Infoblox

DEPLOYMENT GUIDE

NetMRI Deployment Guide on KVM

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Executive Summary

Infoblox NetMRI is the leading automation solution for network change, configuration, security policy, and compliance management—and is the only solution today that manages both traditional and virtualized VRF networking for multi vendor environments with a single appliance.

This deployment guide shows how to deploy NetMRI with the associated sandbox in a KVM environment.

Requirements

- Server running Centos 7 or Red Hat
- Configured interface bridge
- KVM
- NetMRI version 7.4.1 and above.
- NetMRI licenses

Instructions

Deploying the NetMRI VM on KVM

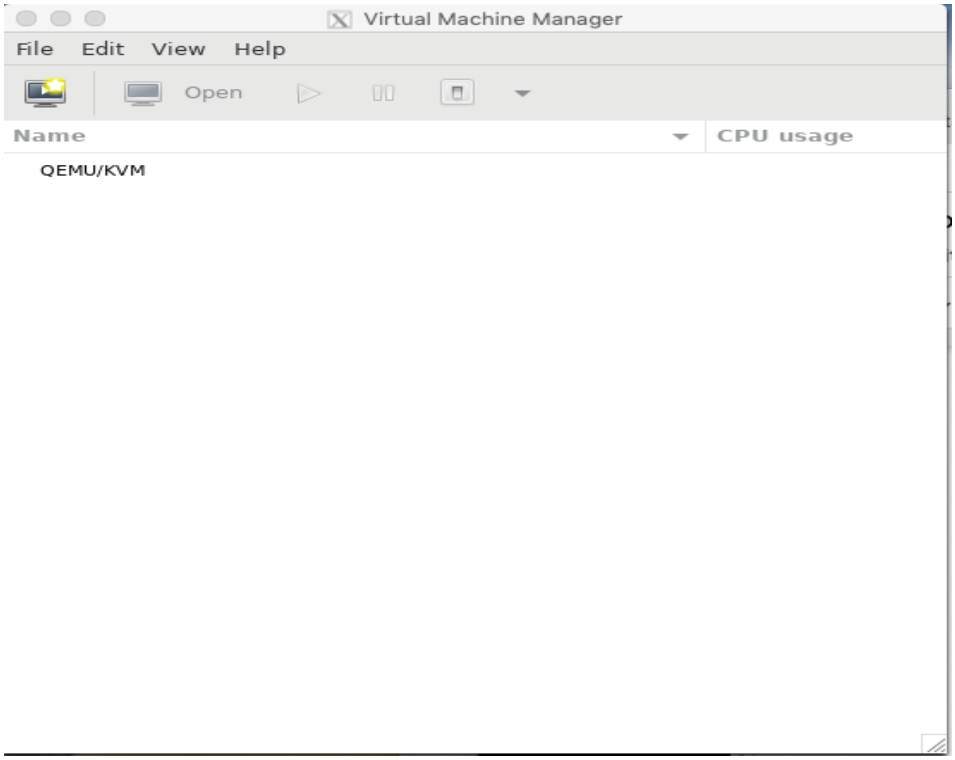
1. Download the NetMRI qcow image from the Infoblox support site.

NetMRI for KVM

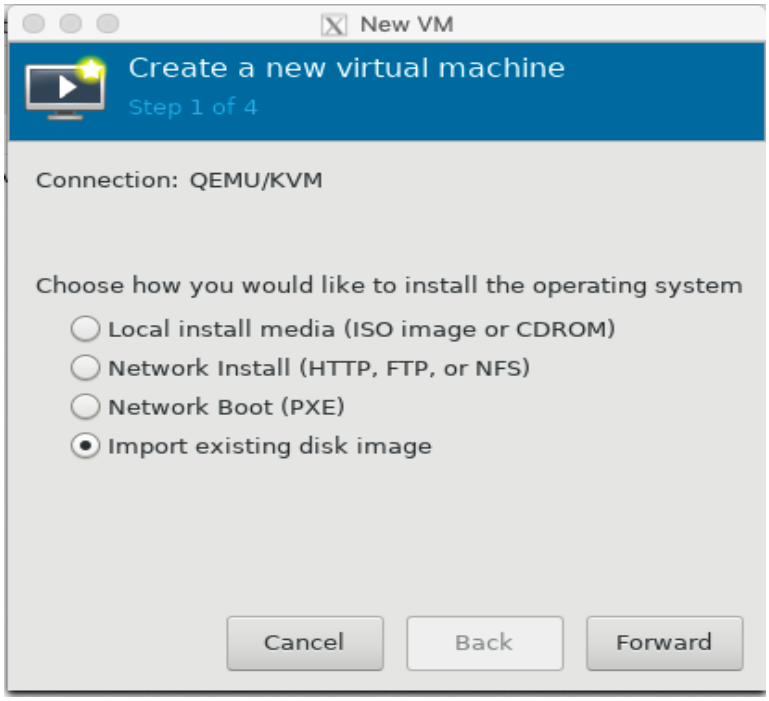
NetMRI for KVM consists of the following downloads.

