# GNS3 INSTALLATION GUIDE

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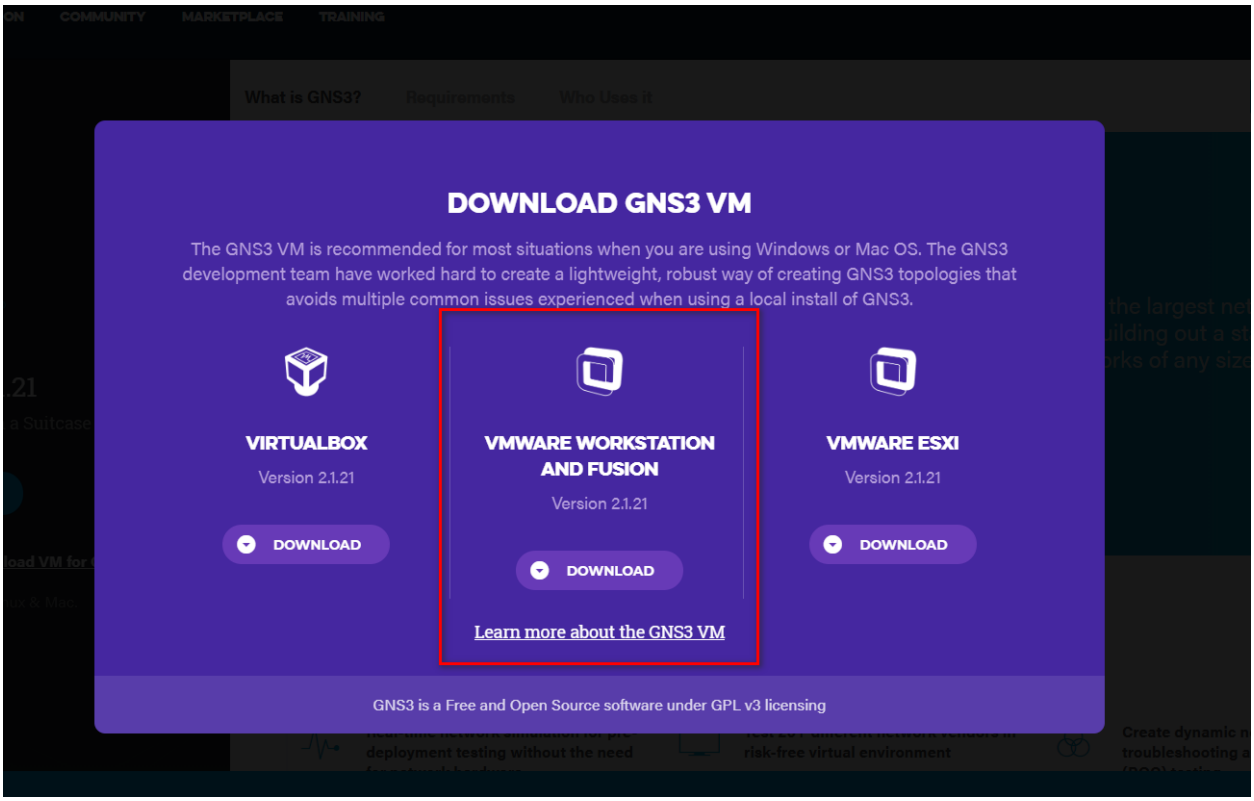
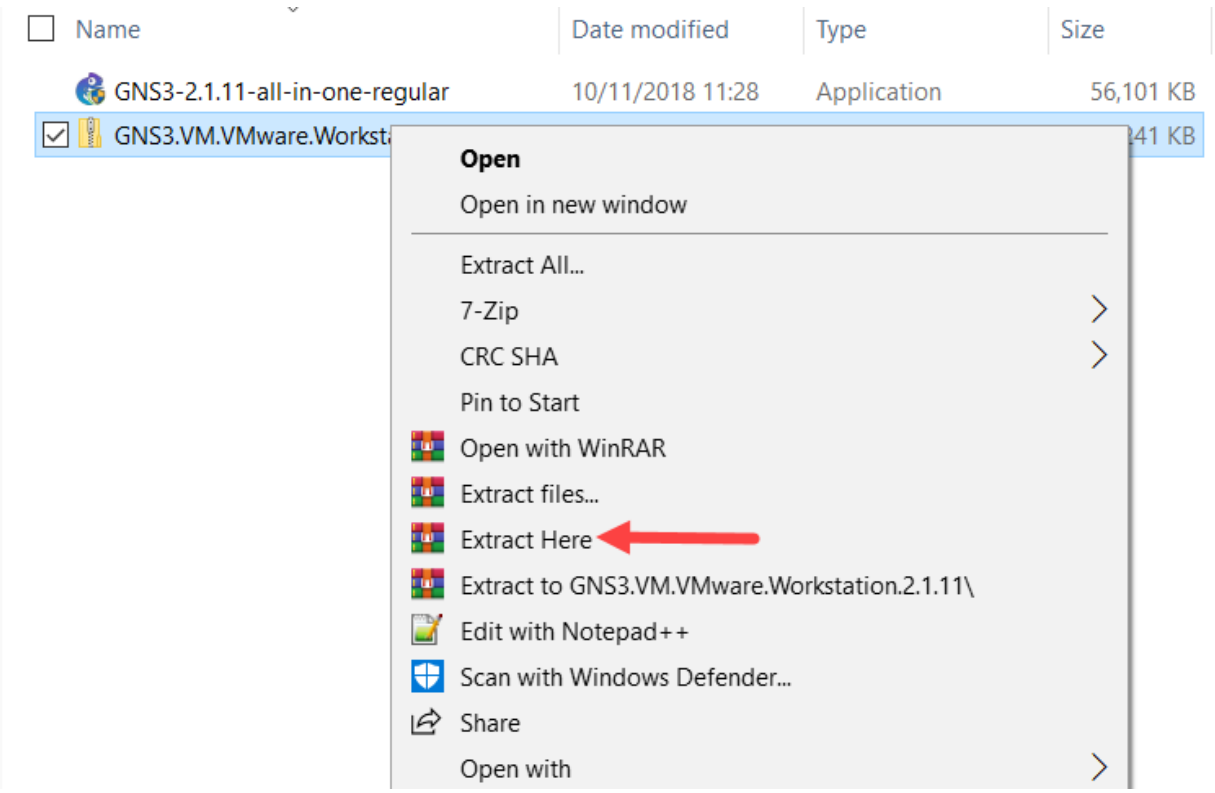
First Download the VMware workstation from https://www.gns3.com/

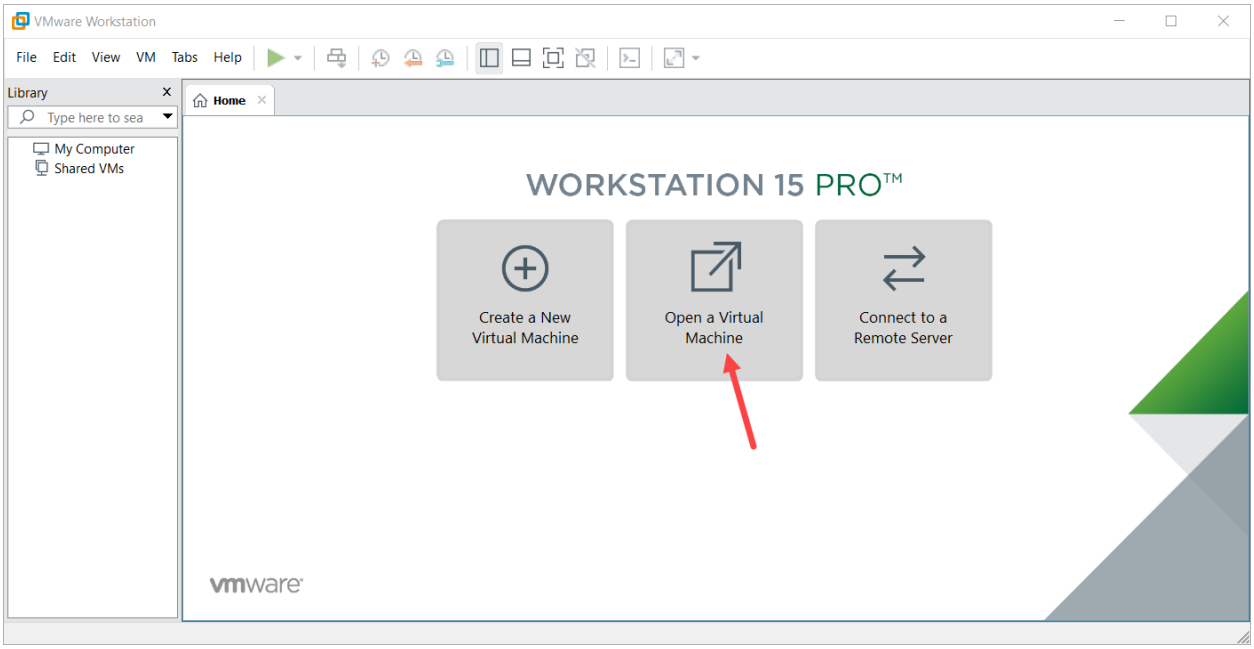



Extract the downloaded .zip archive:

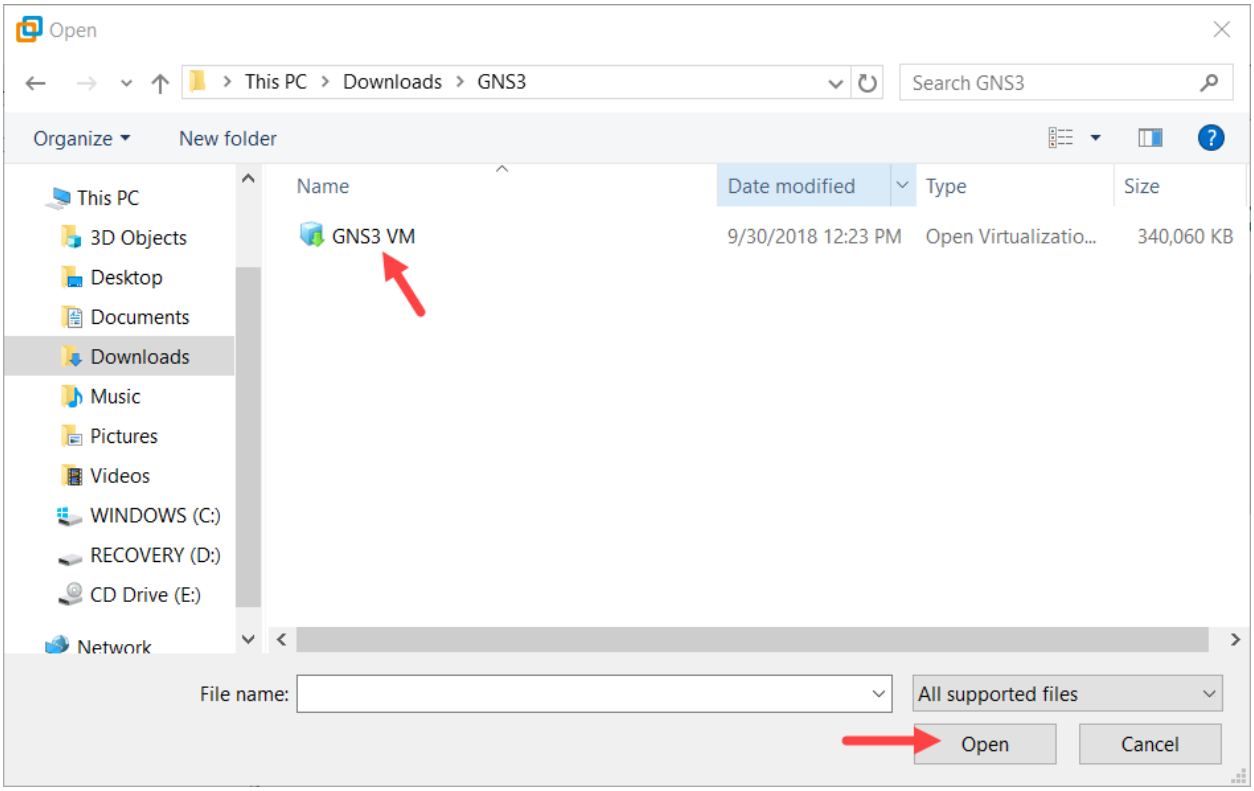



This extracts the “GNS3 VM.ova” file stored within the compressed archive, in order to import it into VMware Workstation.

