

Import *CSR1000v Router*

Objectives

Import the VirtualBox VM with Cisco IOS-XE

Required Resources

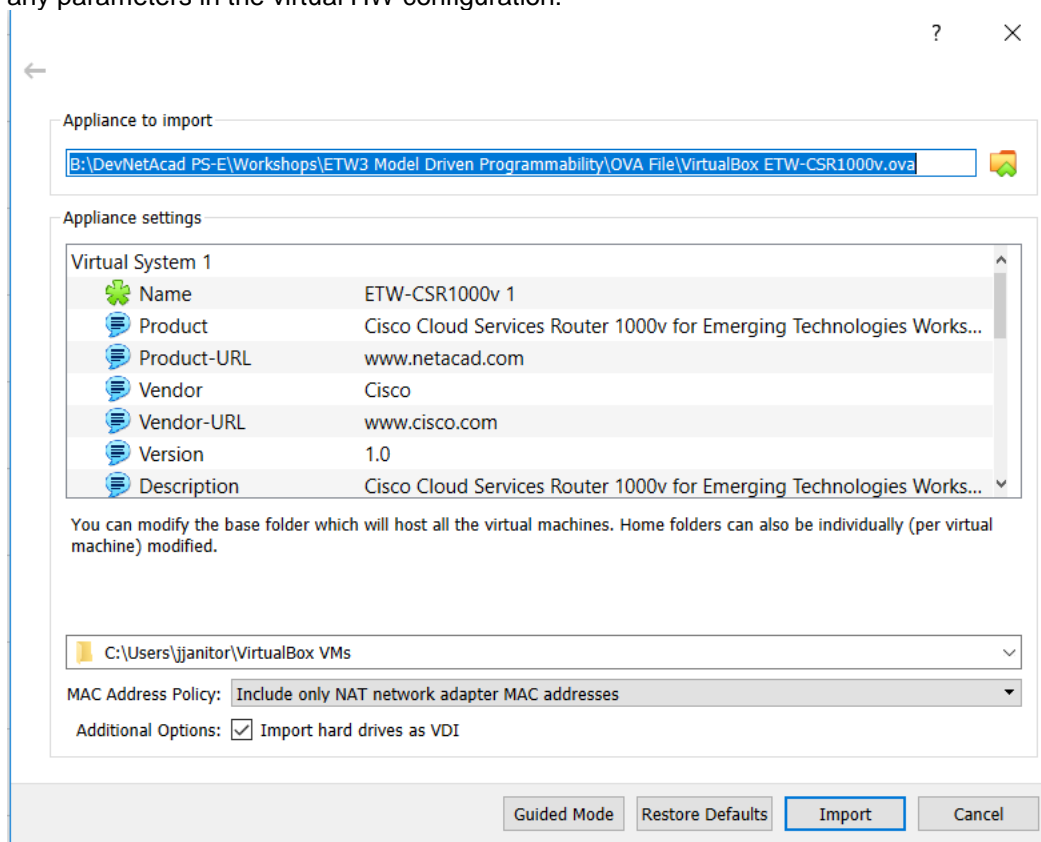
- Host computer with at least 4 GB of RAM and 15 GB of free disk space
- Oracle VirtualBox

Import the VirtualBox VM with Cisco IOS-XE

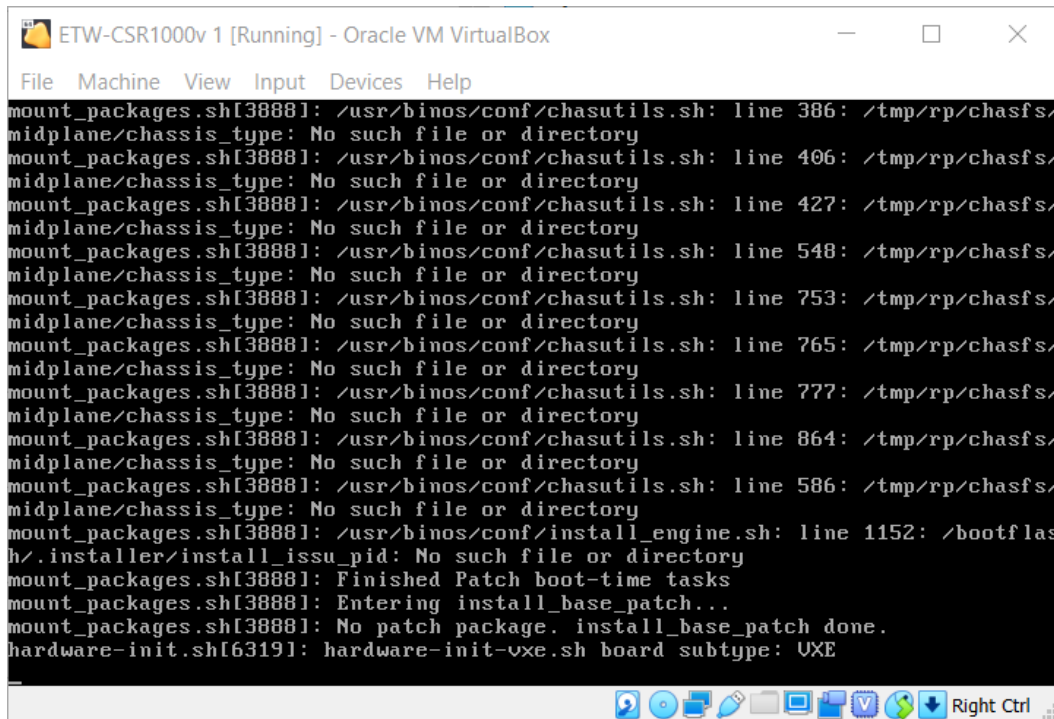
In this Cisco IOS-XE is running in a virtual machine directly on your x86 computer and requires at least 4GB of RAM.

