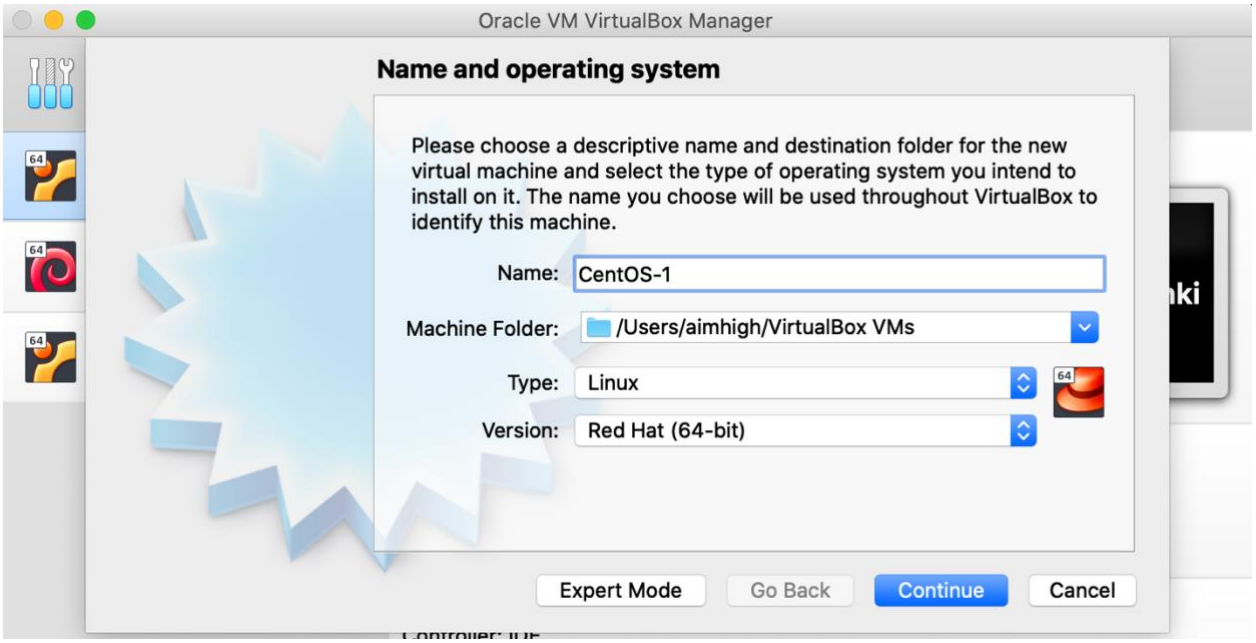
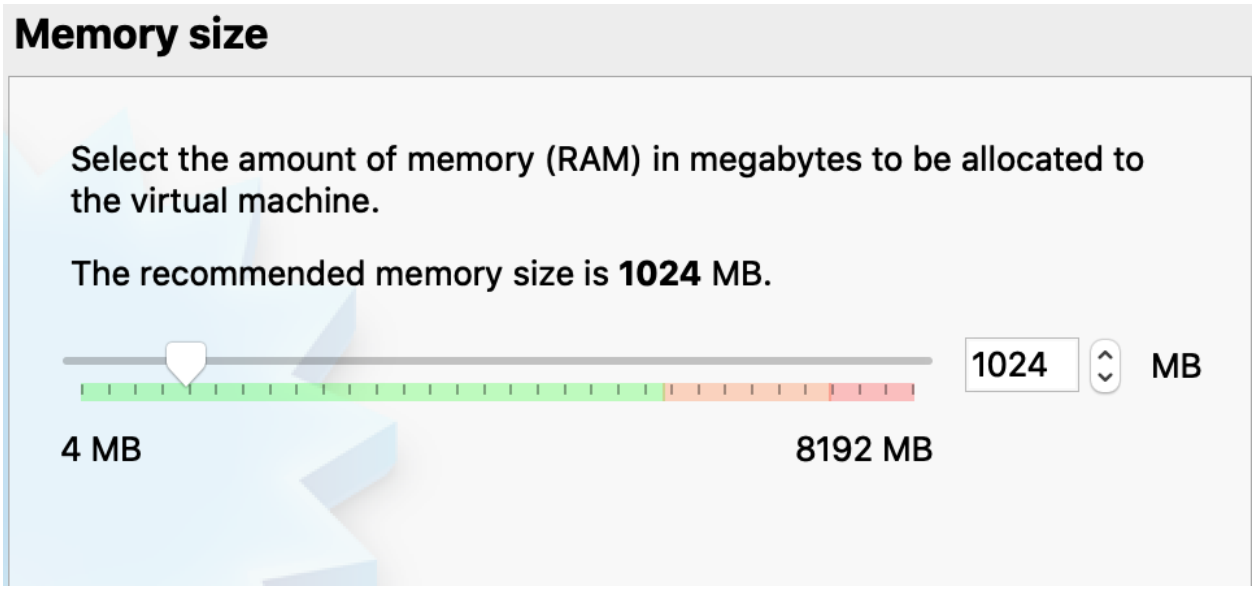
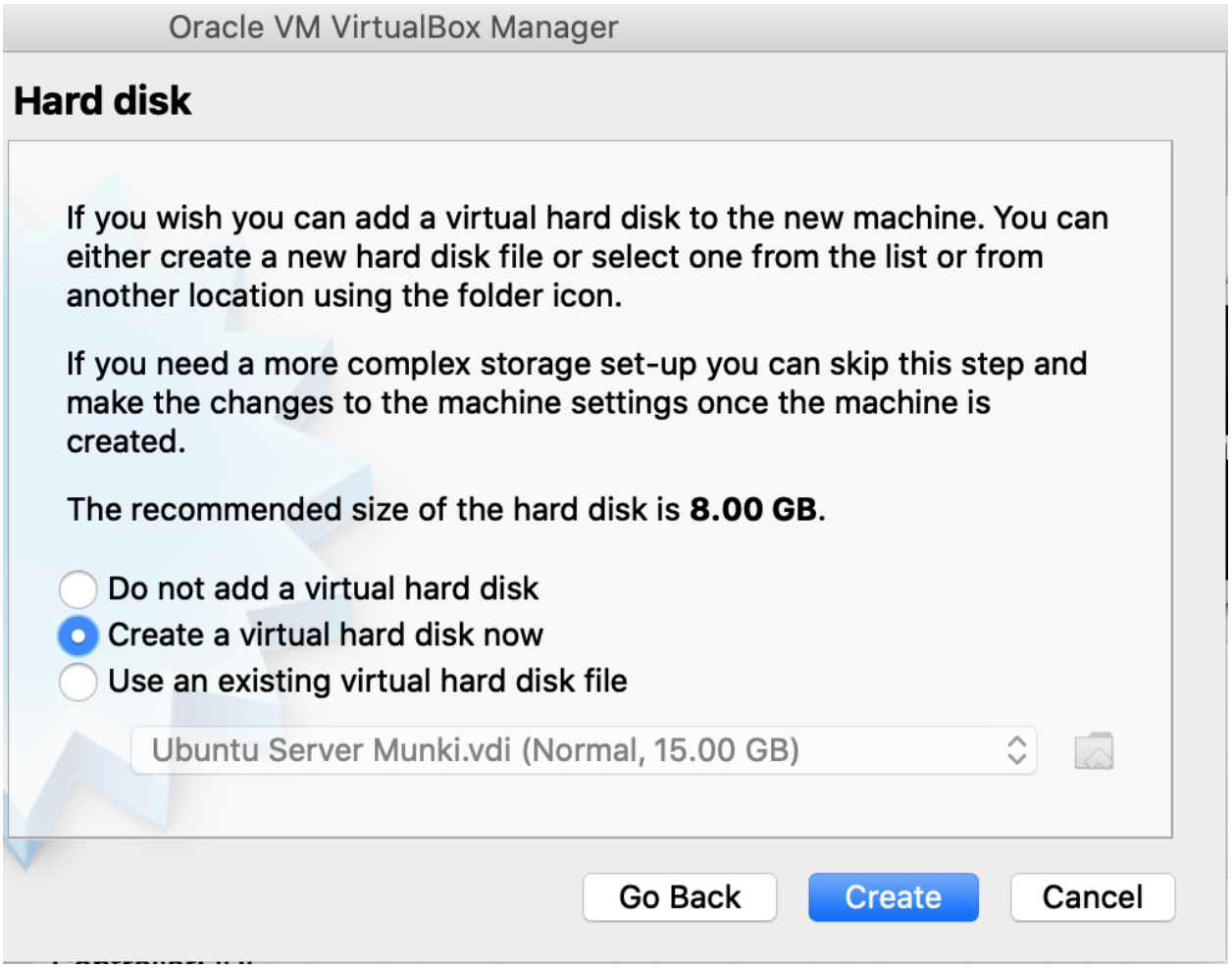
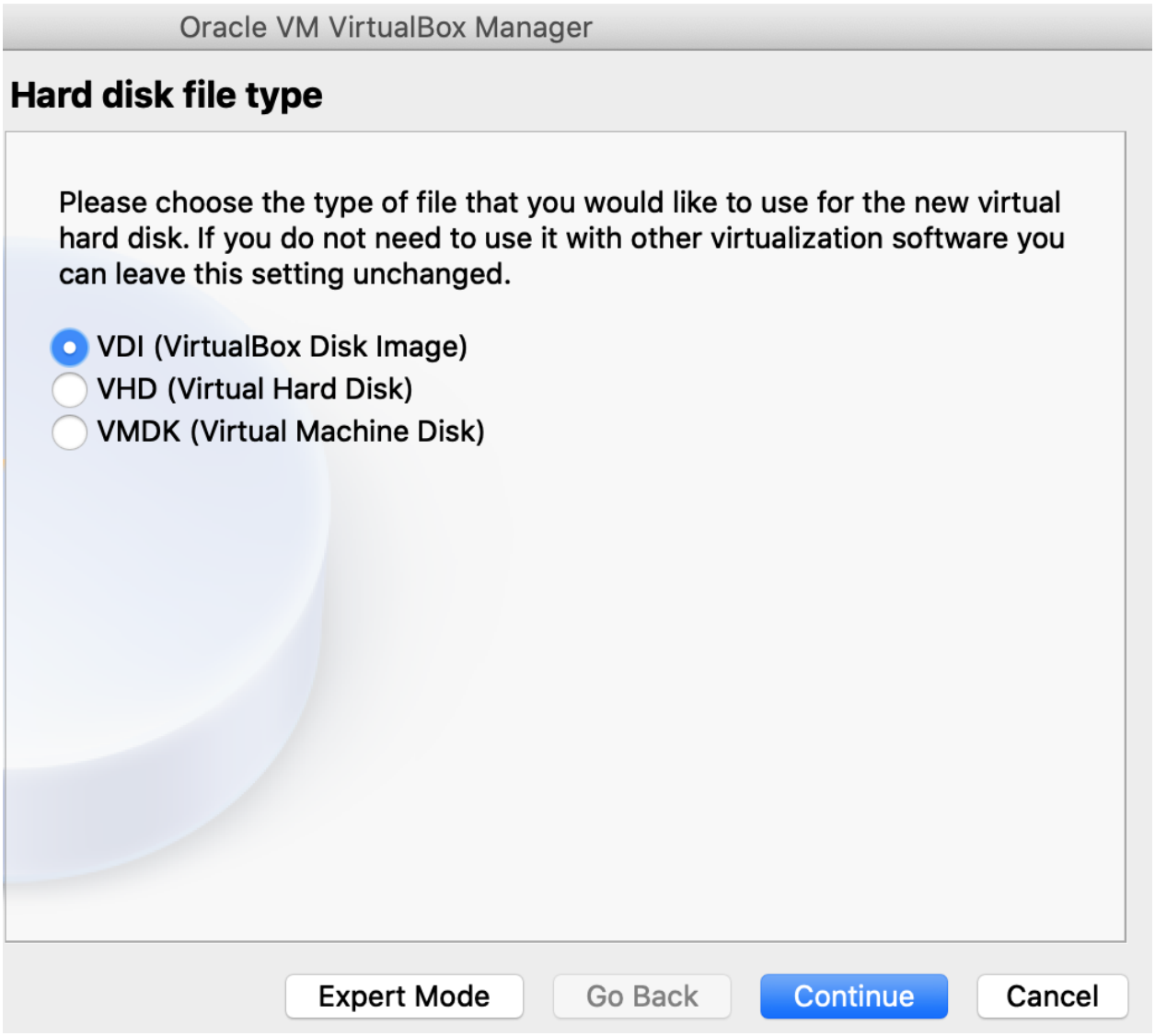
Set up VirtualBox for CentOS7 on MacOS machine

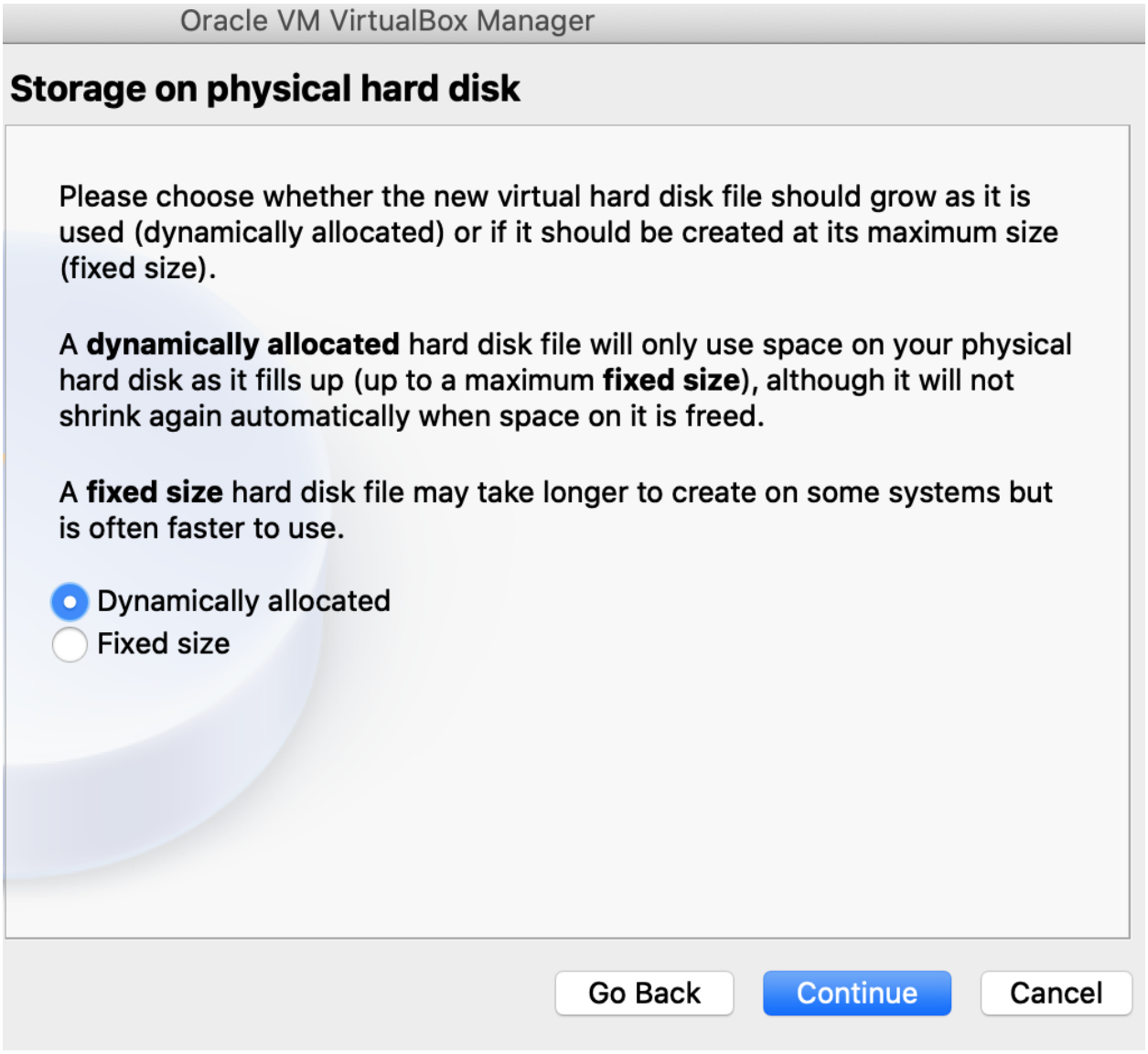
Download VirtualBox

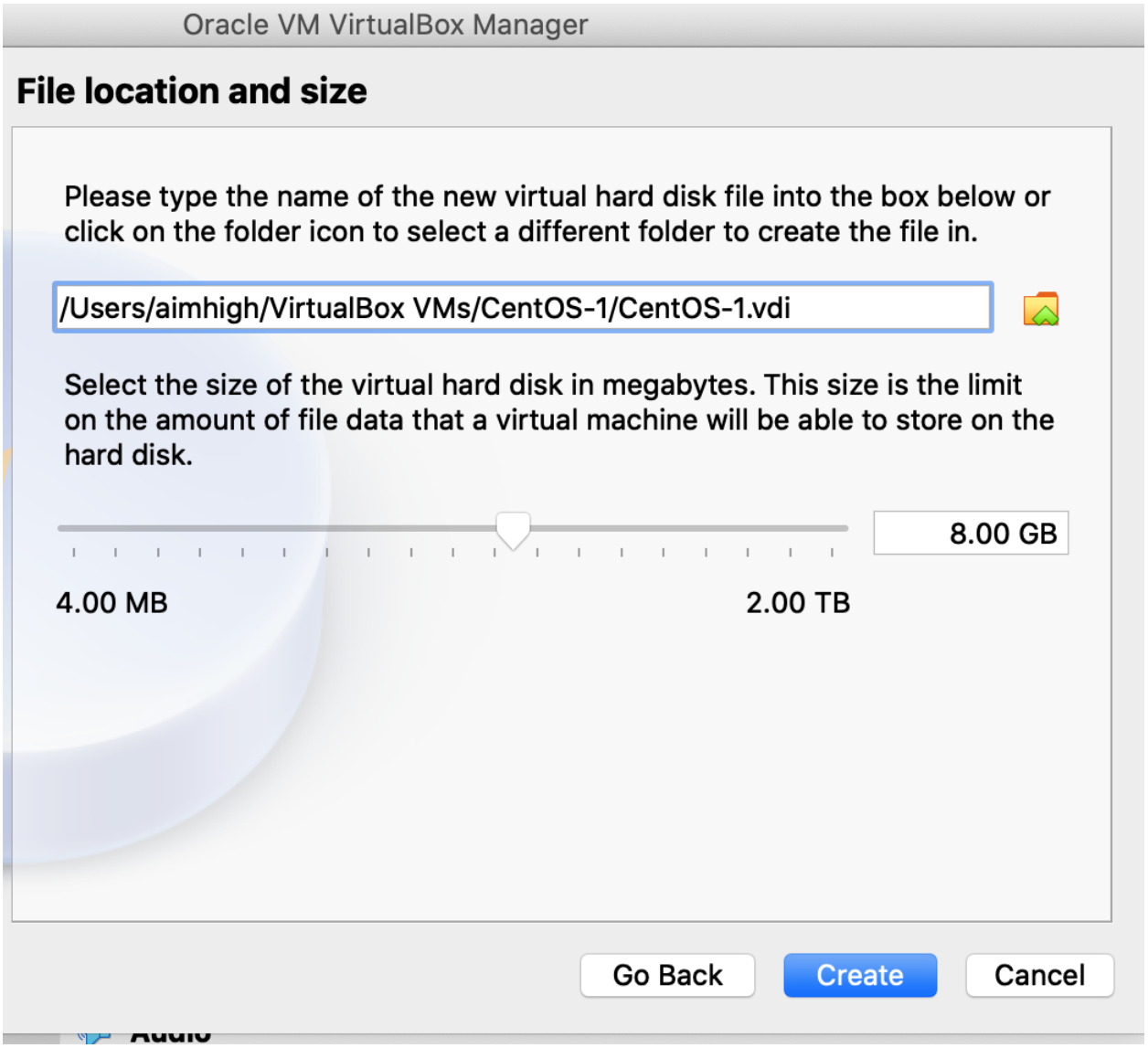


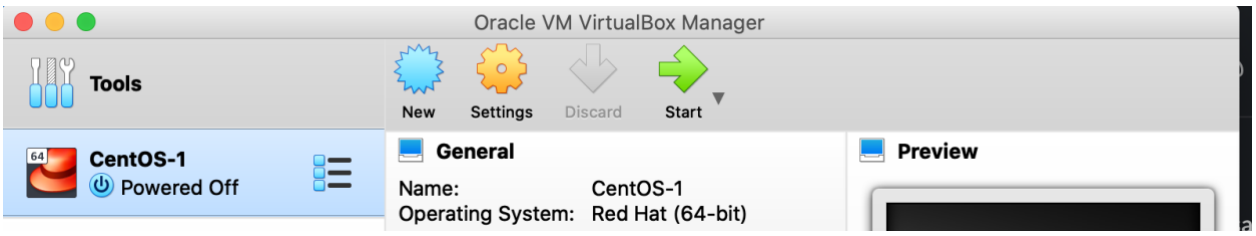


