**14 - R710 Proxmox - OpenStack Cluster - microstack on prox2**

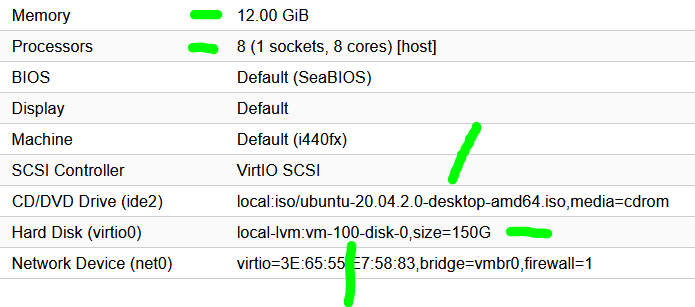
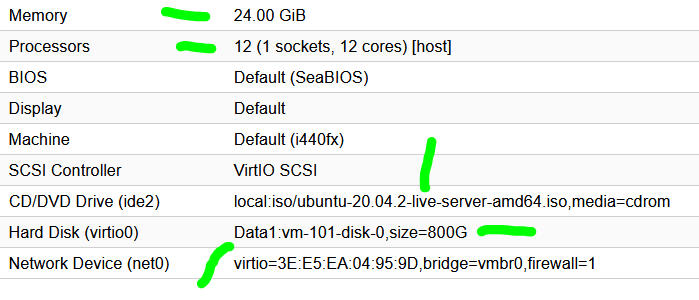
**Log in to Proxmox on prox2:**

1. In Firefox, go to : https://192.168.124.**221**:8006

User: root

Password : <whatever>

**microstack install:**

1. Set up two VM’s
2. 1st VM:  
   **Control Node**, called **os1** with hardware as:  
     
   and install Ubuntu Desktop 20.04LTS as per Doc #12  
   Ensure its host name is: **os1** and make its fixed IP: 192.168.124.**222**
3. 2nd VM:  
   **Compute Node**, called **cn1** with hardware as:  
     
   and install Ubuntu Server 20.04LTS as per Doc #9  
   Ensure its host name is: **cn1** and make its fixed IP: 192.168.124.**223**
4. Setting up the microstack software requires a number of interacting steps …  
   (ssh into the Control Node and Compute Node with separate Microsoft Powershell terminals which allows the following commands to be cut & paste’d)
5. On Control Node:  
   **sudo snap install microstack --beta –devmode**

**(or** sudo snap install microstack --devmode –edge)  
**sudo microstack init --auto --control**

1. On Compute Node:  
   **sudo snap install microstack --beta –devmode  
   (or** sudo snap install microstack --devmode –edge)
2. Then back on Control Node (for each compute node get separate values):  
   **sudo microstack add-compute**  
   use the <value returned> back …  
   On Compute Node:  
   **sudo microstack init --auto --compute --join** <value returned>
3. On Control Node, to get the admin password:  
   **sudo snap get microstack config.credentials.keystone-password**  
   for use in Firefox on the Control Node Desktop at:  
   **https://10.20.20.1**

Or  
**http://10.20.20.1**

1. NOTE: might have to run the command to get admin key every time in terminal before above works
2. Terraform in Control Node Desktop:  
   Follow instructions:  
   <https://learn.hashicorp.com/tutorials/terraform/install-cli>  
   and add terraform tab-complete:  
   **terraform -install-autocomplete**
3. In the openstack GUI, go into Admin->Settings->Change Password  
   and change to standard one.
4. On Control Node:  
   **sudo snap install openstackclients**
5. Upload image … (Control Node):  
   Do: Admin->OpenStack RC File  
   and in a project folder save it to **admin-openrc.sh**  
   then run:  
   **source admin-openrc.sh**  
   then download Ubuntu 20.04 LTS image with:  
   **wget**[**http://cloud-images.ubuntu.com/focal/current/focal-server-cloudimg-amd64.img**](http://cloud-images.ubuntu.com/focal/current/focal-server-cloudimg-amd64.img)  
   then do:  
   **openstack image create --container-format bare --disk-format qcow2 --file focal-server-cloudimg-amd64.img Ubuntu-20.04**
6. \*\* doc the external network name …