Step 1: Download the VM OVA file

1. Download the csr1000v-universalk9.16.09.04.iso and the *VirtualBox ETW-CSR1000v.ova* Virtual Machine template.
2. Import the OVA file into your VirtualBox environment. While importing the OVA file, do not change any parameters in the virtual HW configuration:



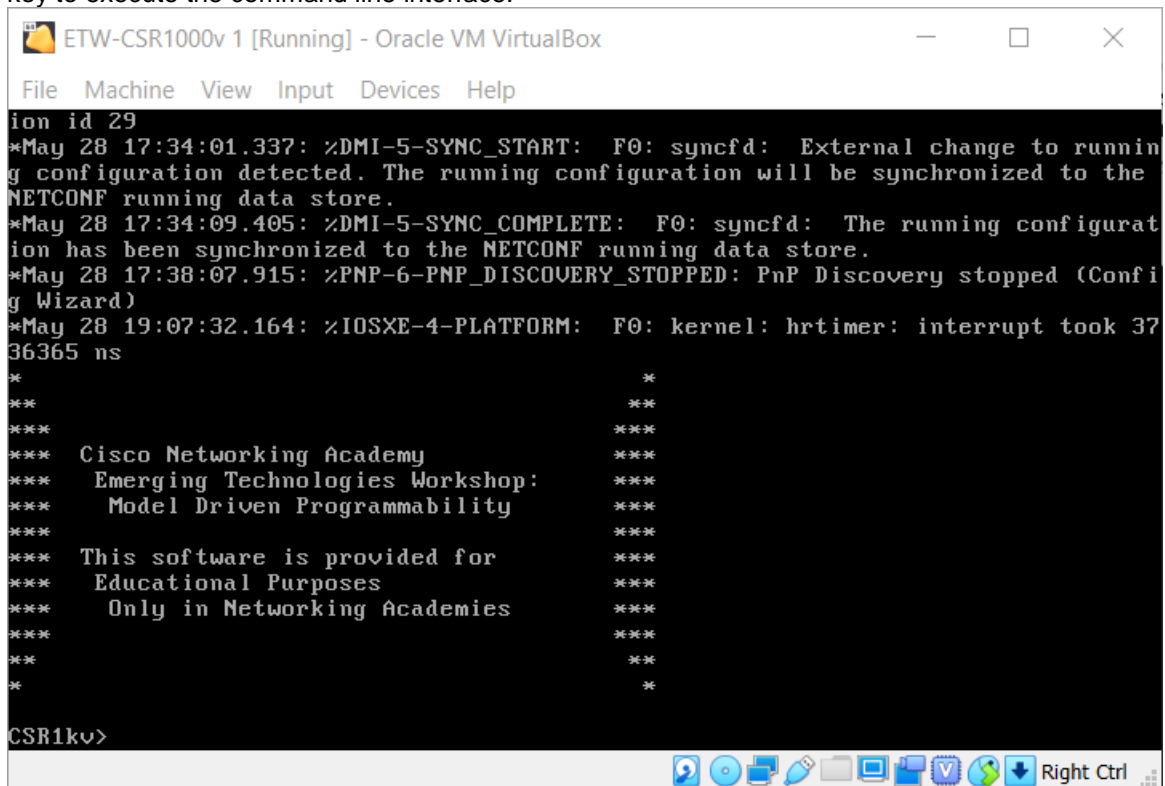
3. In the directory of the Virtual Machine (e.g. c:\Users\USER\VirtualBox VMs\ETW-CSR1000v) replace the "csr1000v-universalk9-install.iso" ISO file, with the CSR1000v ISO file downloaded from the previous instruction (e.g. csr1000v-universalk9.XX.XX.XX.iso).
Note: only instructors with a valid Academy Maintenance contract can download files from software.cisco.com.
4. Start the Virtual Machine and let it boot for the first time. During the first boot, the CSR1000v ISO file is used to install and setup the Virtual Machine with the Cisco IOS-XE software. The installation takes about 5-7 minutes to complete – please be patient and ignore the warning or error messages that might appear on the screen during the installation process.



```
ETW-CSR1000v 1 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
mount_packages.sh[3888]: /usr/binos/conf/chasutils.sh: line 386: /tmp/rp/chasfs/
midplane/chassis_type: No such file or directory
mount_packages.sh[3888]: /usr/binos/conf/chasutils.sh: line 406: /tmp/rp/chasfs/
midplane/chassis_type: No such file or directory
mount_packages.sh[3888]: /usr/binos/conf/chasutils.sh: line 427: /tmp/rp/chasfs/
midplane/chassis_type: No such file or directory
mount_packages.sh[3888]: /usr/binos/conf/chasutils.sh: line 548: /tmp/rp/chasfs/
midplane/chassis_type: No such file or directory
mount_packages.sh[3888]: /usr/binos/conf/chasutils.sh: line 753: /tmp/rp/chasfs/
midplane/chassis_type: No such file or directory
mount_packages.sh[3888]: /usr/binos/conf/chasutils.sh: line 765: /tmp/rp/chasfs/
midplane/chassis_type: No such file or directory
mount_packages.sh[3888]: /usr/binos/conf/chasutils.sh: line 777: /tmp/rp/chasfs/
midplane/chassis_type: No such file or directory
mount_packages.sh[3888]: /usr/binos/conf/chasutils.sh: line 864: /tmp/rp/chasfs/
midplane/chassis_type: No such file or directory
mount_packages.sh[3888]: /usr/binos/conf/chasutils.sh: line 586: /tmp/rp/chasfs/
midplane/chassis_type: No such file or directory
mount_packages.sh[3888]: /usr/binos/conf/install_engine.sh: line 1152: /bootflas
h/.installer/install_issu_pid: No such file or directory
mount_packages.sh[3888]: Finished Patch boot-time tasks
mount_packages.sh[3888]: Entering install_base_patch...
mount_packages.sh[3888]: No patch package. install_base_patch done.
hardware-init.sh[6319]: hardware-init-vxe.sh board subtype: UXE
```

