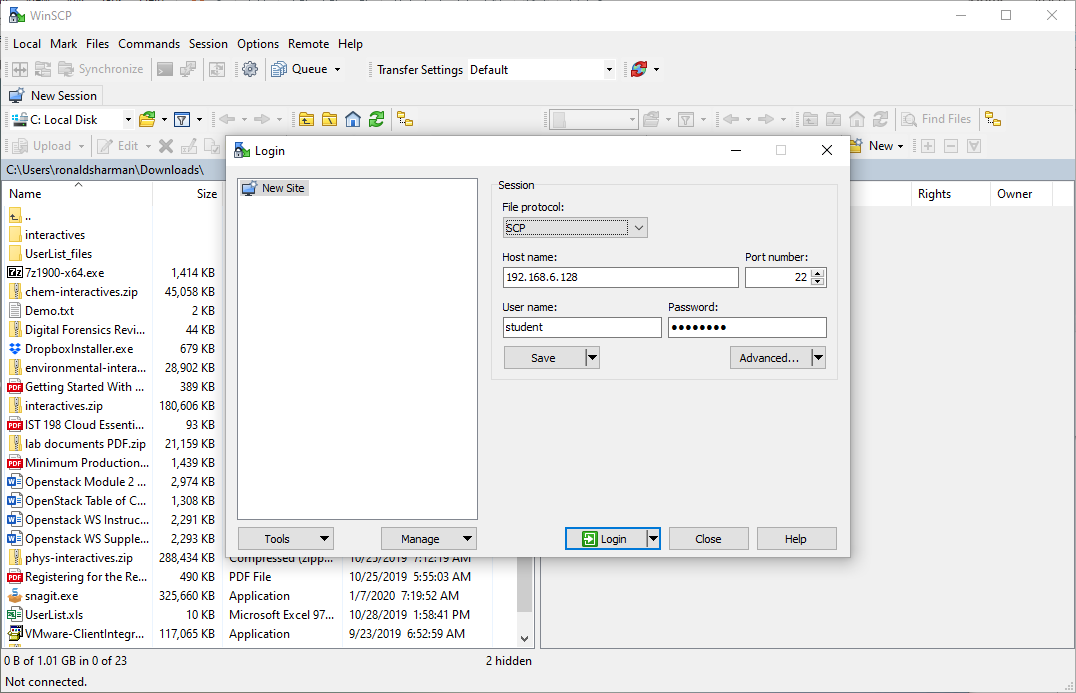
1. Uncheck the Connected and Connected at power on boxes on the (VMnet8) Network Adapter and add a new network adapter and select Host-only: A private network shared with the host. Click OK.



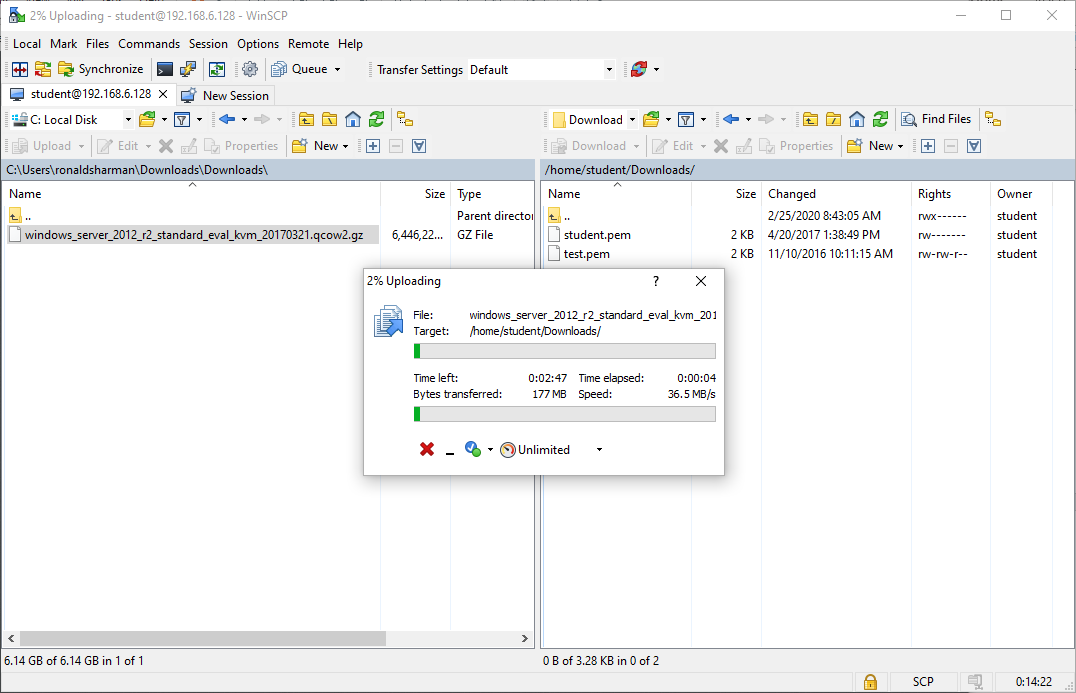
1. Return to the client2 VM and open a terminal window and enter ip address. Verify that there is an ens33 with a 192.168.X.X address. Record this address.