File	Size / MD5 Check Sum
NetMRI 7.4.1 QCOW2.zip	4.3GB, md5: 5daa68c1885d9276179e17eb2015795b
NetMRI Sandbox for KVM	
File	Size / MD5 Check Sum
NetMRI QCOW2 Sandbox	360MB, md5: a3b26a84395bb233874866df5d87619f

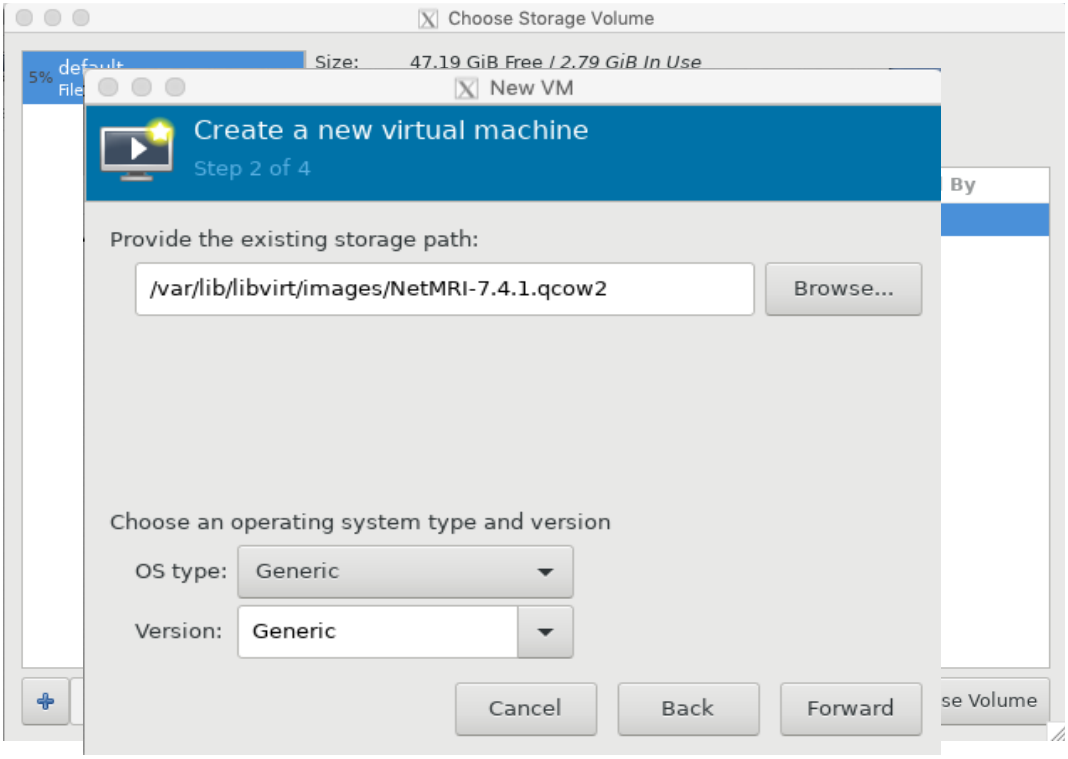
2. Unzip the NetMRI qcow2 image.
3. Copy the image to the /var/lib/libvirt/images subdirectory on the KVM server.
4. Run the virt-manager application.