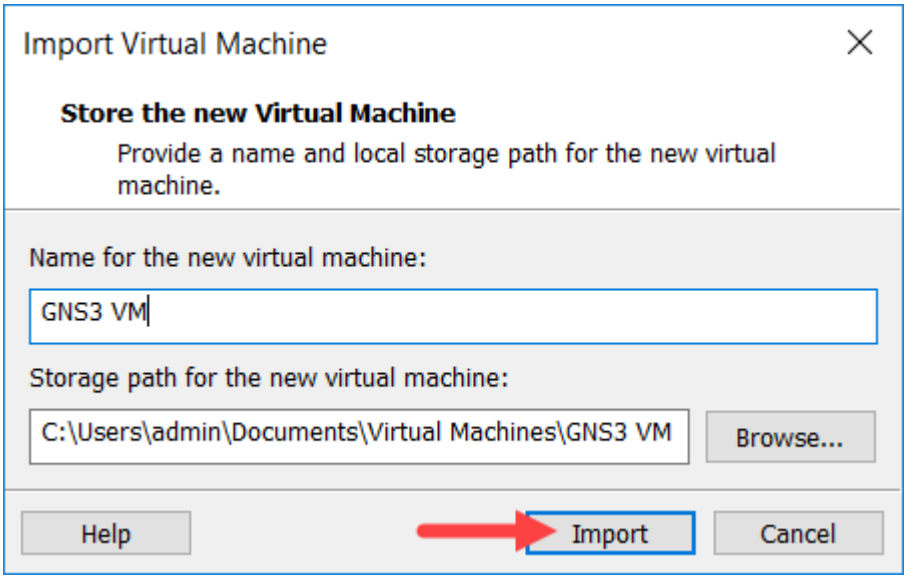
In VMware Workstation, click ‘**Open a Virtual Machine**’:




Navigate to the directory where the extracted **GNS3 VM.ova** is located, and click '**Open**' to open the OVA:

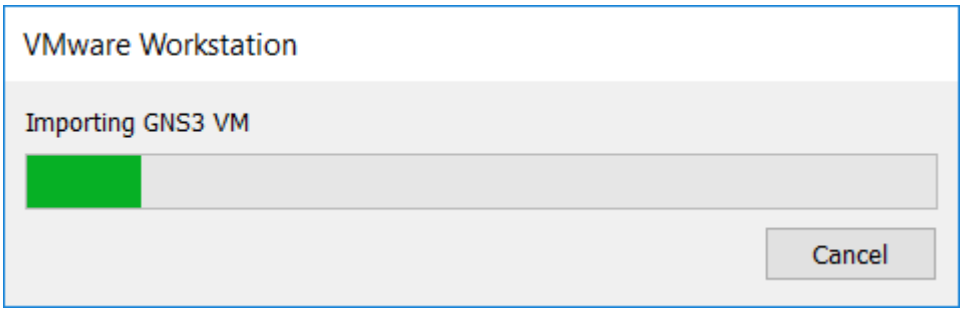


Leave the virtual machine name as '**GNS3 VM**', and click '**Import**':

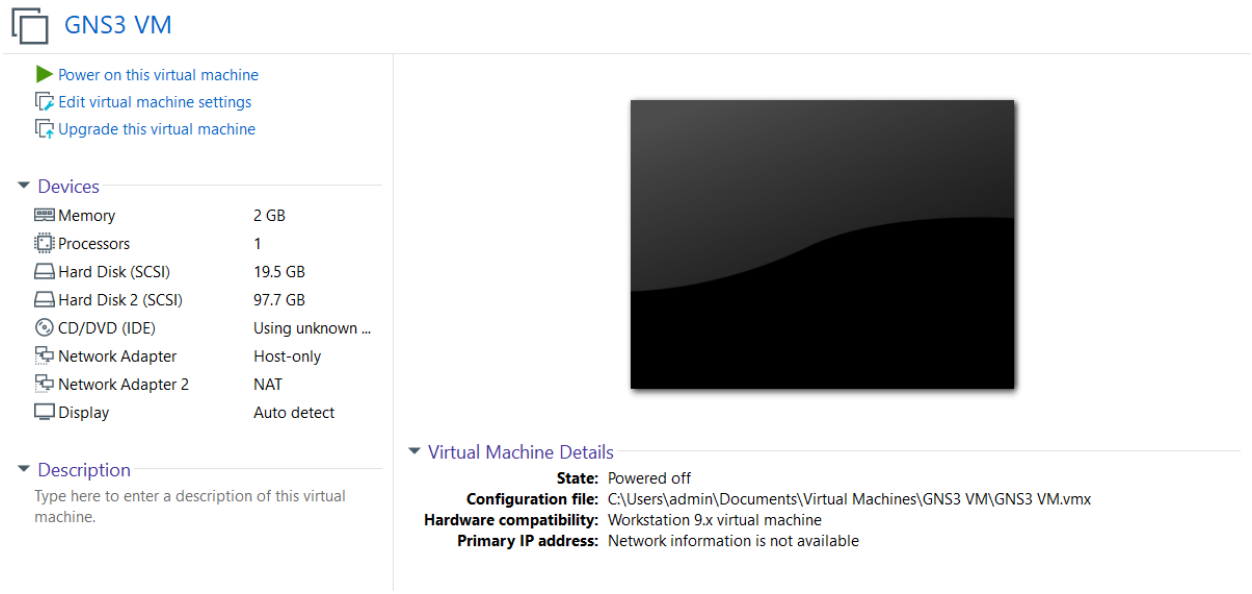



**WARNING**With VMware Player it's recommended to keep the default location. GNS3 will try to detect VMs outside, but unlike Workstation VMware Player doesn't offer a central database with all VMs location.

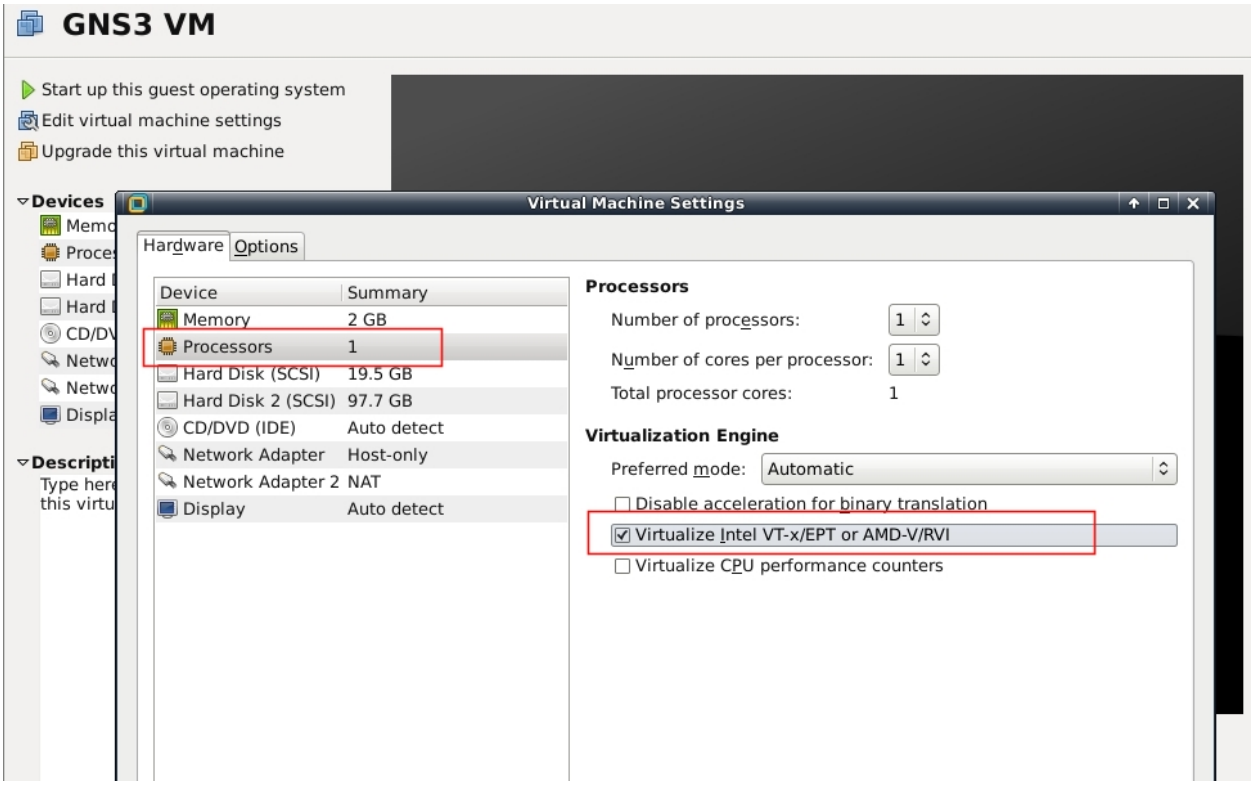
VMware Workstation will import the GNS3 VM:




The GNS3 VM will show as available in VMware Workstation. Leave all settings at their defaults:



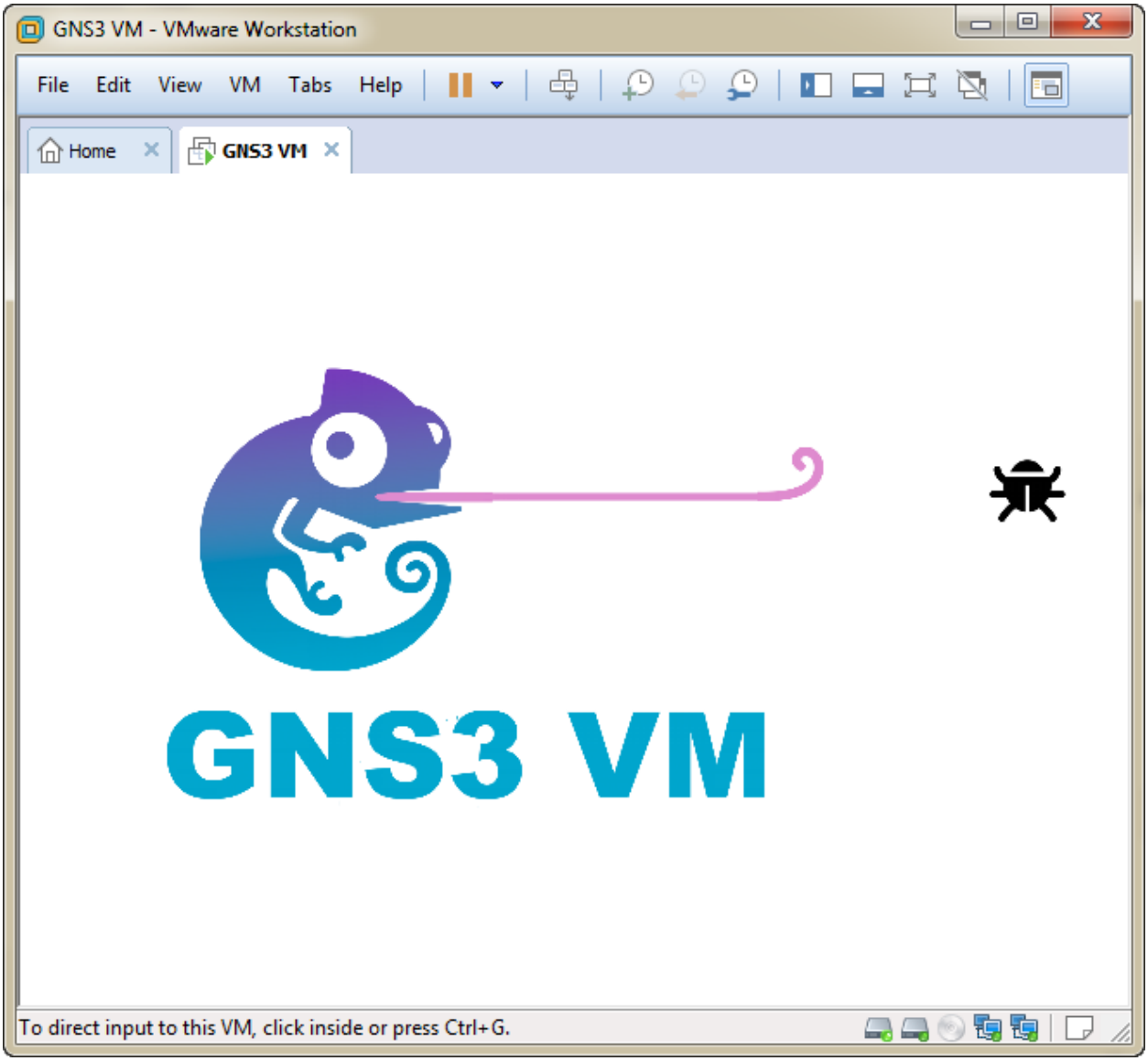

Enable this feature in VMware to make KVM feature active in the GNS3.



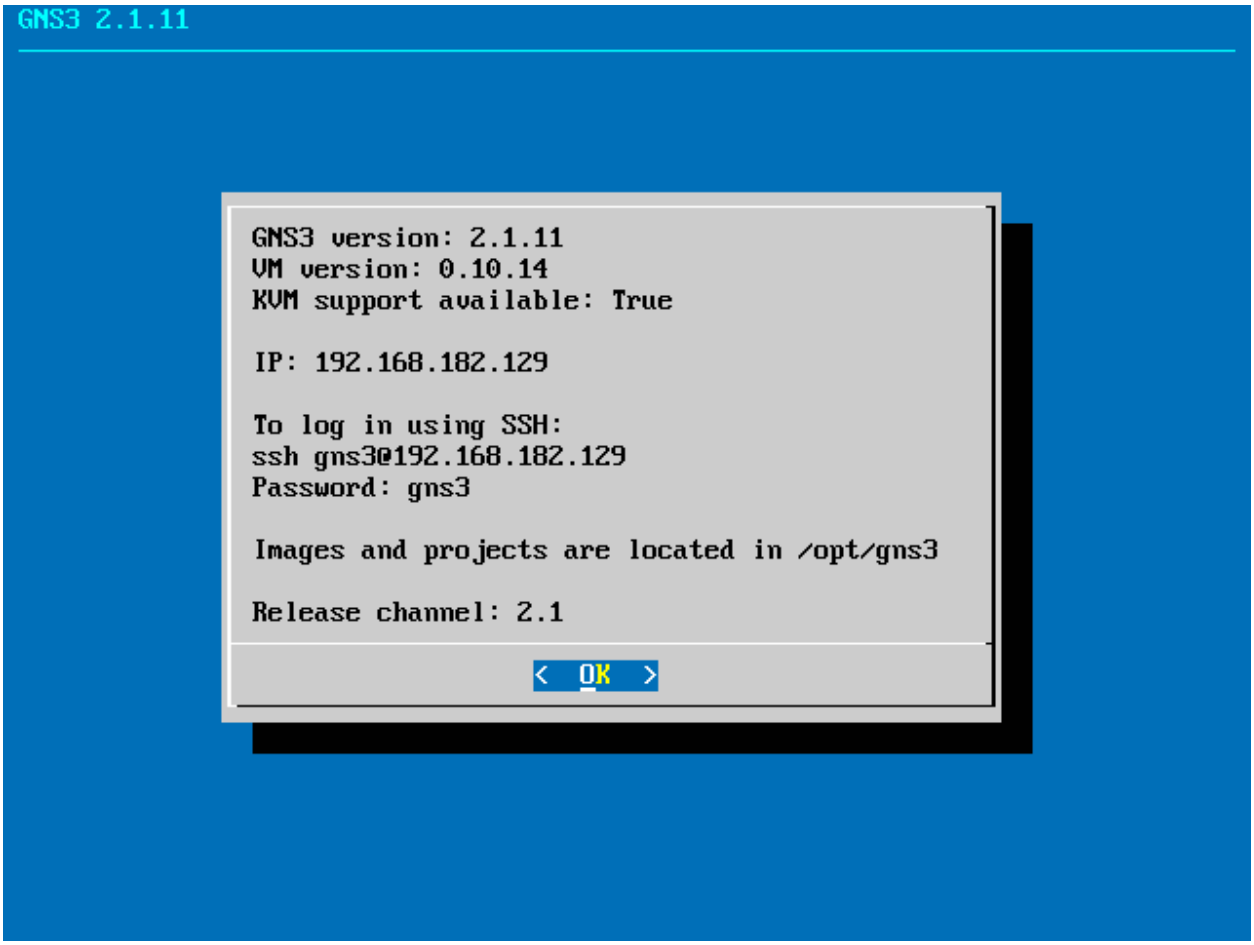

NOTE: If you encounter a message in the GNS3-VM where it states that KVM support is not available, even if you have a CPU capable of hardware virtualization (modern Intel and AMD CPUs all support this), please confirm

that it has been enabled in your system BIOS/UEFI (consult the documentation supplied by your motherboard manufacturer or PC vendor, to learn how to access this)

Start your machine in VMware Workstation

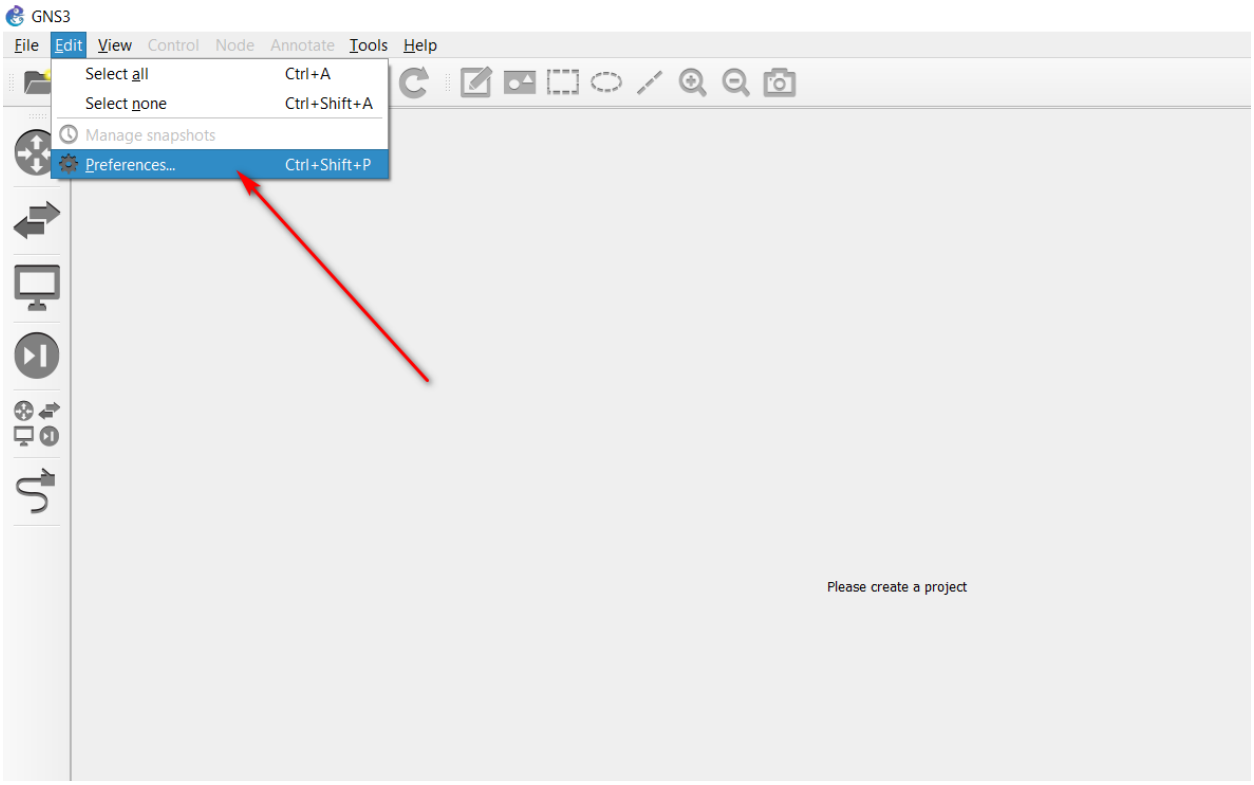



Once booted successfully, the IP address of the GNS3 VM will be displayed:

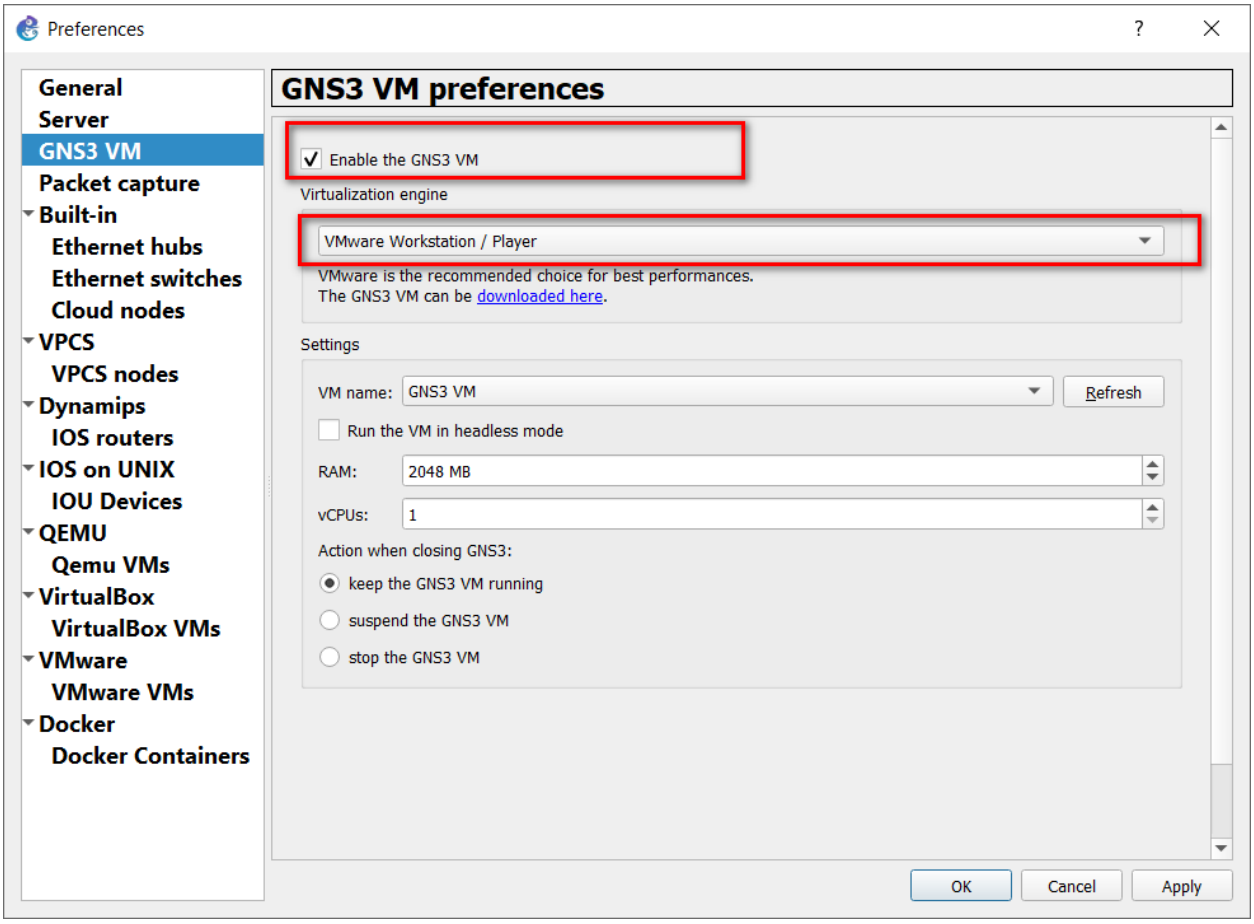



## HEALTH CHECK FOR VMWARE

1- Click on the Edit > Preferences…

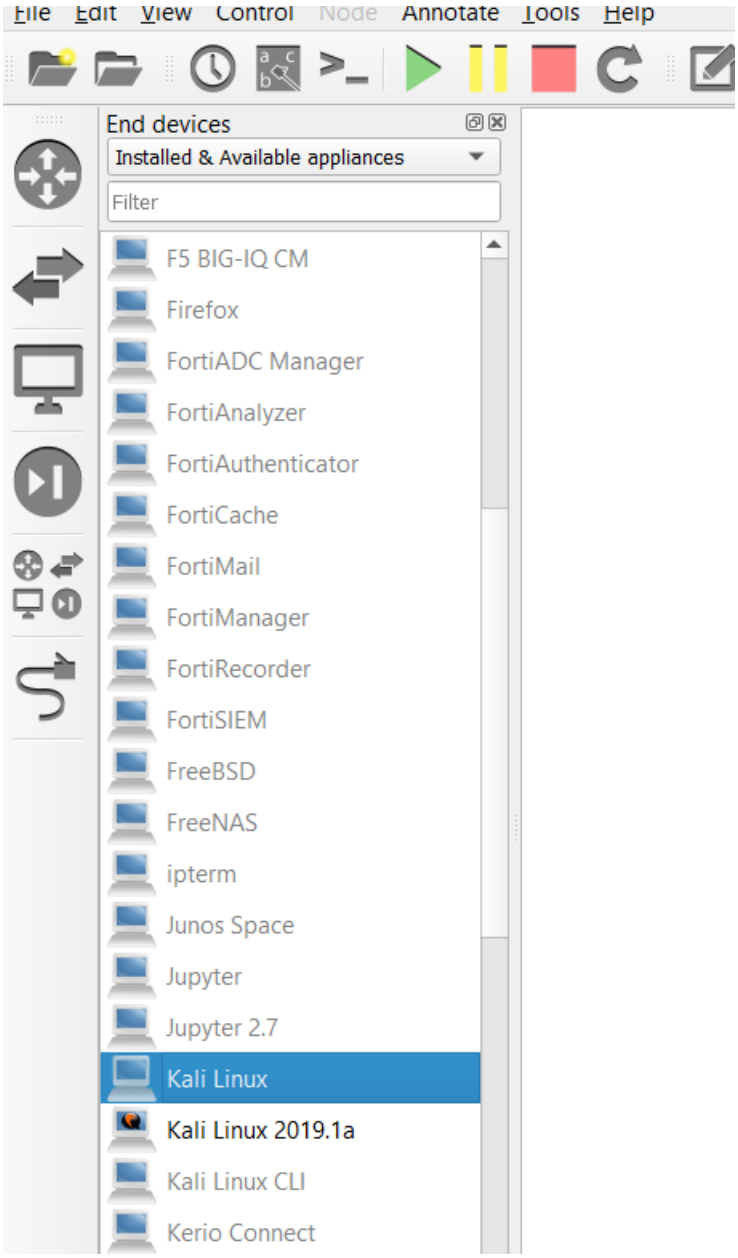


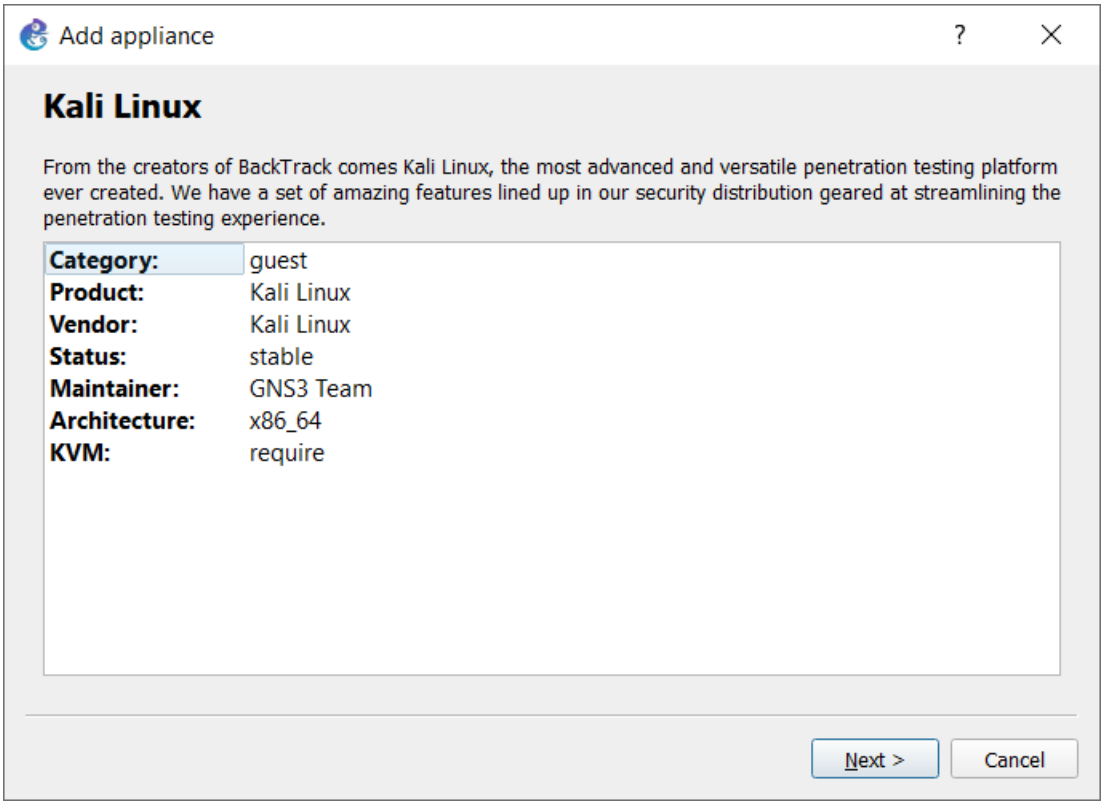

2- Select GNS3 VM. Here, two items should be checked:
   a. You should mark “Enable the GNS3 VM”
   b. Virtualization Engine should be set to “VM workstation player”

