**NCL OpenStack VM Testing Intern Assignment**

**Image Testing Manual**

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Procedure to test the public VM images on NCL OpenStack [Beta] platform is listed below.

1. Make sure to have an account beforehand (both for logging in to the OpenStack platform and logging in to the terminal to remotely access the instance). Follow the **Windows** or **Linux VM User Manual** to create instances from the image you want to test.
2. In the OpenStack account, navigate to **Project -> Compute -> Images**. There, you will be able to see all 37 public images.
3. On the image row you want to test, click **Launch** and proceed to create instance as outlined in the **Windows** or **Linux VM User Manual**.
4. While creating instance, make sure the **Source** section is aligned with the image type you want to test. For example, if you are testing **ARP-Kali**, then the **Source** section should have **ARP-Kali** in the **Allocated** section.
5. Proceed to remotely access the instance as outlined in the **Windows** or **Linux VM User Manual**.
6. After you have successfully remote access the instance, open the **Terminal** or **Command Prompt** on the remote desktop.
7. To obtain specifications of the image, run the following commands on the **Terminal** or **Command Prompt**. These commands are also used in the Windows batch files and the Linux bash script that automatically generates the system information in one folder.
   1. For **Windows VM Images**

|  |  |
| --- | --- |
| Command | Description |
| cd Desktop | Change current working directory to Desktop so the output folder is created in Desktop |
| mkdir Specs | Create folder called “Specs” |
| cd Specs | Change current working directory to the newly created folder “Specs” |
| systeminfo > sysinfo.txt | Get output of systeminfo, which contains the hardware details of the image such as OS name & version, processor, and system type, and save in a txt file called sysinfo.txt |
| ipconfig /all > networkinfo.txt | Get output of ipconfig, which contains the network information of the image such as IPv4 and IPv6 configurations and IP addresses, and save in a txt file called networkinfo.txt |
| wmic cpu get name | Gets name of processor |
| wmic diskdrive get name,model,size | Gets the name, model, and size of the storage drives in the image |
| wmic product get name,version | Gets the name and version of installed packages in the image |

* 1. For **Linux VM Images**

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| --- | --- |
| Command | Description |
| cd Desktop | Change current working directory to Desktop so the output folder is created in Desktop |
| mkdir Specs | Create folder called “Specs” |
| cd Specs | Change current working directory to the newly created folder “Specs” |
| lscpu > cpu.txt | Gets processor details and save in a txt file called cpu.txt |
| free –h | Outputs the amount of RAM in gigabytes |
| lsb\_release –a > os.txt | Outputs the OS version and save in a txt file called os.txt |
| uname –a | Same as above, is used when lsb\_release is not available in the image |
| apt list --installed > installed.txt | Outputs a list of installed packages in the image, and stores the list in a txt file called installed.txt |
| ip a > networkinfo.txt | Gets the network configurations of the image, stores in a txt file called networkinfo.txt  Check whether DHCP is enabled by looking for ‘dynamic’ flag under inet (IPv4) |
| df -h --total > diskspace.txt | Gets the storage disk information (free space, total space etc) and stores in a txt file called diskspace.txt |
| apt list -a xrdp | Checks whether a certain package is installed in the image. In this example, it checks whether xrdp is installed |