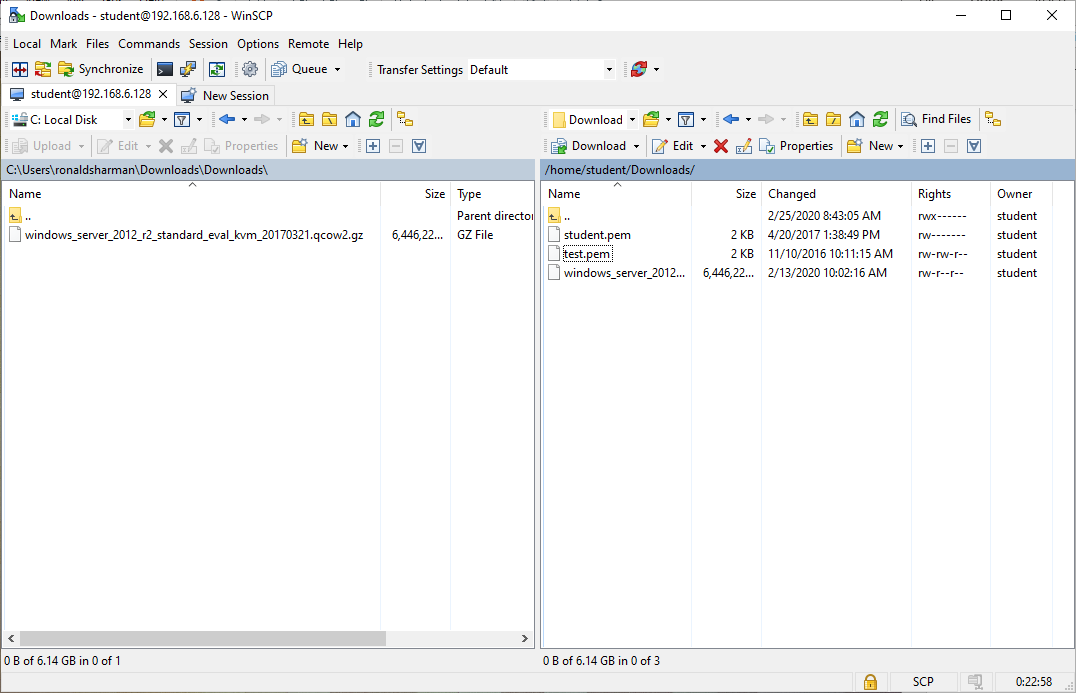
1. On the host PC, open WinSCP and configure for SCP to the client2 VM using the IP address recorded from the previous step. Click Login.