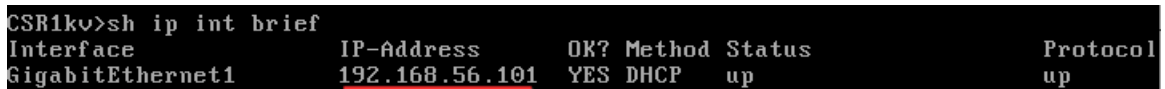
5. Once the installation has been completed, the Virtual Machine will restart and release the ISO file – you can then delete the "csr1000v-universalk9-install.iso" file to free up disk space.

6. The initial boot of the Virtual Machine with Cisco IOS-XE takes about 2-3 minutes. Press the Enter key to execute the command line interface:



```
ion id 29
*May 28 17:34:01.337: %DMI-5-SYNC_START: F0: syncfd: External change to running
configuration detected. The running configuration will be synchronized to the
NETCONF running data store.
*May 28 17:34:09.405: %DMI-5-SYNC_COMPLETE: F0: syncfd: The running configurat
ion has been synchronized to the NETCONF running data store.
*May 28 17:38:07.915: %PNP-6-PNP_DISCOVERY_STOPPED: PnP Discovery stopped (Confi
g Wizard)
*May 28 19:07:32.164: %IOSXE-4-PLATFORM: F0: kernel: hrtimer: interrupt took 37
36365 ns
*
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*** Cisco Networking Academy
*** Emerging Technologies Workshop:
*** Model Driven Programmability
***
*** This software is provided for
*** Educational Purposes
*** Only in Networking Academies
***
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*
CSR1k0v>
```