5. Click on the left button to install the NetMRI qcow2 image. Import existing disk image. Click Forward.



6. Click on the ‘Browse’ button to find the images. Select the NetMRI-7.4.1.qcow2 image and click on ‘Choose Volume’.

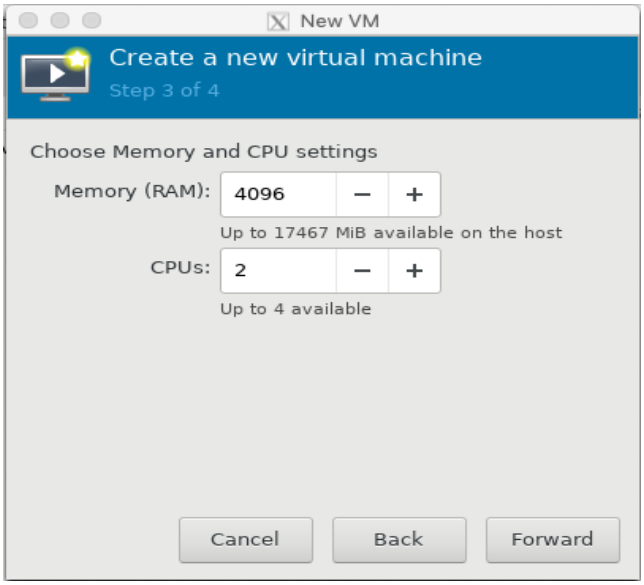


7. After the storage path has been populated, click on the ‘Forward’ button.

8. CPU and Memory should be configured in function of the anticipated number of devices you plan to manage. Refer to the following table for guidance on the required resources.

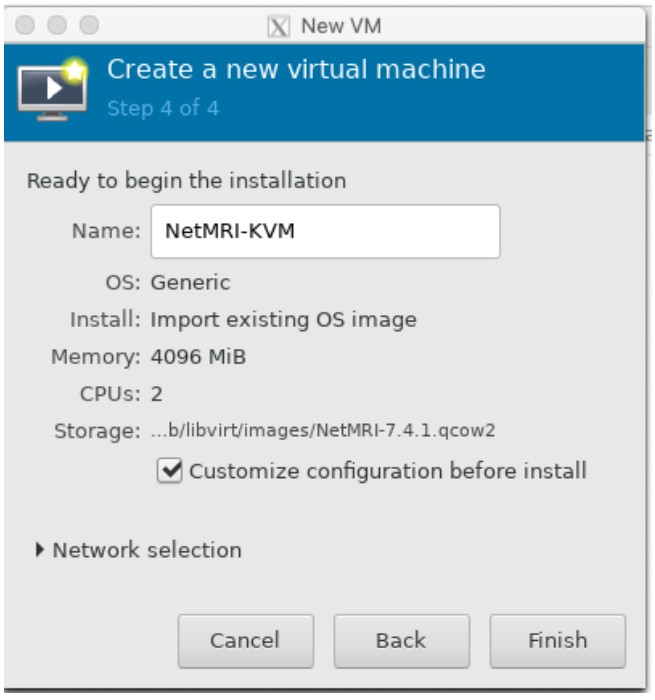
Supported Numnber of Devices	CPU	Mem
5,000	40	128
3,500	28	64
2,500	20	44
1,750	14	36
1,200	10	34
200	4	24

9. Click ‘Forward’.

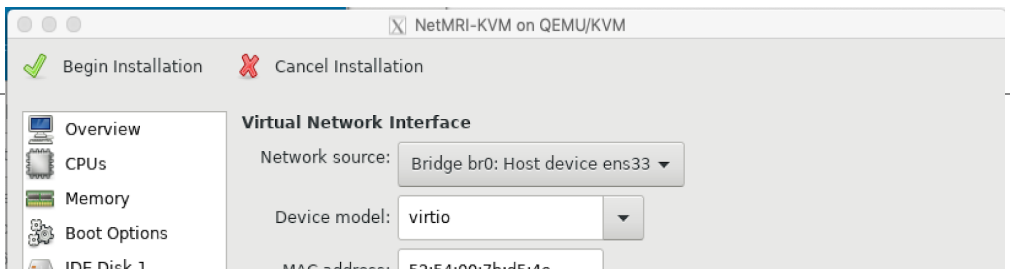


Note: the numbers in the screen shot are for demonstration purposes. Refer to the table in step 8 for proper memory and CPU settings.