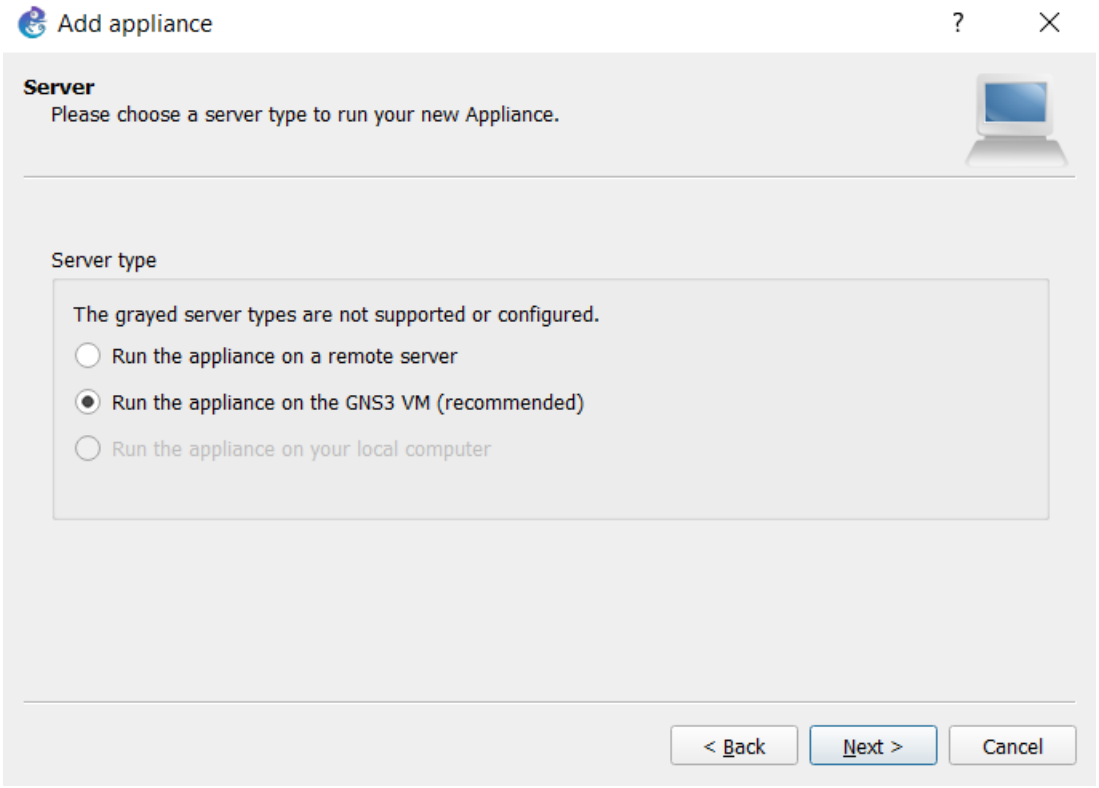


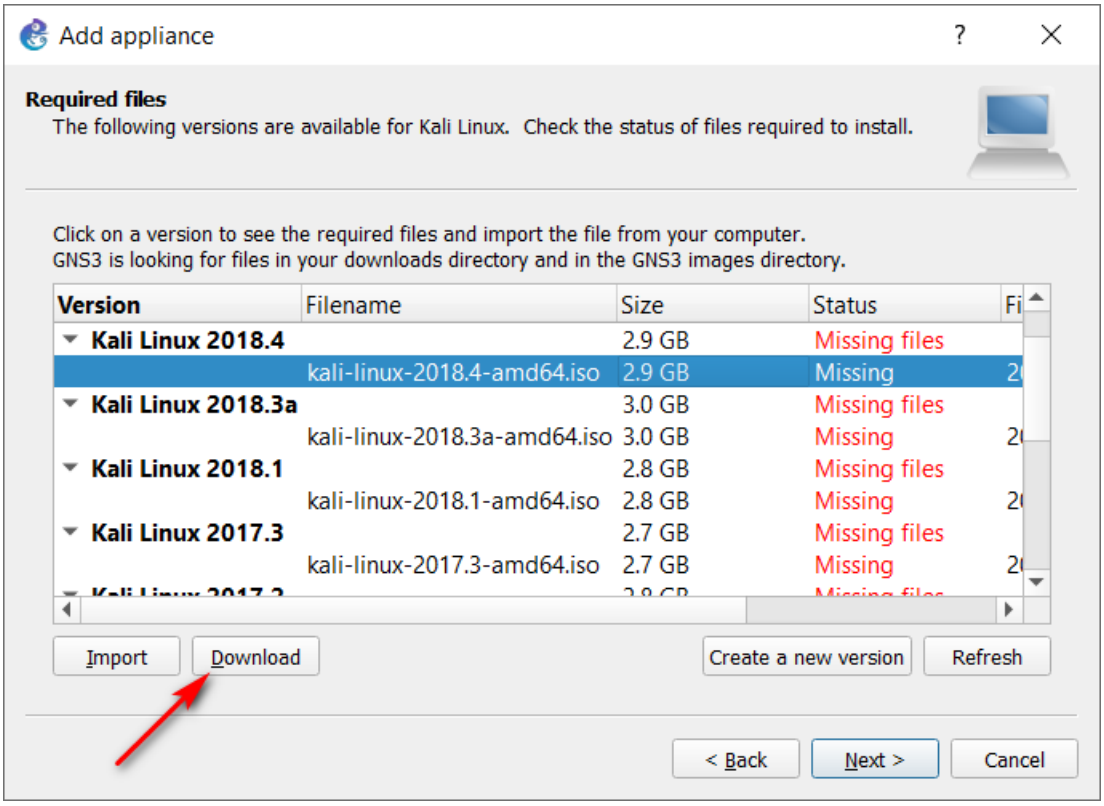

## INSTALLING KALI LINUX IN GNS3

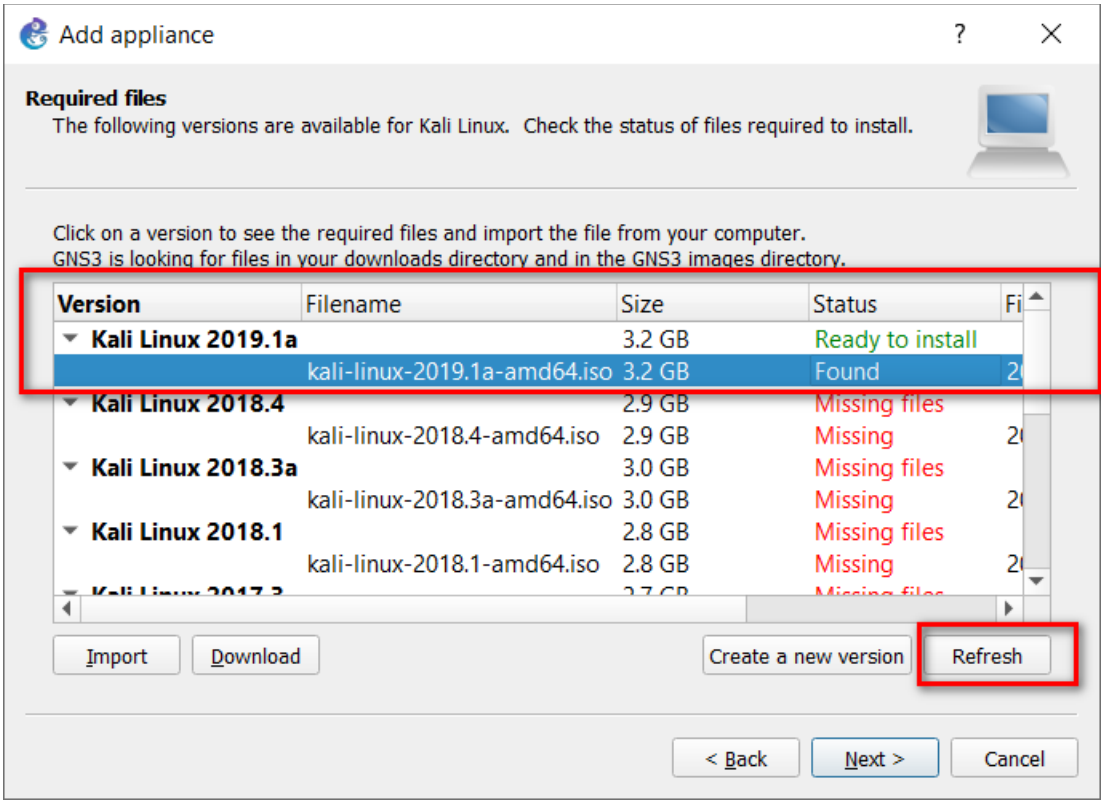
From the template, drag the Kali linux icon on the desktop.

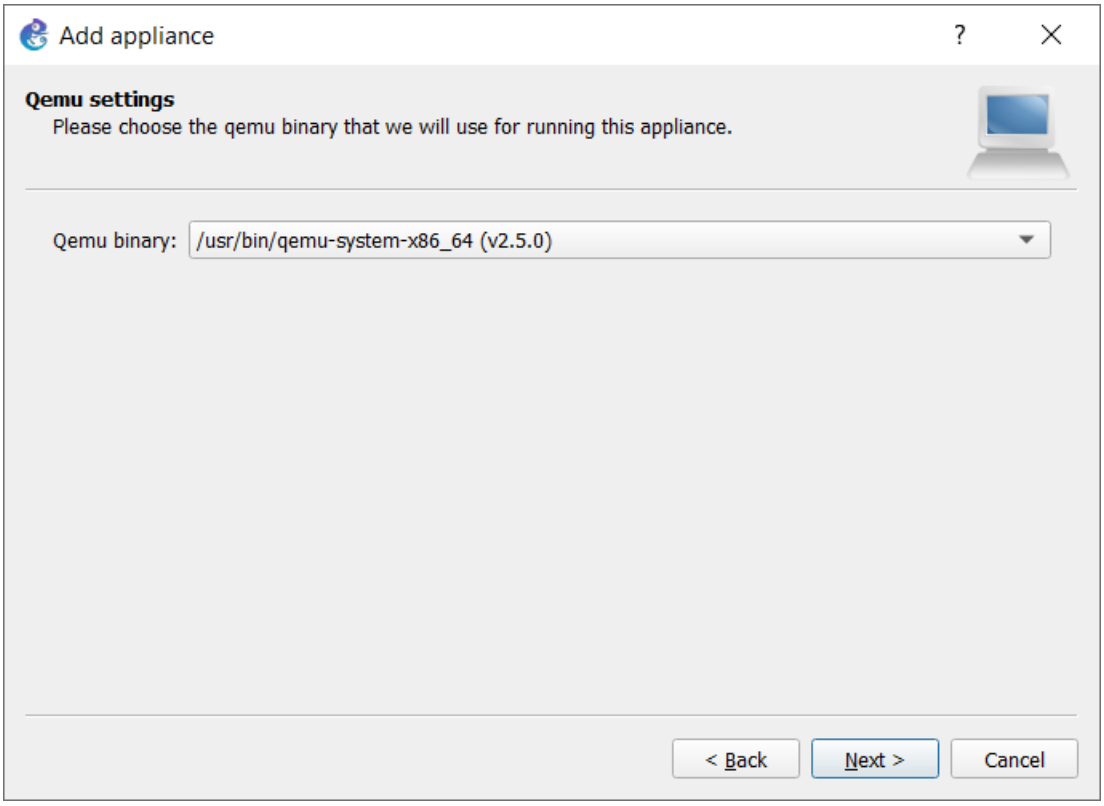

File Edit View Control Node Annotate Tools Help
End devices
Installed & Available appliances
Filter
F5 BIG-IQ CM
Firefox
FortiADC Manager
FortiAnalyzer
FortiAuthenticator
FortiCache
FortiMail
FortiManager
FortiRecorder
FortiSIEM
FreeBSD
FreeNAS
ipterm
Junos Space
Jupyter
Jupyter 2.7
Kali Linux
Kali Linux 2019.1a
Kali Linux CLI
Kerio Connect

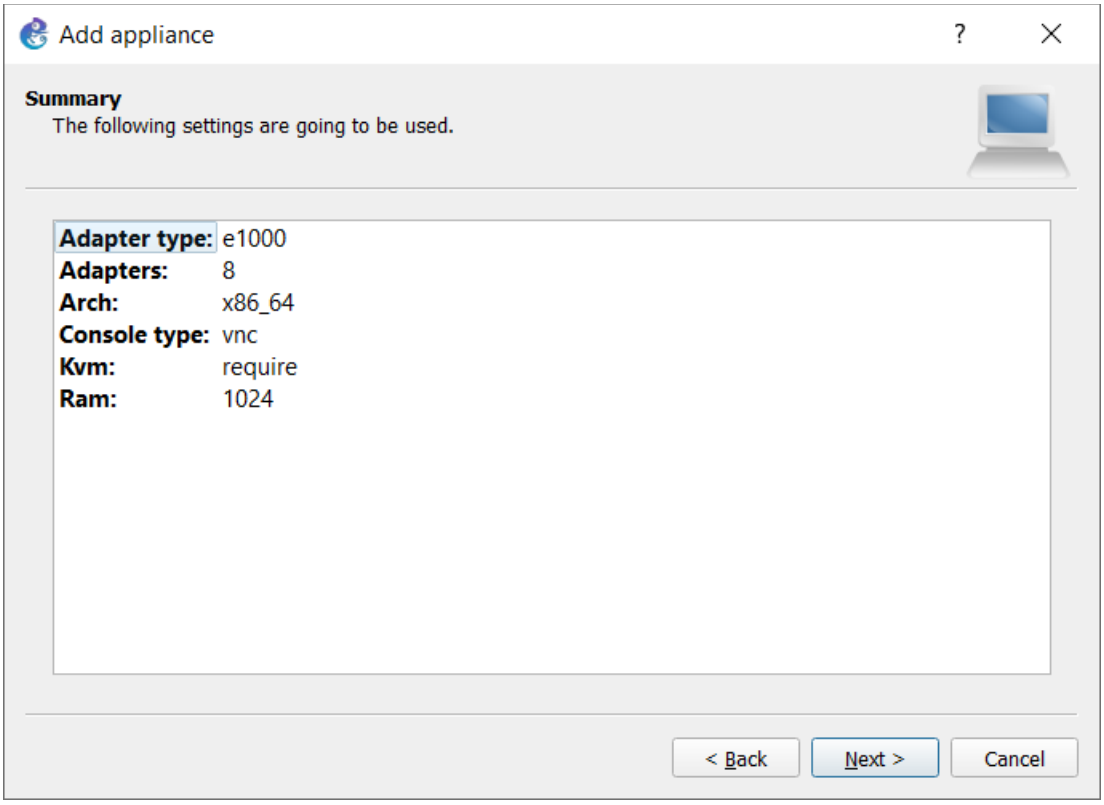

Add appliance
Kali Linux
From the creators of BackTrack comes Kali Linux, the most advanced and versatile penetration testing platform ever created. We have a set of amazing features lined up in our security distribution geared at streamlining the penetration testing experience.
Category: guest
Product: Kali Linux
Vendor: Kali Linux
Status: stable
Maintainer: GNS3 Team
Architecture: x86_64
KVM: require
Next >
Cancel

