

GNS3 Virtual Machine for Network Security Labs

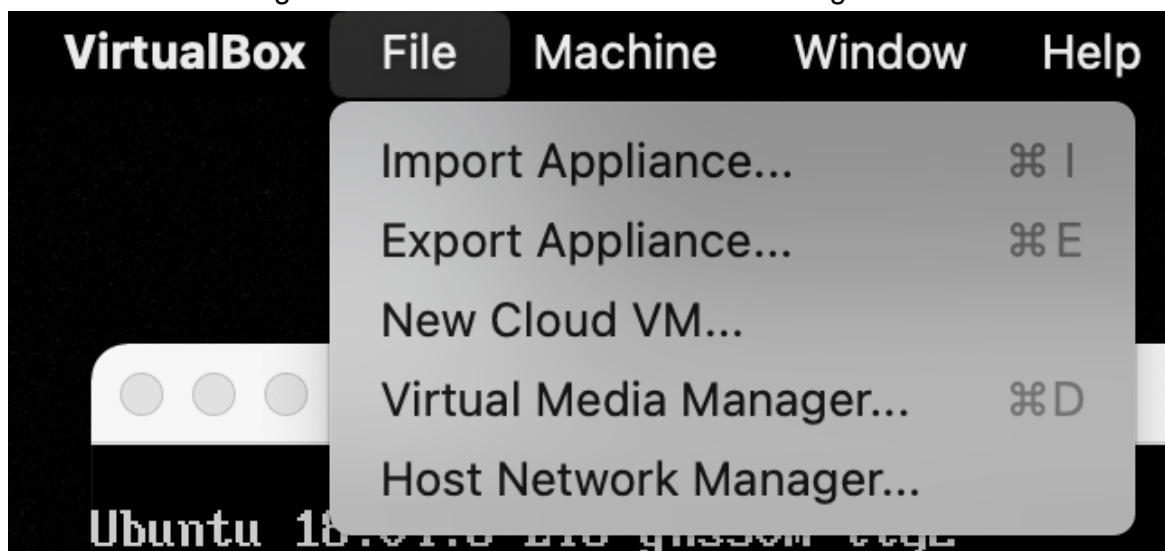
Downloads

1. The virtual machine image is in TEAMS under the folder "Files->Virtual Machine"
2. GNS3 user interface can be downloaded from GNS3 website :
<https://gns3.com/software>
3. Virtualbox is available at : <https://www.virtualbox.org>