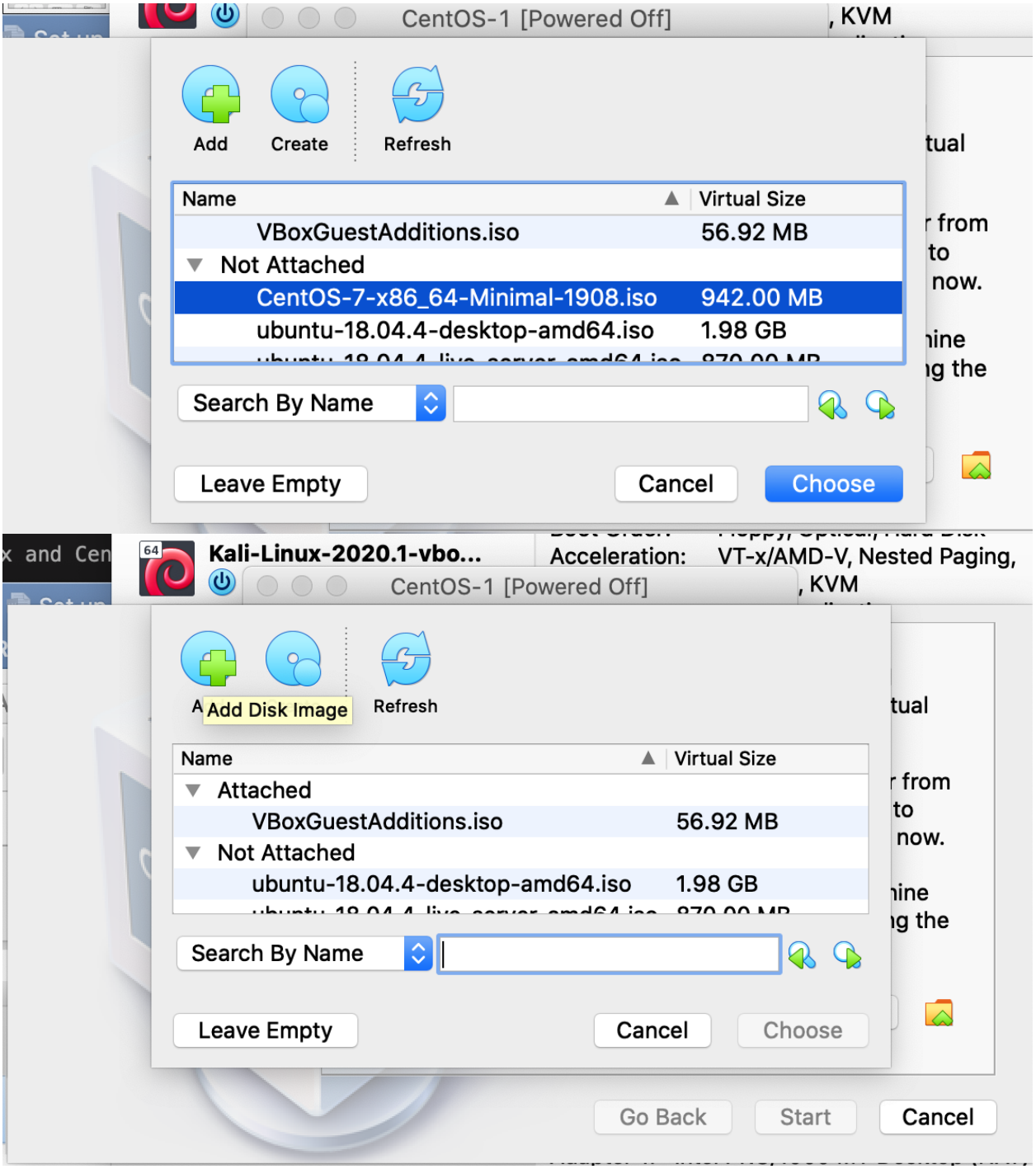

Oracle VM VirtualBox Manager
Hard disk
If you wish you can add a virtual hard disk to the new machine. You can either create a new hard disk file or select one from the list or from another location using the folder icon.
If you need a more complex storage set-up you can skip this step and make the changes to the machine settings once the machine is created.
The recommended size of the hard disk is 8.00 GB.
Do not add a virtual hard disk
Create a virtual hard disk now
Use an existing virtual hard disk file
Ubuntu Server Munki.vdi (Normal, 15.00 GB)
Go Back
Create
Cancel


Oracle VM VirtualBox Manager
Hard disk file type
Please choose the type of file that you would like to use for the new virtual hard disk. If you do not need to use it with other virtualization software you can leave this setting unchanged.
VDI (VirtualBox Disk Image)
VHD (Virtual Hard Disk)
VMDK (Virtual Machine Disk)
Expert Mode
Go Back
Continue
Cancel


Oracle VM VirtualBox Manager
Storage on physical hard disk
Please choose whether the new virtual hard disk file should grow as it is used (dynamically allocated) or if it should be created at its maximum size (fixed size).
A dynamically allocated hard disk file will only use space on your physical hard disk as it fills up (up to a maximum fixed size), although it will not shrink again automatically when space on it is freed.
A fixed size hard disk file may take longer to create on some systems but is often faster to use.