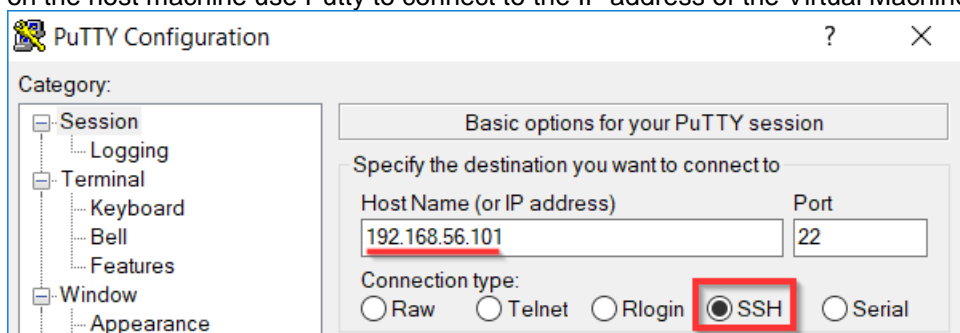
7. The Virtual Machine networking is configured to use the Host-Only network of your host machine. Using the command line interface, enter the “sh ip int brief” command to identify the router’s current IP address:



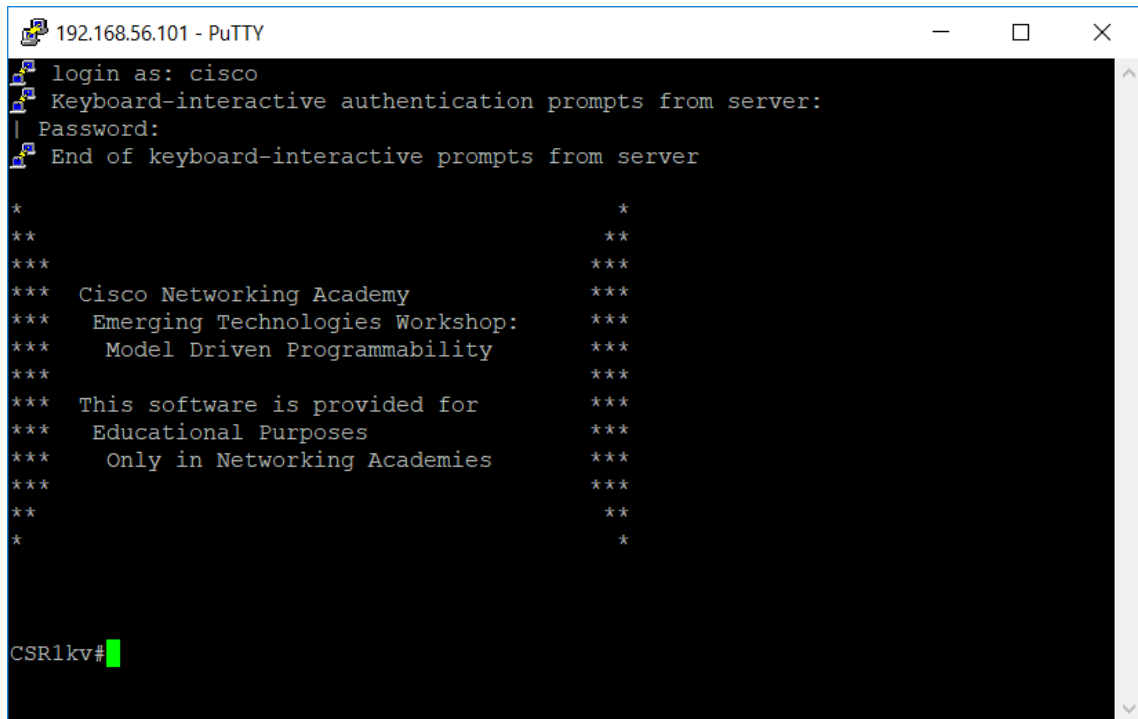
```
CSR1k0v>sh ip int brief
Interface      IP-Address      OK? Method Status      Protocol
GigabitEthernet1 192.168.56.101 YES DHCP    up          up
```

Please take a note of the router’s IP address, for it will be used in the next lab activities.

8. To connect from the host machine to the SSH service of Cisco IOS-XE router in the Virtual Machine, on the host machine use PuTTY to connect to the IP address of the Virtual Machine:



9. The Virtual Machine comes with an initial configuration that enables network programmability lab activities. For example, the NETCONF and RESTCONF API interfaces are pre-configured by default. The default pre-configured privilege 15 level username is `cisco` with the password `cisco123!`



```
192.168.56.101 - PuTTY
login as: cisco
Keyboard-interactive authentication prompts from server:
| Password:
| End of keyboard-interactive prompts from server

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CSR1kv#
```