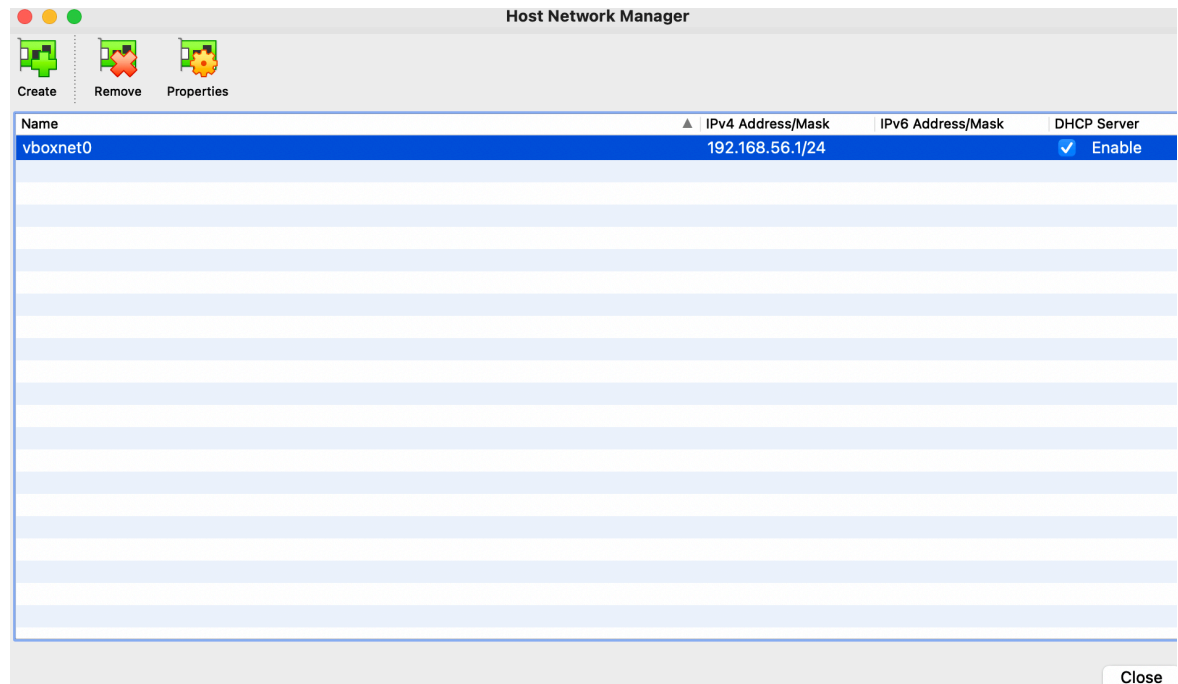
Installation

Creating a virtual network in VirtualBox

1. Start virtualbox and go to menu and click "Host Network Manager"



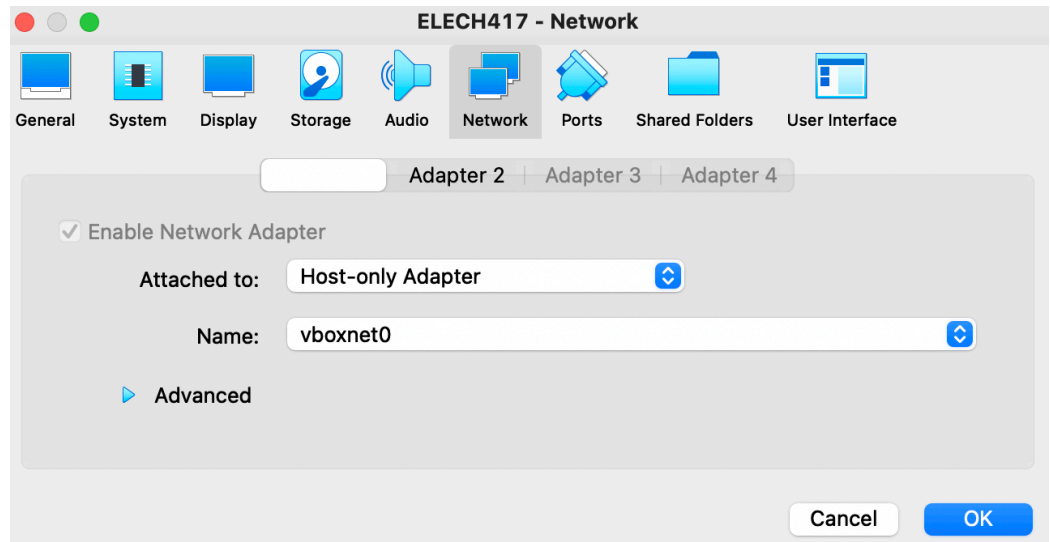
2. Create a new virtual subnet with the "Create" button



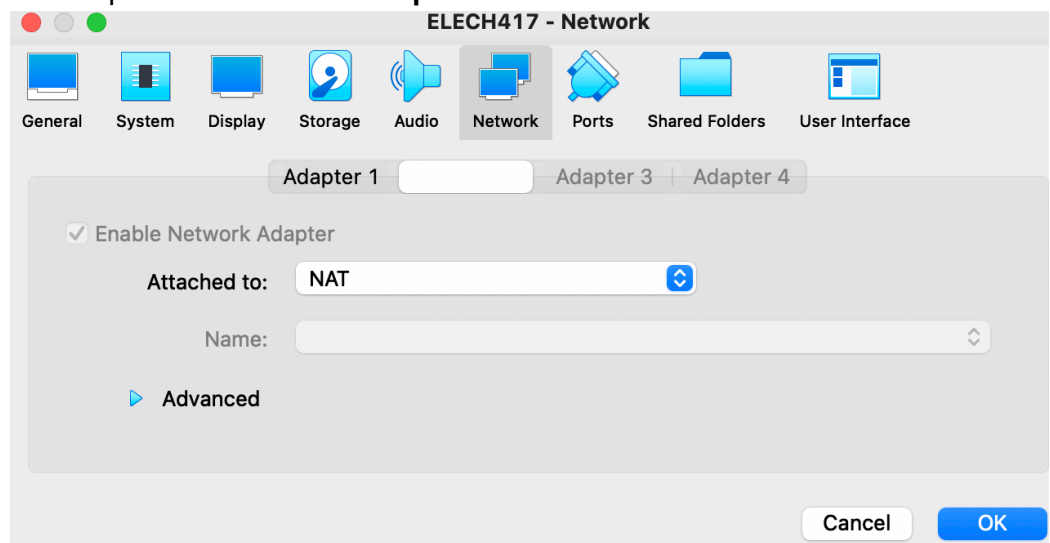
3. Enable the DHCP server
4. Save and close

Importing the VM in VirtualBox

1. (optional) Check that the OVA image of the VM is properly downloaded (use MD5 tool and compare with the MD5 provided with the VM)
2. Double-click on the OVA image you downloaded.
3. Allow some time for Virtualbox to import the virtual machine.
4. Adjust the settings of your virtual machine:
 - 2 processors
 - 2048 Mb of RAM
 - Enable nested virtualization for KVM support (Preferences -> System -> Process "enable Nested")
 - Network
 - set adapter 1 to be **host only adapter** and associate with *vboxnet0*.