Dynamically allocated
Fixed size
Go Back
Continue
Cancel

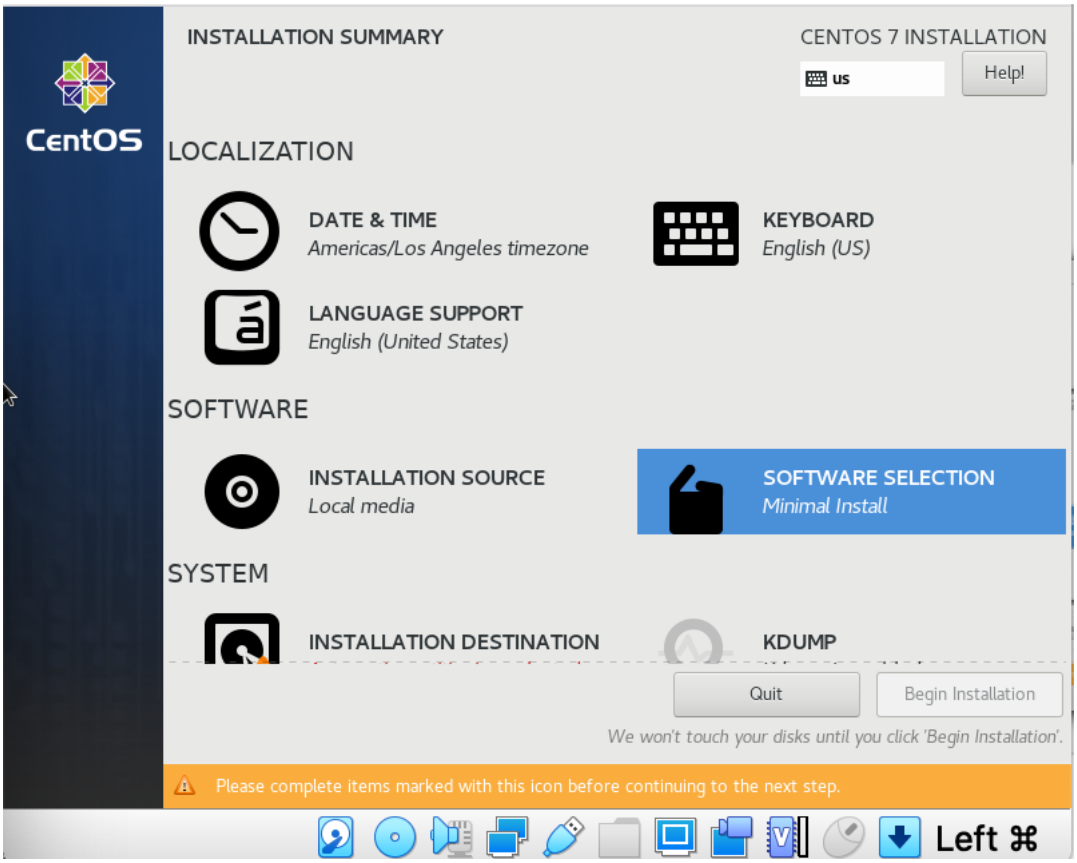

Oracle VM VirtualBox Manager
File location and size
Please type the name of the new virtual hard disk file into the box below or click on the folder icon to select a different folder to create the file in.
/Users/aimhigh/VirtualBox VMs/CentOS-1/CentOS-1.vdi
Select the size of the virtual hard disk in megabytes. This size is the limit on the amount of file data that a virtual machine will be able to store on the hard disk.
8.00 GB