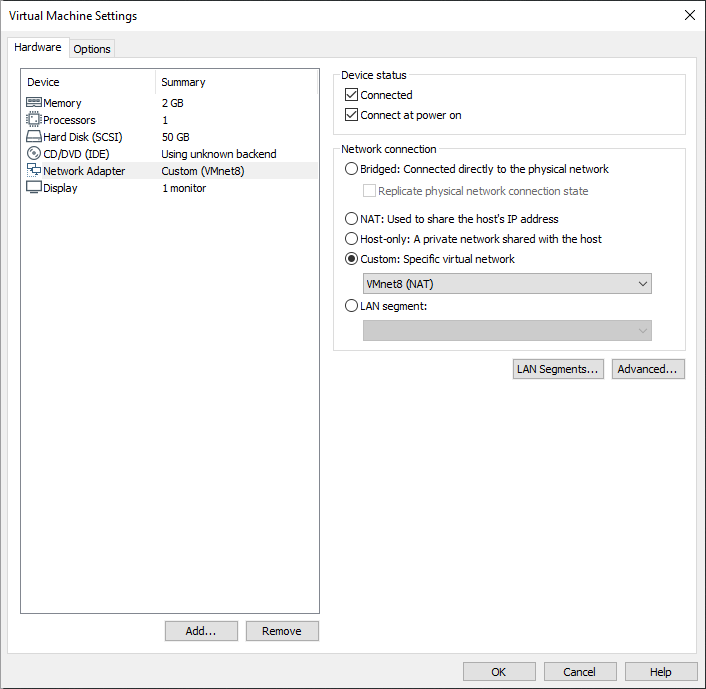
1. You should see the host PC on the left and the client2 VM on the right. Open the Download folders on both the host and client2 and select the windows\_server\_2012\_r2\_standard\_eval\_kvm\_20170321.qcow2.gz file (or whatever Windows eval image you downloaded) on the host PC and drag it to the client2 VM.



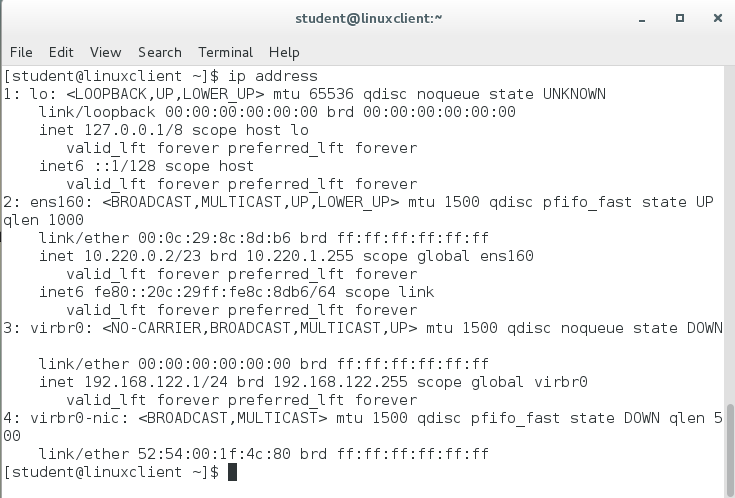
1. After completing the previous step, you should see this. If so, close WinSCP.



1. Return to the VMware settings for the clien2 VM and remove the Network Adapter2 and select Connected and Connect at power on for the Network Adapter Custom (VMnet8). Click OK.



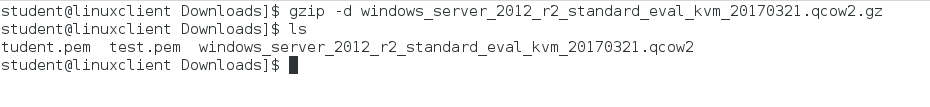
1. Return to the terminal window on the client2 VM and run the ip address command again. Verify that network has the ens160 interface up.