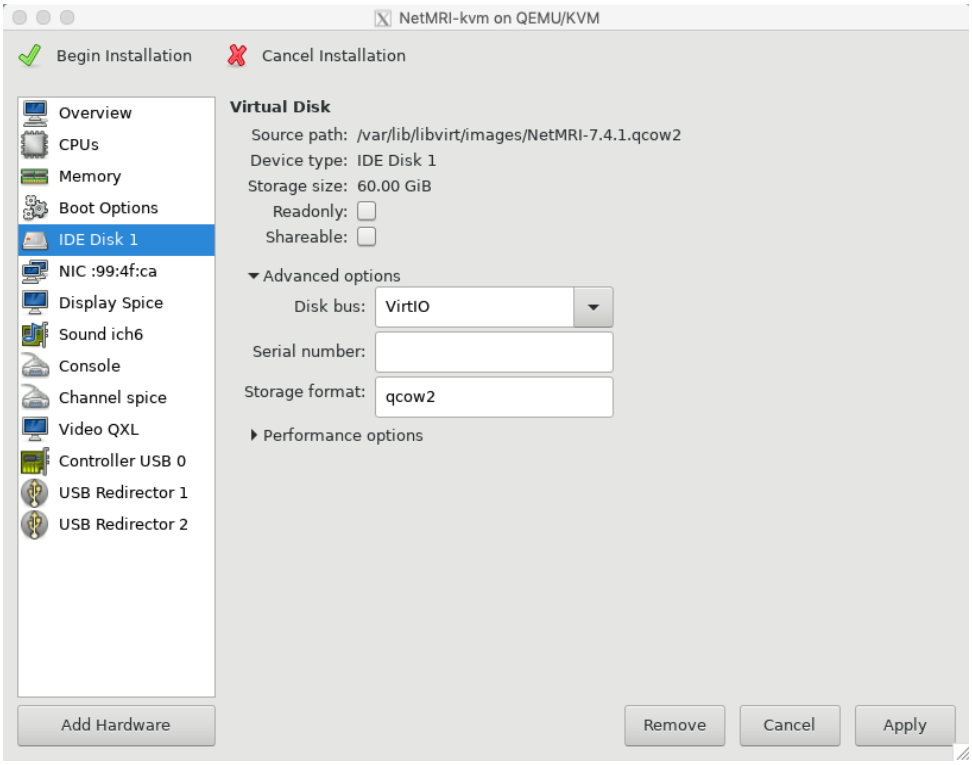
10. Type in a name for the VM. Click on ‘Customize configuration before install’. Click ‘Finish’.



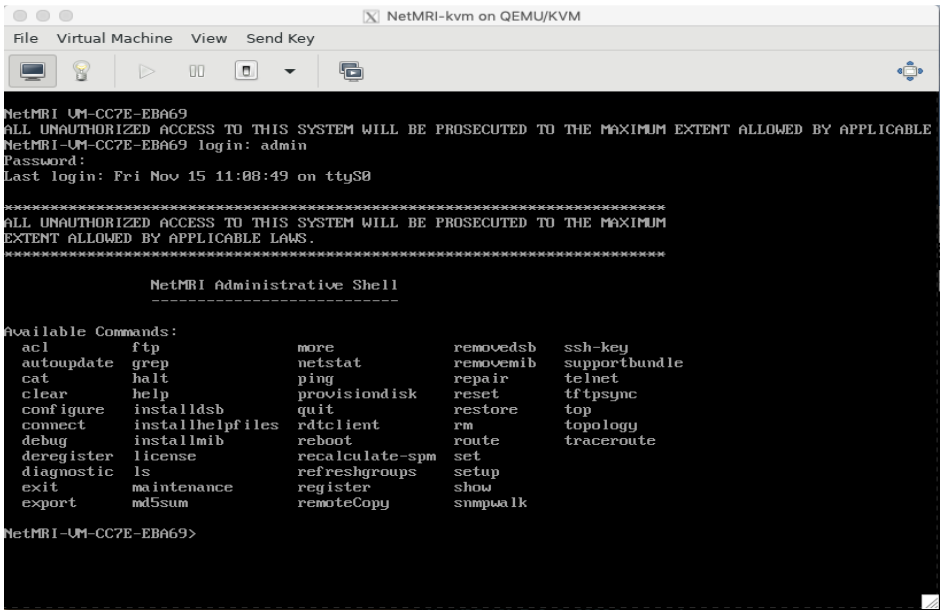
11. Click on the ‘NIC’. Ensure the network source is the bridge interface and the device model is ‘virtio’.



12. Click on ‘IDE Disk 1’ and then click on ‘Advanced options’. Change the ‘Disk bus’ to VirtIO for optimal performance. Click ‘Begin Installation’.



13. Another window will appear and the installation of NetMRI is occurring. As part of the initial startup the virtual appliance will run a benchmark to calculate the number of infrastructure devices it can support with the given resources. During this benchmark the login prompt will not be available.
14. When finished, you will get a login prompt. The default username is admin and the password is admin.