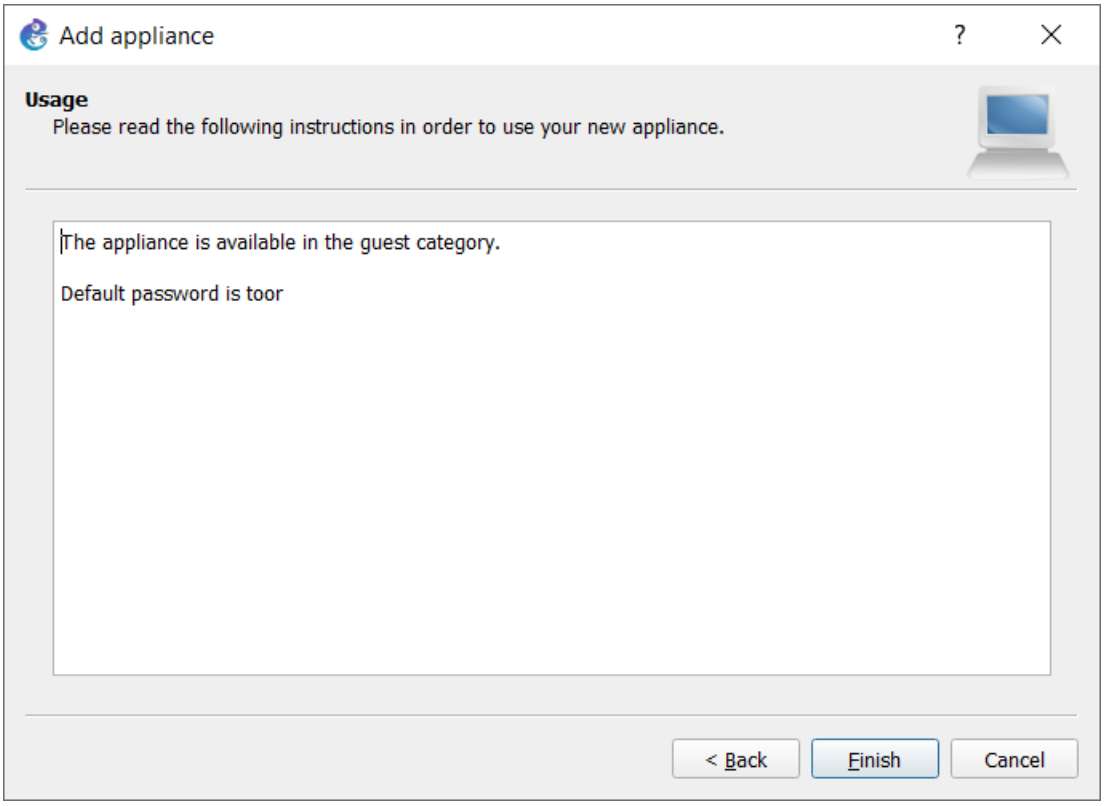

Add appliance
Server
Please choose a server type to run your new Appliance.
Server type
The grayed server types are not supported or configured.
Run the appliance on a remote server
Run the appliance on the GNS3 VM (recommended)
Run the appliance on your local computer
< Back
Next >
Cancel


Add appliance
Required files
The following versions are available for Kali Linux. Check the status of files required to install.
Click on a version to see the required files and import the file from your computer.
GNS3 is looking for files in your downloads directory and in the GNS3 images directory.
Version
Filename
Size
Status
Kali Linux 2018.4
2.9 GB
Missing files
kali-linux-2018.4-amd64.iso
2.9 GB
Missing
Kali Linux 2018.3a
3.0 GB
Missing files
kali-linux-2018.3a-amd64.iso
3.0 GB
Missing
Kali Linux 2018.1
2.8 GB
Missing files
kali-linux-2018.1-amd64.iso
2.8 GB
Missing
Kali Linux 2017.3
2.7 GB
Missing files
kali-linux-2017.3-amd64.iso
2.7 GB
Missing
Import
Download
Create a new version
Refresh
< Back
Next >
Cancel

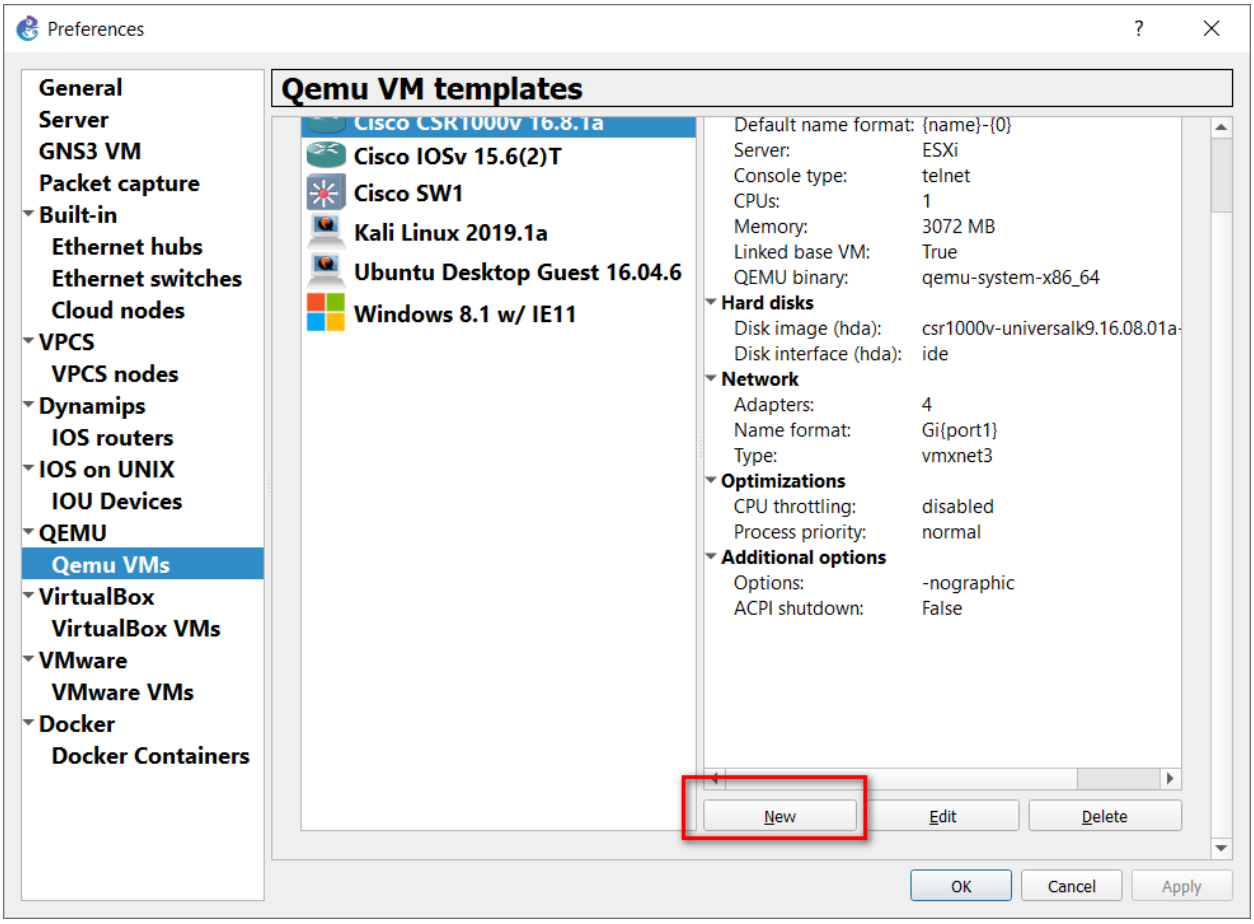

Add appliance
Required files
The following versions are available for Kali Linux. Check the status of files required to install.
Click on a version to see the required files and import the file from your computer.
GNS3 is looking for files in your downloads directory and in the GNS3 images directory.
Version
Filename
Size
Status
Kali Linux 2019.1a
3.2 GB
Ready to install
kali-linux-2019.1a-amd64.iso
3.2 GB
Found
Kali Linux 2018.4
2.9 GB
Missing files
kali-linux-2018.4-amd64.iso
2.9 GB
Missing
Kali Linux 2018.3a
3.0 GB
Missing files
kali-linux-2018.3a-amd64.iso
3.0 GB
Missing
Kali Linux 2018.1
2.8 GB
Missing files
kali-linux-2018.1-amd64.iso
2.8 GB
Missing
Import
Download
Create a new version
Refresh
< Back
Next >
Cancel

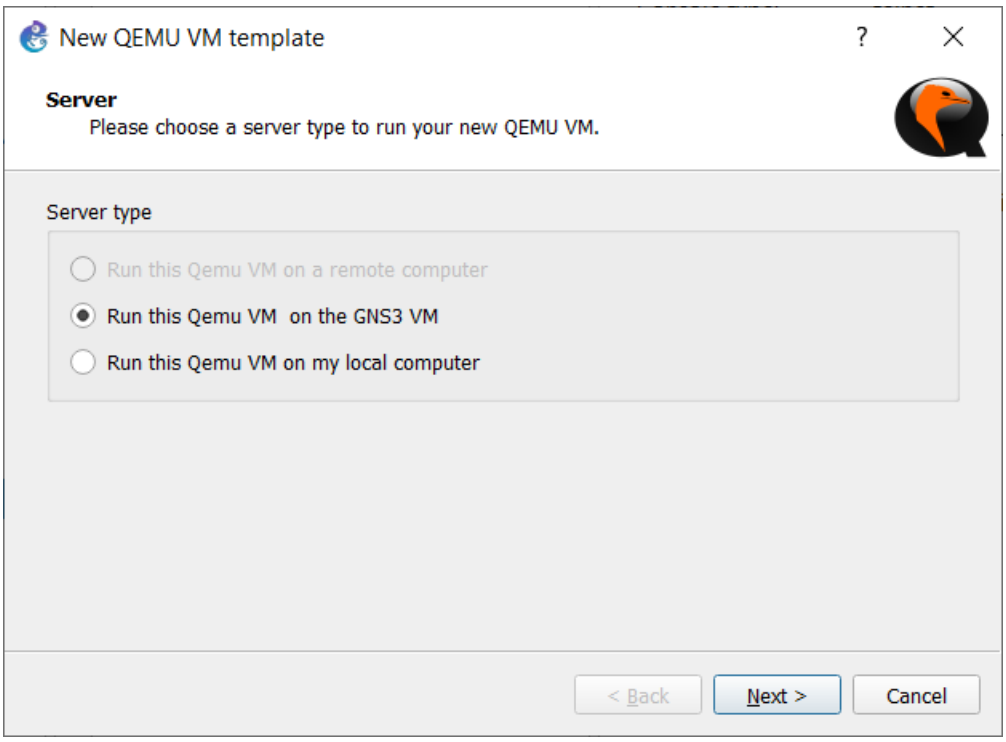

Add appliance
Qemu settings
Please choose the qemu binary that we will use for running this appliance.
Qemu binary:
/usr/bin/qemu-system-x86_64 (v2.5.0)
< Back
Next >
Cancel