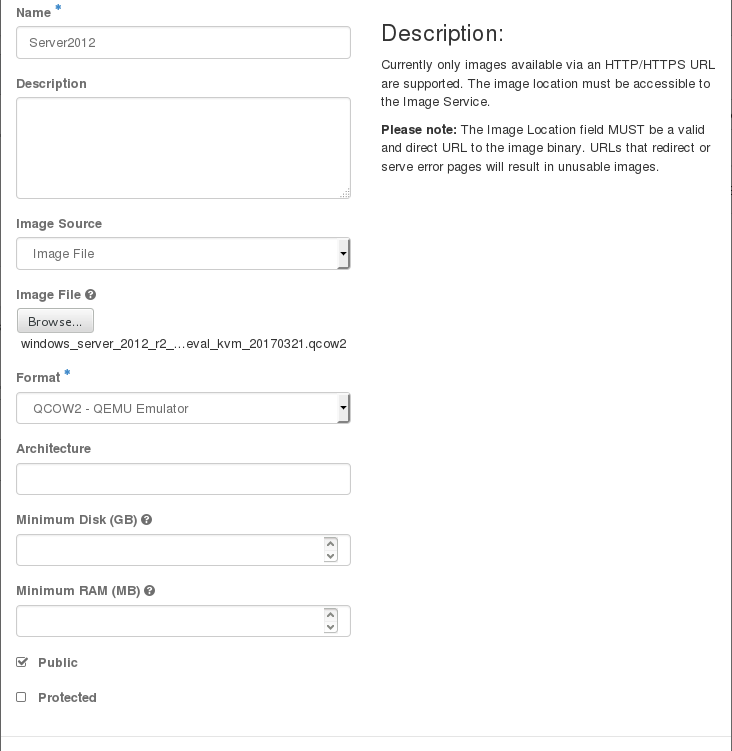
1. Change to the /home/student/Downloads folder and verify the image is present. Then run the command **gzip -d windows\_server\_2012\_r2\_standard\_eval\_kvm\_20170312.qcow2.gz** command. This command will take a few minutes to complete



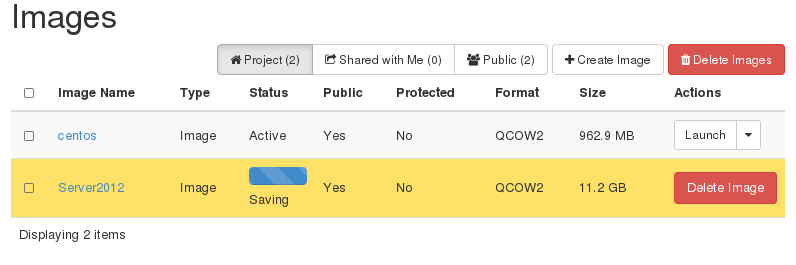
1. When completed, run the **ls** command and you should see the windows image without the .gz at the end. The image is ready to be deployed.

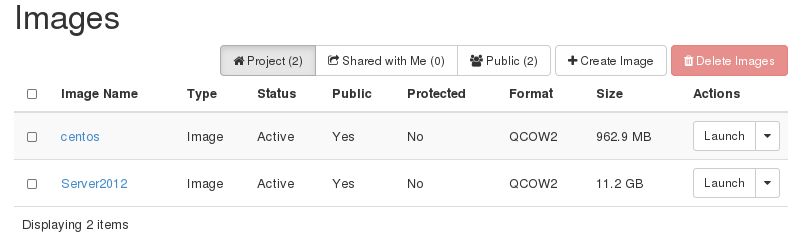


1. Login to the OpenStack dashboard as admin and open the projects>images tab, then click on Create Image. Name: enter **Server2012**, Image Source: **Image File**, Browse: **downloads folder and select the server2012 qcow2** file, Format: **QCOW2 – QEMU Emulator** and check the **Public box**. Click Create Image.



1. OpenStack will take a few minutes to finish creating the image. After the image is successfully created, delete the original file from the downloads folder to conserve disk space. Shown in progress and completed.





1. The image is ready for the Server2012 lab.