15. Type ‘configure server’ to do the initial setup of NetMRI. Please provide the following information when prompted: (underlined options are not required)
    a. database name
    b. server name
    c. generate a new HTTPS certificate
    d. DNS domain name
    e. ntp server
    f. time zone
    g. IP address for lan interface
    h. subnet mask for lan interface
    i. IPv6 address
    j. IPv6 prefix
    k. IPv4 default gateway
    l. IPv6 default gateway
    m. scan port
    n. DNS server IP
    o. 2nd DNS server IP

16. Review the settings. If everything looks good, hit the return key to continue. If you require to make changes, type ‘y’ to restart the configuration steps.
17. NetMRI will reboot to apply the new configuration. After rebooting login to the CLI run the command ‘set temp_license’ to install a temporary license.
18. After completing the reboot process, refer to the NetMRI Administrator’s guide for further setup information.
19. In order to have access to run Python and Perl scripts on a virtual appliance you will need to deploy and register the NetMRI sandbox. If you are not planning to do so you can now log in to the web interface and start using NetMRI.

Deploying the NetMRI Sandbox on KVM

1. Download the NetMRI sandbox qcow image from the Infoblox support site.

NetMRI for KVM

NetMRI for KVM consists of the following downloads.

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NetMRI Sandbox for KVM	
File	Size / MD5 Check Sum
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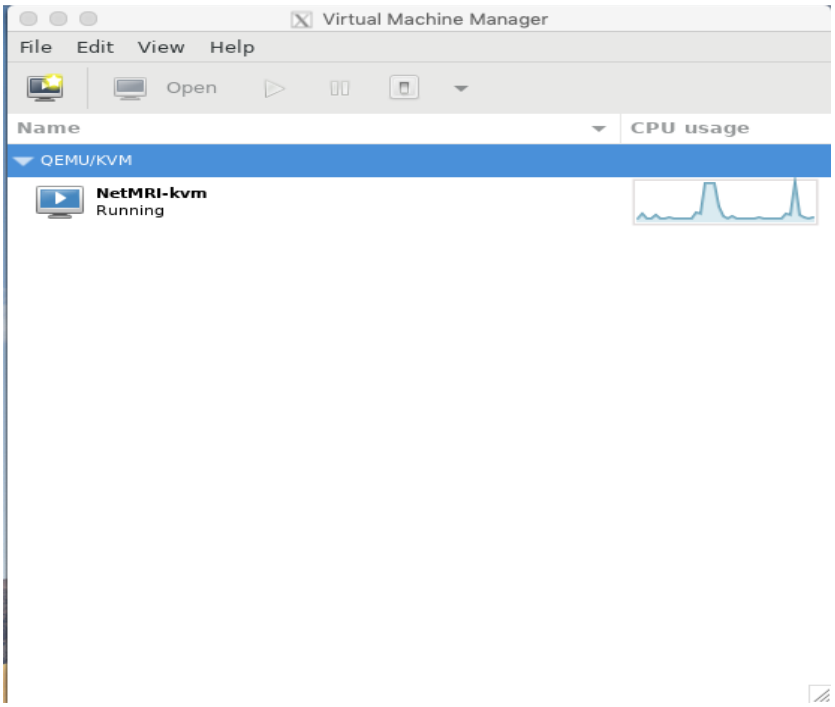
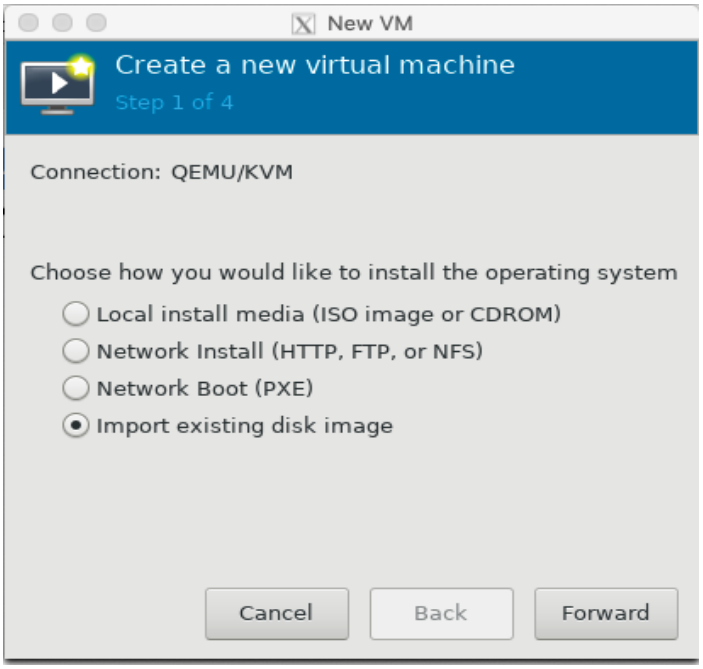
2. Copy the image to the /var/lib/libvirt/images subdirectory on the KVM server.