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Links:

<https://ubuntu.com/tutorials/microstack-get-started#1-overview>

<https://microstack.run/docs>

<https://microstack.run/#get-started>

<https://microstack.run/docs/pro-tips>

<https://opendev.org/x/microstack/src/branch/configure-hook>

<https://opendev.org/x/microstack>

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google search :

openstack basic tutorial

openstack tutorial for beginners pdf

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## Accessing the Control node Web interface from Linux on Windows

Using WSL terminal:

Set up port forwarding, (use A8's ubuntu password, then use VM on prox2's password)

**sudo ssh -N -L 8001:10.20.20.1:80 rhys@192.168.124.222**

then in firefox:

**http://localhost:8001**

This takes ~5+ seconds to respond (sometimes).

log in as **admin** with password returned from server command keystone-password

(get this by logging into Control Node using Windows Power shell so that the returned password can be cut and pasted into Windows Firefox when logging in as admin)

Then change admin password to an easier one.

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sudo apt install qemu-utils

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Compute node init with debug:

sudo microstack init --auto --compute --join hKhob3N0bmFtZa8xOTIuMTY4LjEyNC4yMjKrZmluZ2VycHJpbnTEIO+kG2JsEzAekL8cTHM5INXKqm9K+ZkswwZHYhpIsUYzomlk2SBhMDA4NDRlZGM1NTI0ZGM5YWMwNDI2OTE3ZjJmNDhiZKZzZWNyZXTZIEtiWVZDTTZJcXJPOUZZVlJRRkxIYS1nNVduNUk4T3dy --debug

2021-04-17 08:48:00,360 - microstack\_init - INFO - Configuring clustering ...

2021-04-17 08:48:00,627 - microstack\_init - INFO - Setting up as a compute node.

2021-04-17 08:48:07,014 - microstack\_init - INFO - Configuring networking ...

2021-04-17 08:48:10,348 - microstack\_init - DEBUG - ++ snapctl get config.network.ext-cidr

2021-04-17 08:48:10,354 - microstack\_init - DEBUG - + extcidr=10.20.20.1/24

2021-04-17 08:48:10,355 - microstack\_init - DEBUG - ++ snapctl get config.network.control-ip

2021-04-17 08:48:10,361 - microstack\_init - DEBUG - + controlip=192.168.124.222

2021-04-17 08:48:10,361 - microstack\_init - DEBUG - ++ snapctl get config.network.external-bridge-name

2021-04-17 08:48:10,367 - microstack\_init - DEBUG - + external\_bridge\_name=br-ex

2021-04-17 08:48:10,367 - microstack\_init - DEBUG - ++ snapctl get config.network.physnet-name

2021-04-17 08:48:10,373 - microstack\_init - DEBUG - + physnet\_name=physnet1

2021-04-17 08:48:10,374 - microstack\_init - DEBUG - + ovs-vsctl --retry --may-exist add-br br-ex -- set bridge br-ex datapath\_type=system protocols=OpenFlow13,OpenFlow15

2021-04-17 08:48:10,383 - microstack\_init - DEBUG - + ovs-vsctl set open . external-ids:ovn-bridge-mappings=physnet1:br-ex

2021-04-17 08:48:10,392 - microstack\_init - DEBUG - + ip address add 10.20.20.1/24 dev br-ex

2021-04-17 08:48:10,395 - microstack\_init - DEBUG - RTNETLINK answers: File exists

2021-04-17 08:48:10,395 - microstack\_init - DEBUG - + :

2021-04-17 08:48:10,395 - microstack\_init - DEBUG - + ip link set br-ex up

2021-04-17 08:48:10,397 - microstack\_init - DEBUG - + iptables-legacy -w -t nat -A POSTROUTING -s 10.20.20.1/24 '!' -d 10.20.20.1/24 -j MASQUERADE

2021-04-17 08:48:10,455 - microstack\_init - DEBUG - + exit 0

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sudo snap set microstack config.credentials.keystone-password=<your password>

the above did not help

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