4.00 MB
2.00 TB
Go Back
Create
Cancel

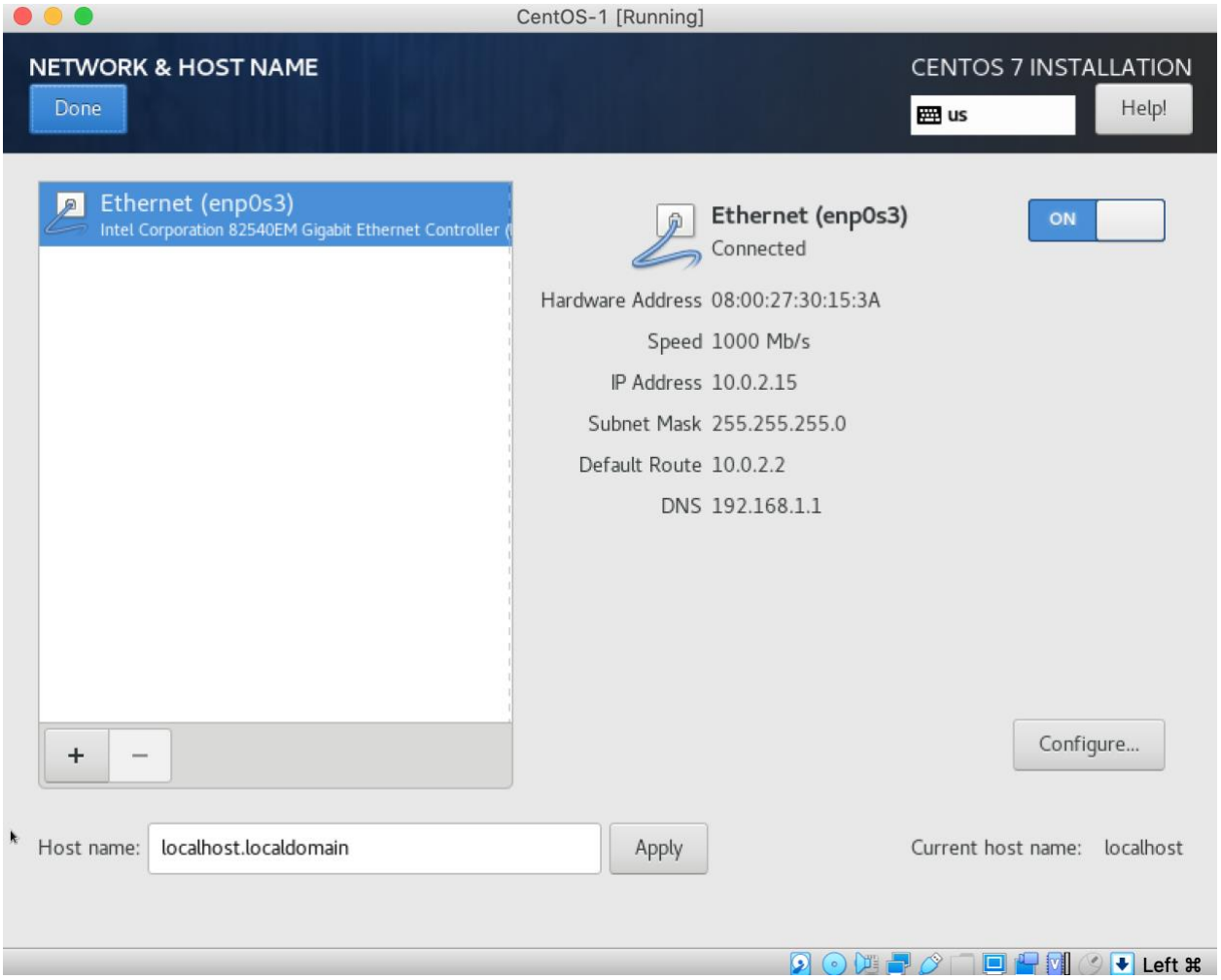

Oracle VM VirtualBox Manager
Tools
New
Settings
Discard
Start
CentOS-1
Powered Off
General
Name: CentOS-1
Operating System: Red Hat (64-bit)
Preview

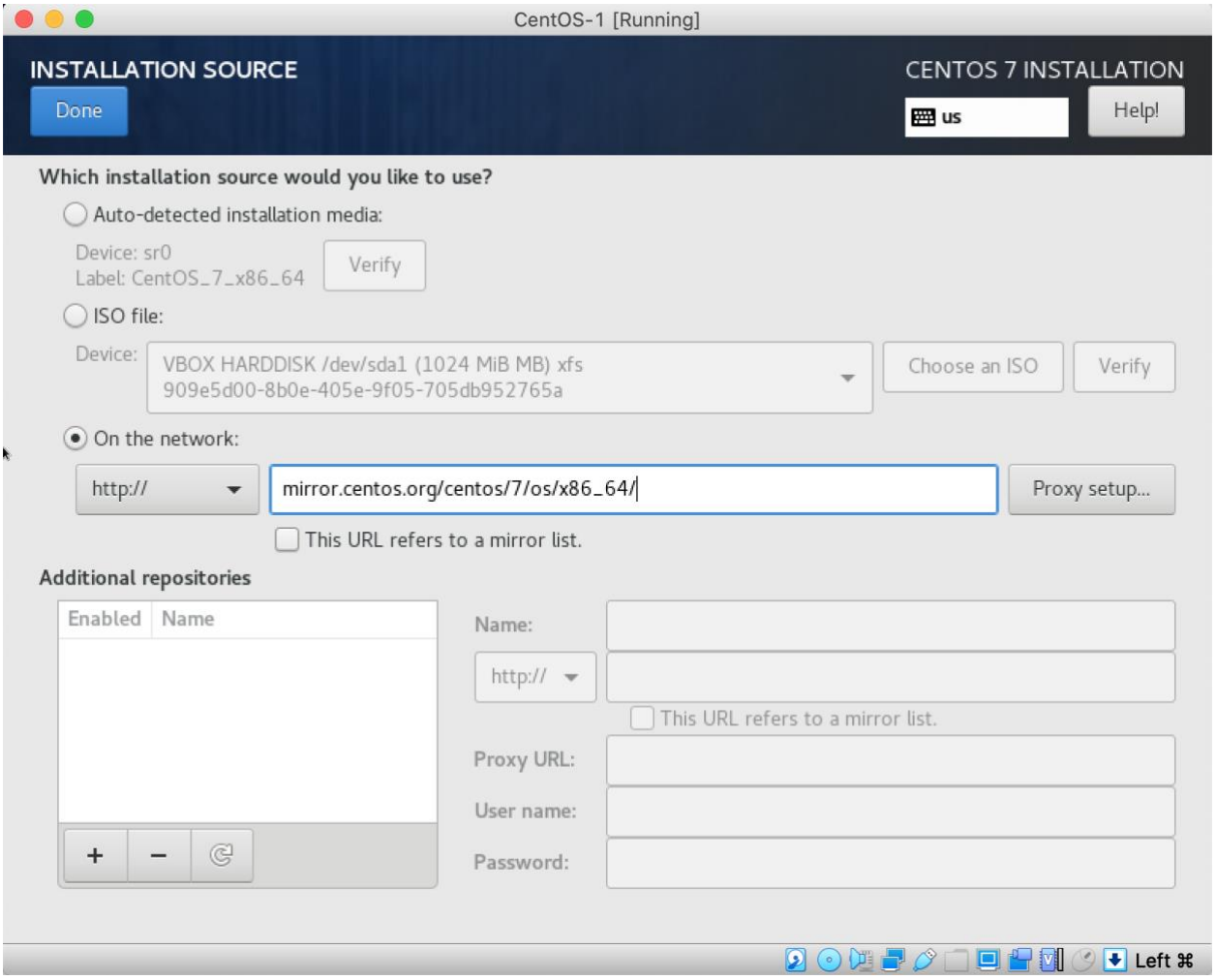

CentOS-1 [Powered Off]
Add
Create
Refresh
Name
Virtual Size
VBoxGuestAdditions.iso
56.92 MB
Not Attached
CentOS-7-x86_64-Minimal-1908.iso
942.00 MB
ubuntu-18.04.4-desktop-amd64.iso
1.98 GB
Search By Name
Leave Empty
Cancel
Choose
Kali-Linux-2020.1-vbo...