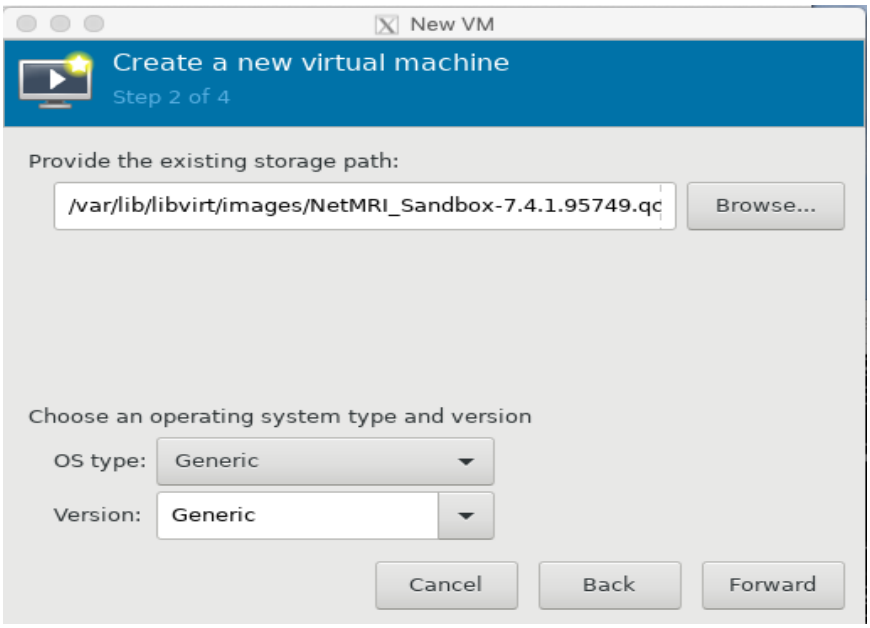


3. Run the virt-manager application.

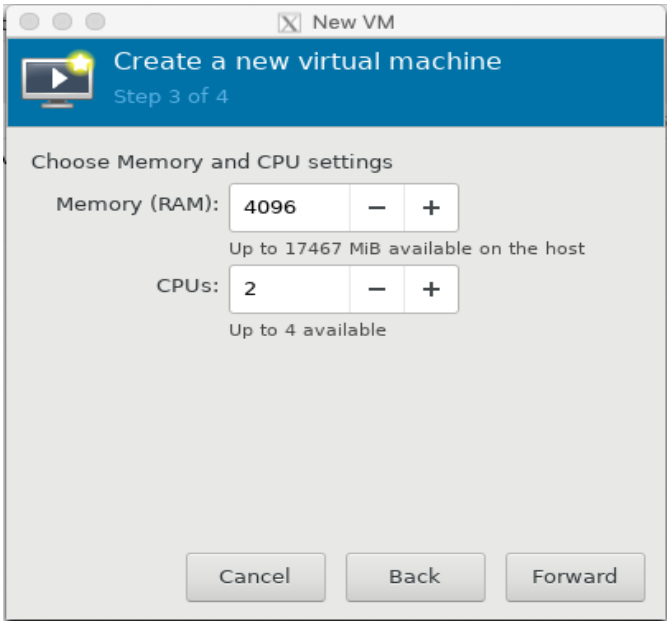
4. Click on the upper left button. Select ‘Import existing disk image’. Click ‘Forward’.



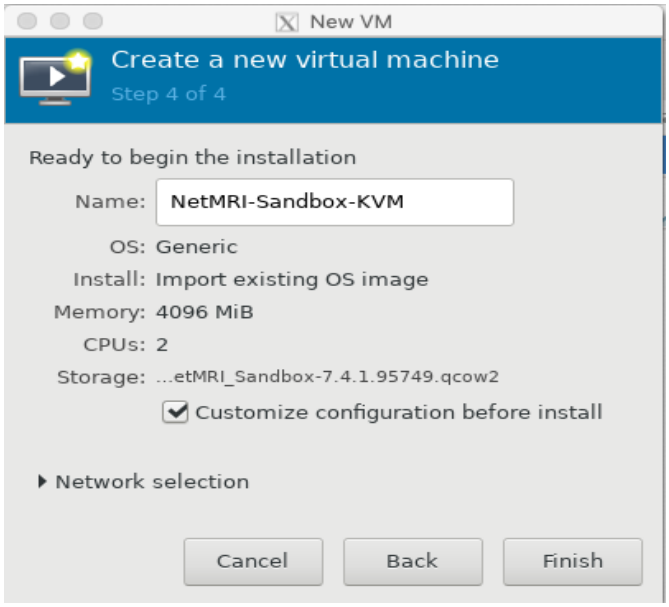
5. After the existing the storage path has been populated, click ‘Forward’.