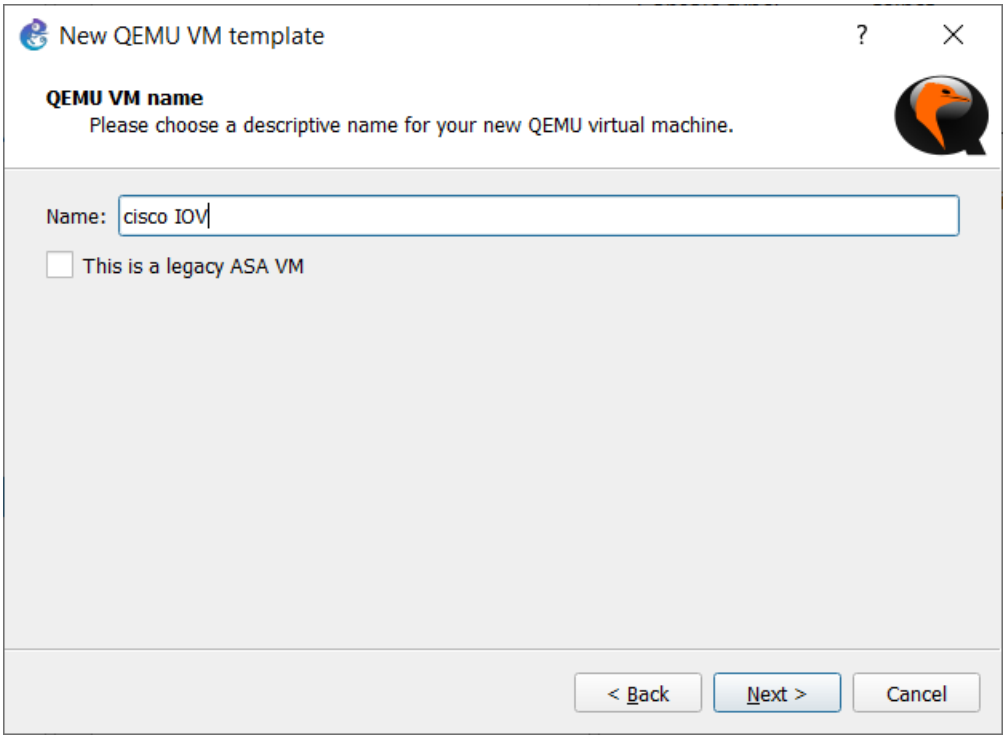

Add appliance
Summary
The following settings are going to be used.
Adapter type: e1000
Adapters: 8
Arch: x86_64
Console type: vnc
Kvm: require
Ram: 1024
< Back
Next >
Cancel

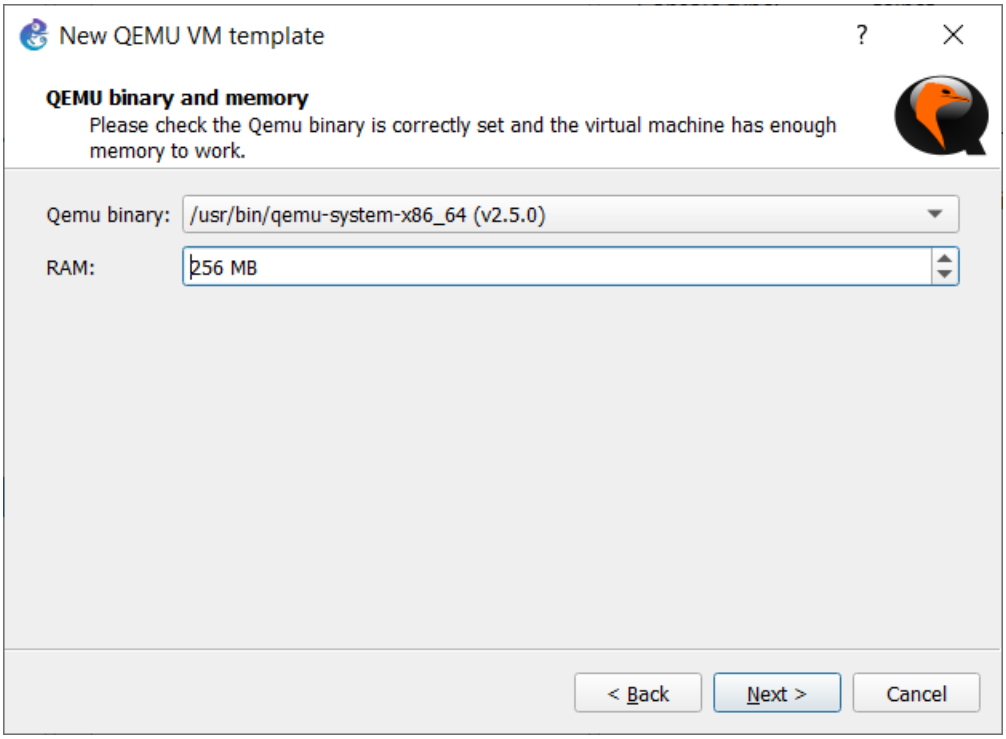


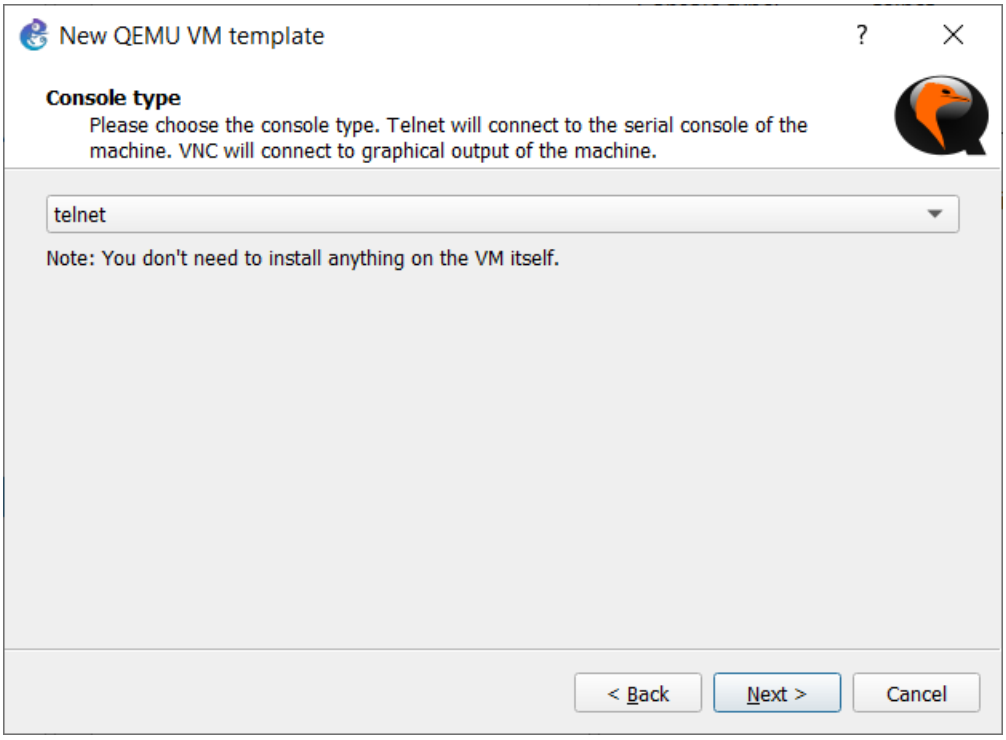

## INSTALLING CISCO SWITCH IOSV

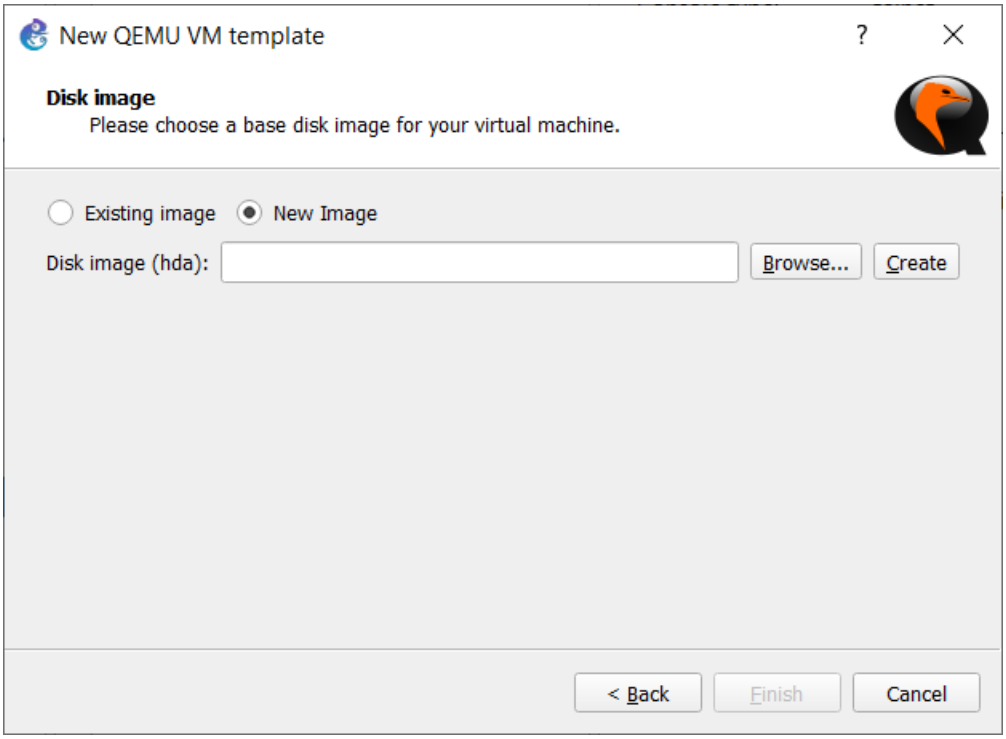

Preferences
General
Server
GNS3 VM
Packet capture
Built-in
Ethernet hubs
Ethernet switches
Cloud nodes
VPCS
VPCS nodes
Dynamips
IOS routers
IOS on UNIX
IOU Devices
QEMU
Qemu VMs
VirtualBox
VirtualBox VMs
VMware
VMware VMs
Docker
Docker Containers
Qemu VM templates
Cisco CSR1000v 16.8.1a
Cisco IOSv 15.6(2)T
Cisco SW1
Kali Linux 2019.1a
Ubuntu Desktop Guest 16.04.6
Windows 8.1 w/ IE11
Default name format: {name}-{0}
Server: ESXi
Console type: telnet
CPUs: 1
Memory: 3072 MB
Linked base VM: True
QEMU binary: qemu-system-x86_64
Hard disks
Disk image (hda): csr1000v-universalk9.16.08.01a-
Disk interface (hda): ide
Network
Adapters: 4
Name format: Gi{port1}
Type: vmxnet3
Optimizations
CPU throttling: disabled
Process priority: normal
Additional options
Options: -nographic
ACPI shutdown: False
New
Edit
Delete
OK
Cancel
Apply