- set adapter 2 to be a **NAT adapter**



- save and close

5. start the VM, wait some time and note the IP address on the screen

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GNS3 server version: 2.2.27
Release channel: 2.2
VM version: 0.10.27
Ubuntu version: bionic
Qemu version: 3.1.0
Virtualization: virtualbox
kvm
KVM support available: True
Uptime: up

IP: 192.168.56.4 PORT: 80

To log in using SSH: ssh gns3@192.168.56.4
Password: gns3

To launch the Web-Ui: http://192.168.56.4

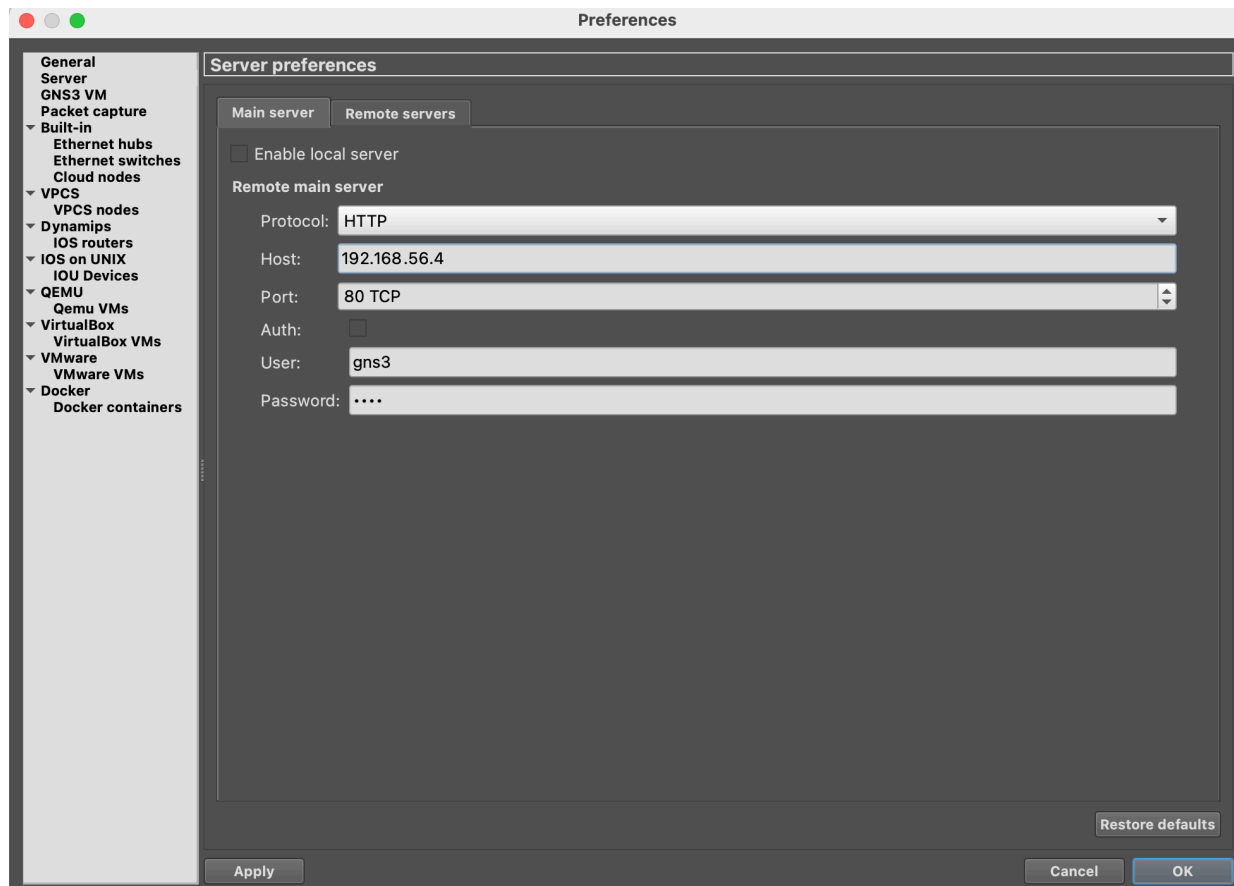
Images and projects are stored in '/opt/gns3'
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< OK >

Install GNS3

Online documentation : <https://docs.gns3.com>. Choose "Getting started" corresponding to your operating system.

In "Main server" tab, give as a host the IP address of the GNS3 virtual machine. The login is *gns3* and the password *gns3*



The IP address of the VM is presented in the main window when the virtual machine is started (please note that it could change over time).

What is included this lab virtual machine ?

- CISCO IOS image of router 3745 (including VLAN switching, VPN)
- IPTables firewall
- Linux IPTables firewall
- Several Linux hosts (net tools, pen testing, NGINX web server)

Validate the installation

If the GNS3 UI is correctly connected to the virtual machine, you should see under File->Open some projects (this may vary from year to year)