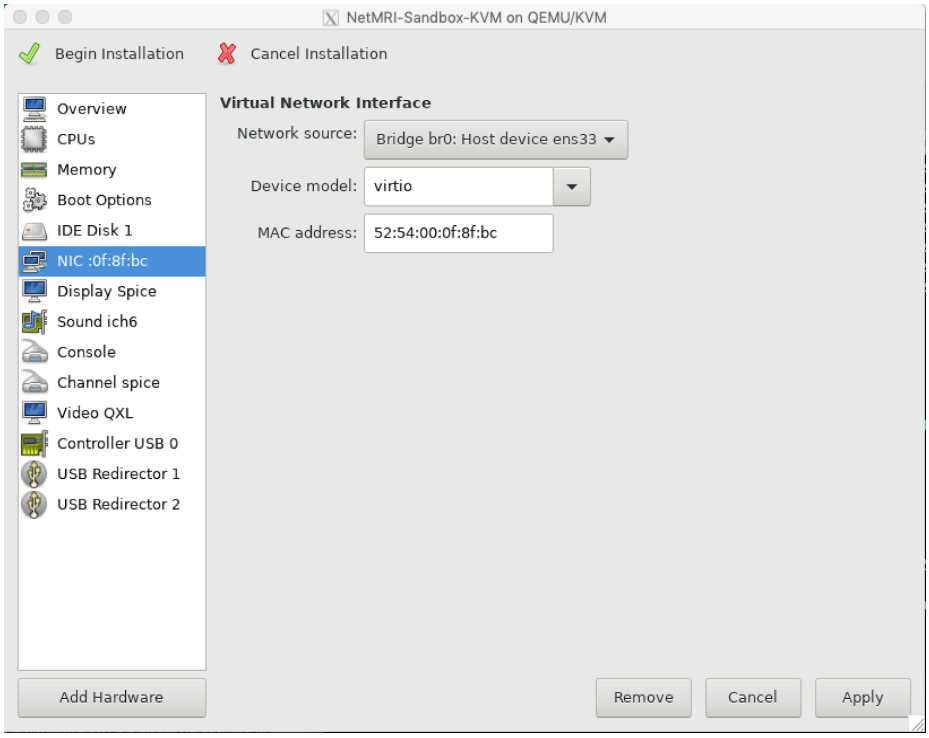
6. Choose the memory and CPU settings. Click ‘Forward’.