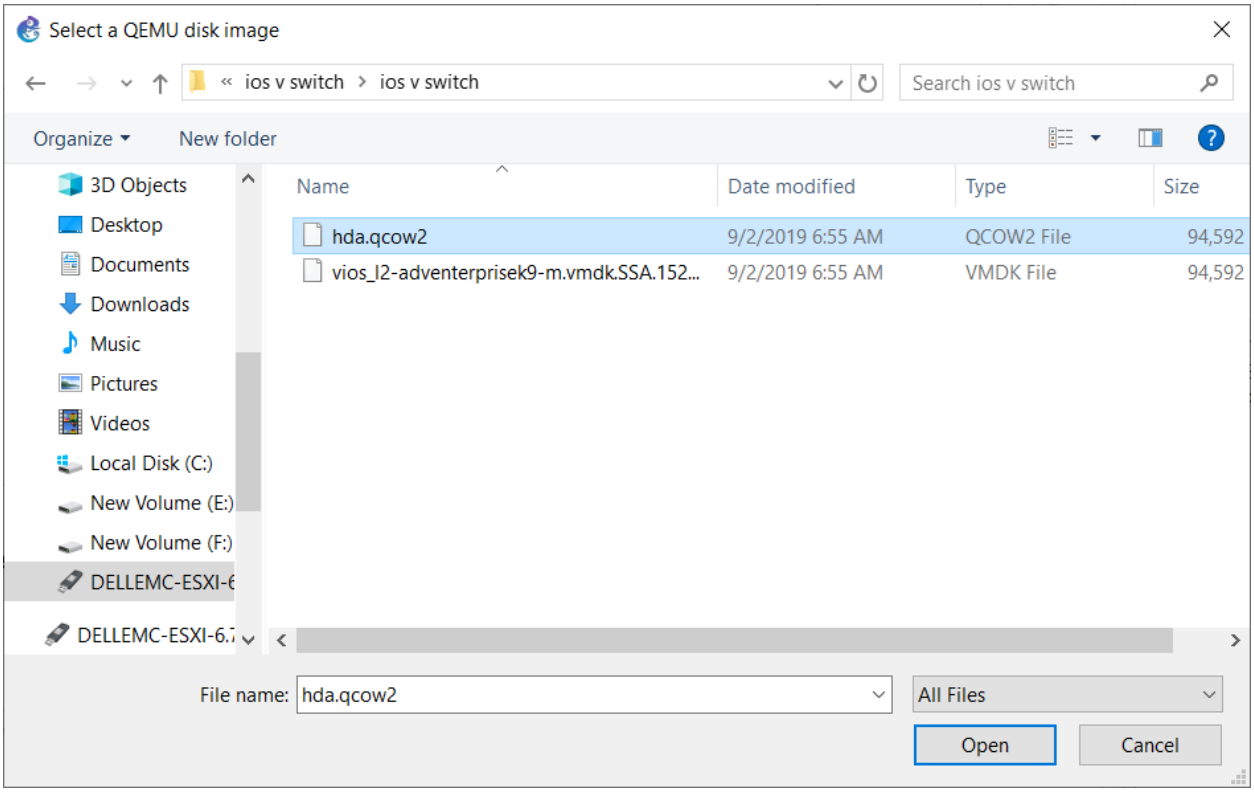

New QEMU VM template
Server
Please choose a server type to run your new QEMU VM.
Server type
Run this Qemu VM on a remote computer
Run this Qemu VM on the GNS3 VM
Run this Qemu VM on my local computer
< Back
Next >
Cancel

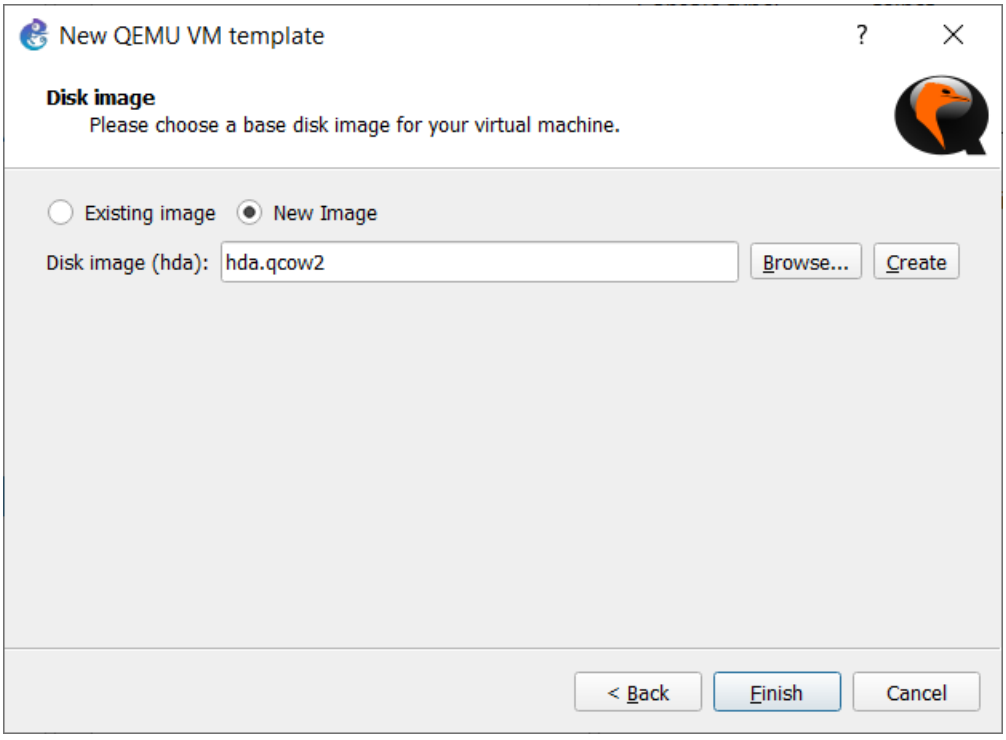

New QEMU VM template
QEMU VM name
Please choose a descriptive name for your new QEMU virtual machine.
Name:
cisco IOV
This is a legacy ASA VM
< Back
Next >
Cancel


New QEMU VM template
QEMU binary and memory
Please check the Qemu binary is correctly set and the virtual machine has enough memory to work.
Qemu binary:
/usr/bin/qemu-system-x86_64 (v2.5.0)
RAM:
256 MB
< Back
Next >
Cancel

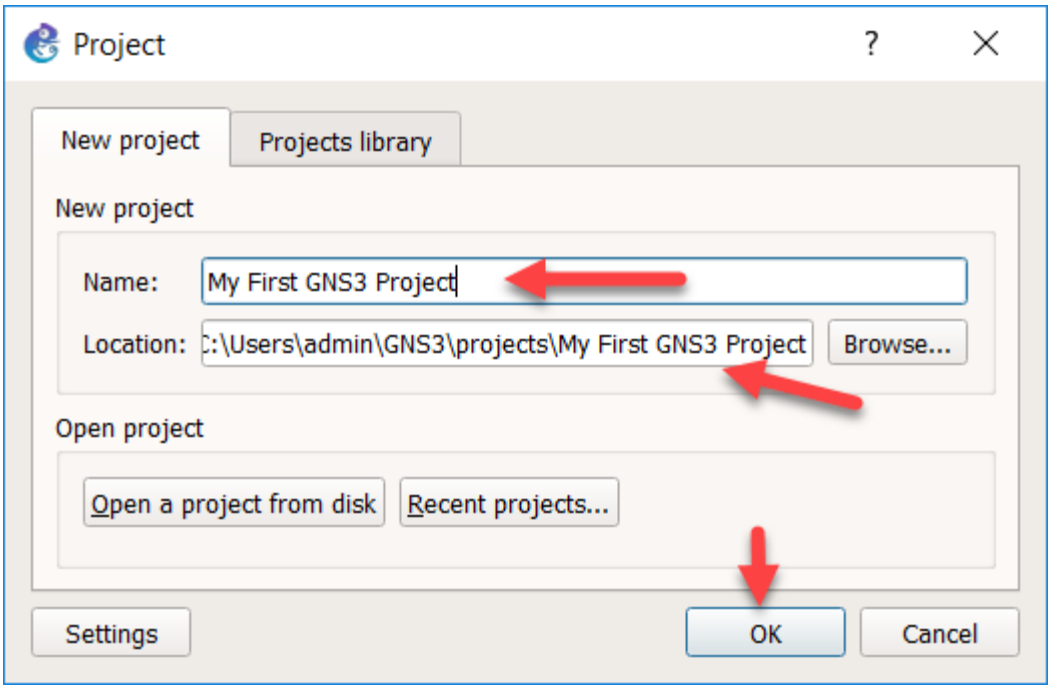

New QEMU VM template
?
Console type
Please choose the console type. Telnet will connect to the serial console of the machine. VNC will connect to graphical output of the machine.
telnet
Note: You don't need to install anything on the VM itself.
< Back
Next >
Cancel


New QEMU VM template
?
Disk image
Please choose a base disk image for your virtual machine.
Existing image
New Image
Disk image (hda):
Browse...
Create
< Back
Finish
Cancel

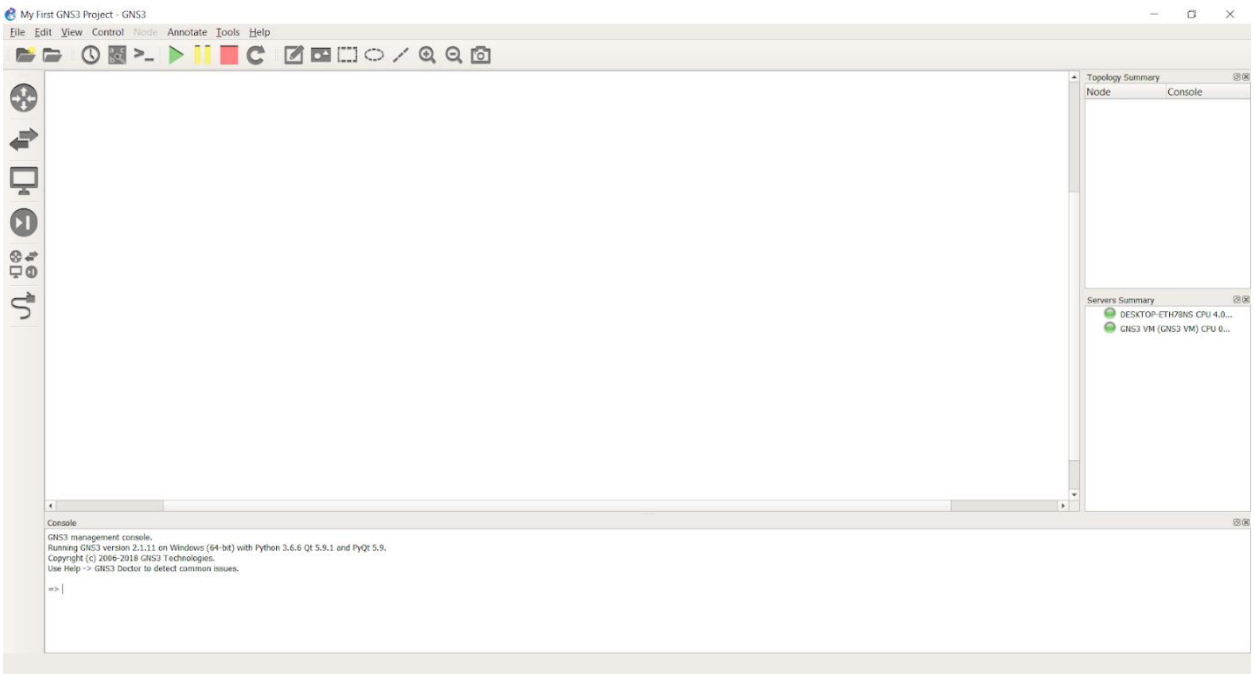

Select a QEMU disk image
ios v switch › ios v switch
Search ios v switch
Organize
New folder
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
New Volume (E:)
New Volume (F:)
DELLEMC-ESXI-6
DELLEMC-ESXI-6.7
Name
Date modified
Type
Size
hda.qcow2
9/2/2019 6:55 AM
QCOW2 File
94,592
vios_l2-adventerprisek9-m.vmdk.SSA.152...
9/2/2019 6:55 AM
VMDK File
94,592
File name:
hda.qcow2
All Files
Open
Cancel


New QEMU VM template
Disk image
Please choose a base disk image for your virtual machine.
Existing image
New Image
Disk image (hda):
hda.qcow2
Browse...
Create
< Back
Finish
Cancel

The **New Project** Window displays. Give your new Project a **Name** and click '**OK**':




The GNS3 workspace displays:




**Congratulations!** You are now ready to create your first GNS3 topologies.