7. Type in a name for the VM. Click on ‘Customize configuration before install’. Click Finish.

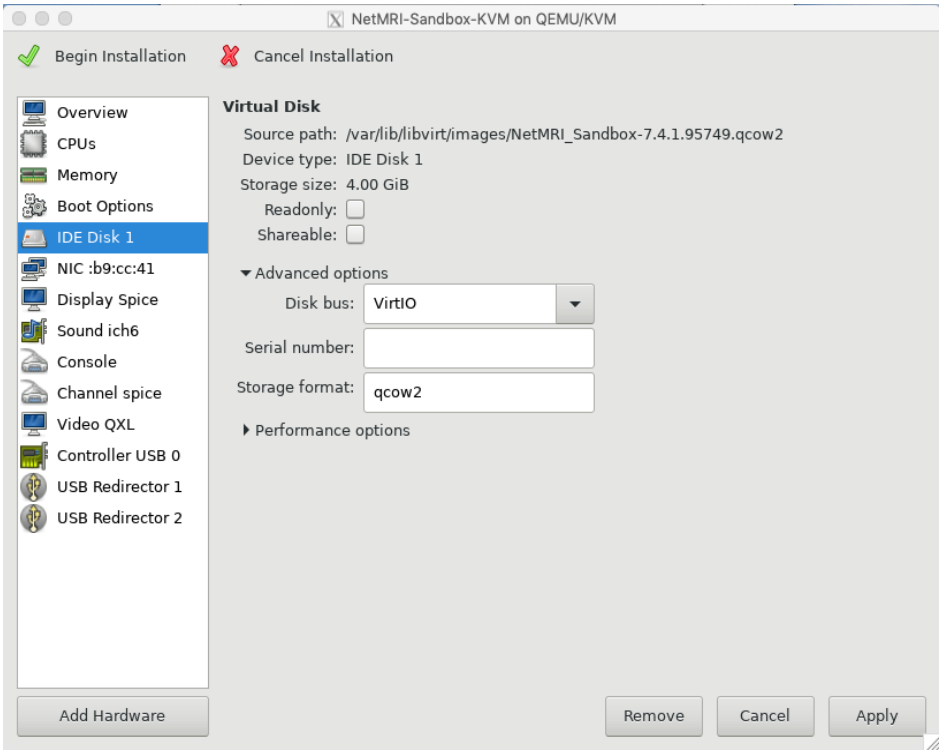


8. Click on the ‘NIC’. Ensure the network source is the bridge interface and the device model is ‘virtio’.

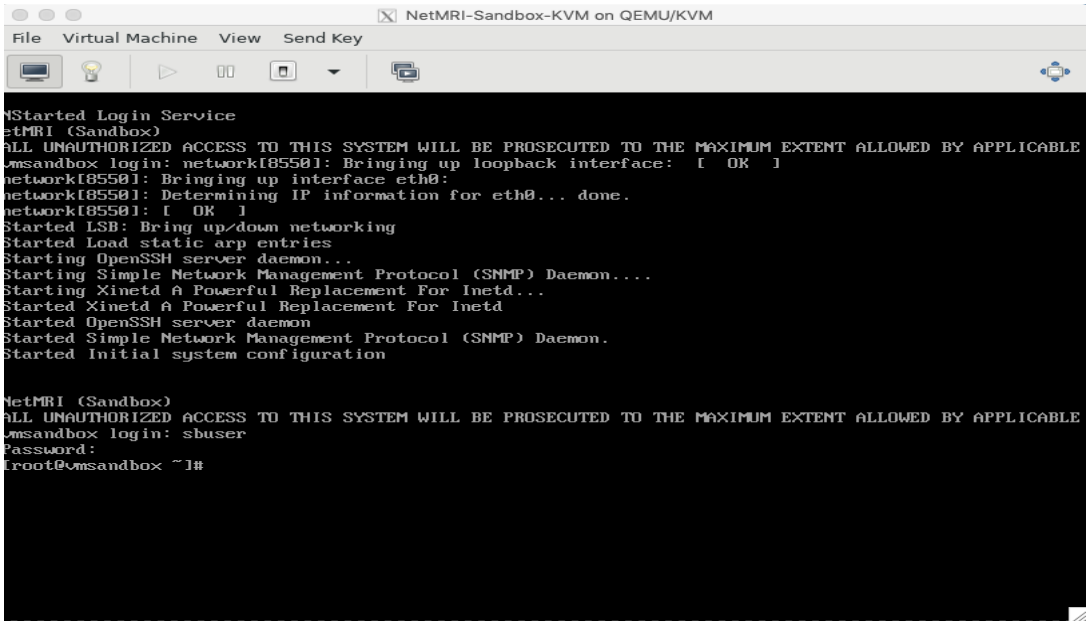


Note: the sandbox may exist on any layer 3 connected network as well as the same layer 2 network in this example.

9. Click on ‘IDE Disk 1’ and then click on ‘Advanced options’. Change the ‘Disk bus’ to VirtIO provide optimal performance. Click ‘Begin Installation’.



10. Another window will appear and the installation of NetMRI sandbox is occurring.
11. When finished, you will get a login prompt. The default username is sbuser and the password is sbuser.



12. At the prompt, type ‘./Setup’ to set up the sandbox. You will be asked for the following:
    a. server name
    b. domain name
    c. NTP server
    d. time zone
    e. IP address of management port
    f. subnet mask
    g. IPv6 address if needed
    h. IPv6 prefix if needed
    i. default gateway
    j. DNS server IP
13. Review the settings. If everything looks good, hit the return key to continue. If you require to make changes, type ‘y’ to restart the configuration.
14. The NetMRI sandbox will reboot to apply the configuration. You can now continue with the setup.
15. SSH into the NetMRI CLI which you spun up earlier.
16. Type the command ‘sandbox register’ to connect the sandbox to NetMRI. Enter the IP address and password for the sandbox when prompted. NetMRI will now connect to the new sandbox and complete the integration.
17. After the prompt on the SSH session comes back, you can access NetMRI via a web browser. Refer to the NetMRI Administrator guide for further instruction.

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Infoblox is the leader in modern, cloud-first networking and security services. Through extensive integrations, its solutions empower organizations to realize the full advantages of cloud networking today, while maximizing their existing infrastructure investments. Infoblox has over 12,000 customers, including 70 percent of the Fortune 500.

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