Acceleration:
VT-x/AMD-V, Nested Paging,
KVM
CentOS-1 [Powered Off]
Add Disk Image
Refresh
Name
Virtual Size
Attached
VBoxGuestAdditions.iso
56.92 MB
Not Attached
ubuntu-18.04.4-desktop-amd64.iso
1.98 GB
Search By Name
Leave Empty
Cancel
Choose
Go Back
Start
Cancel

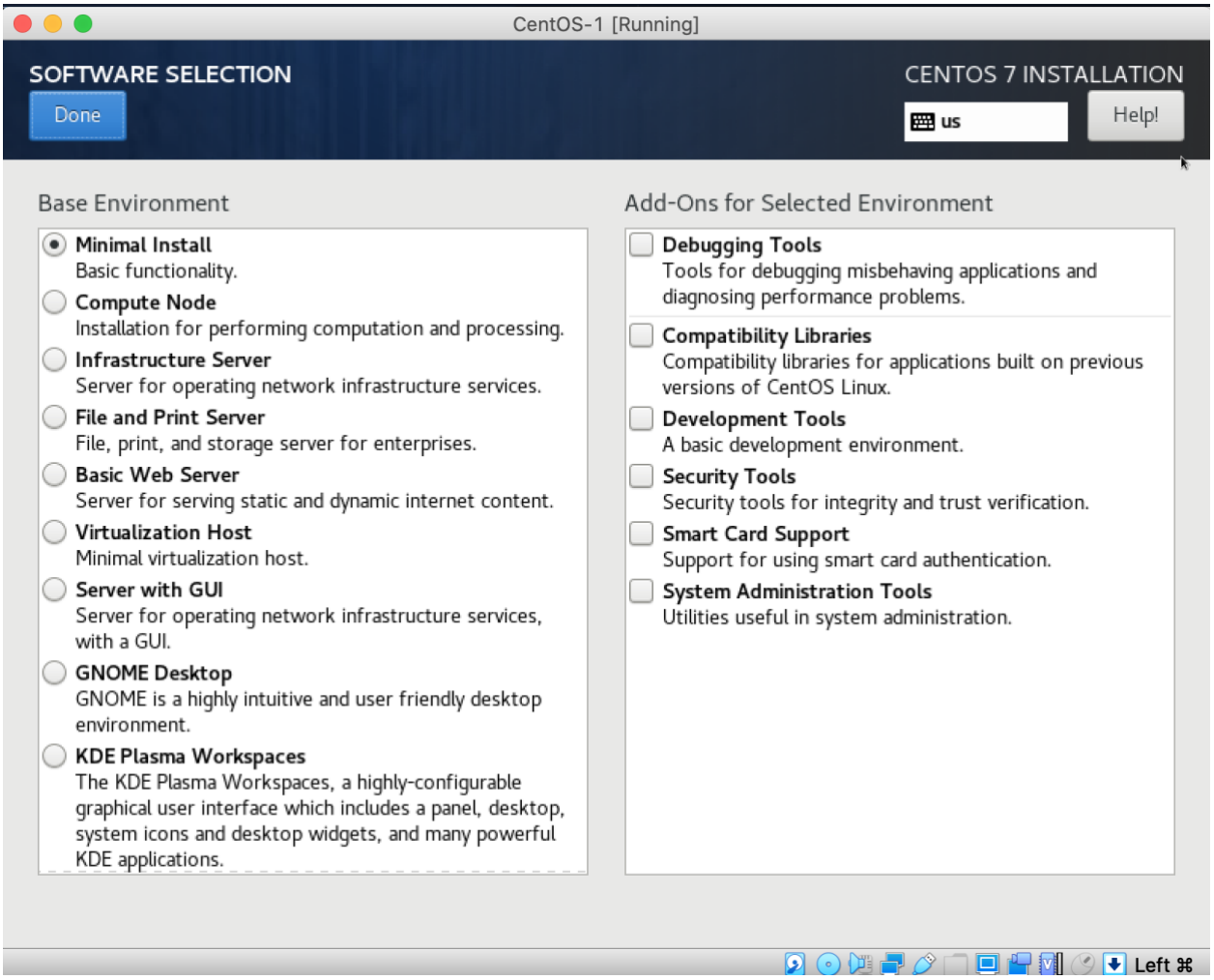
Start CentOS-1 VM
Hover over “Install CentOS 7 Media” option and press [Enter]

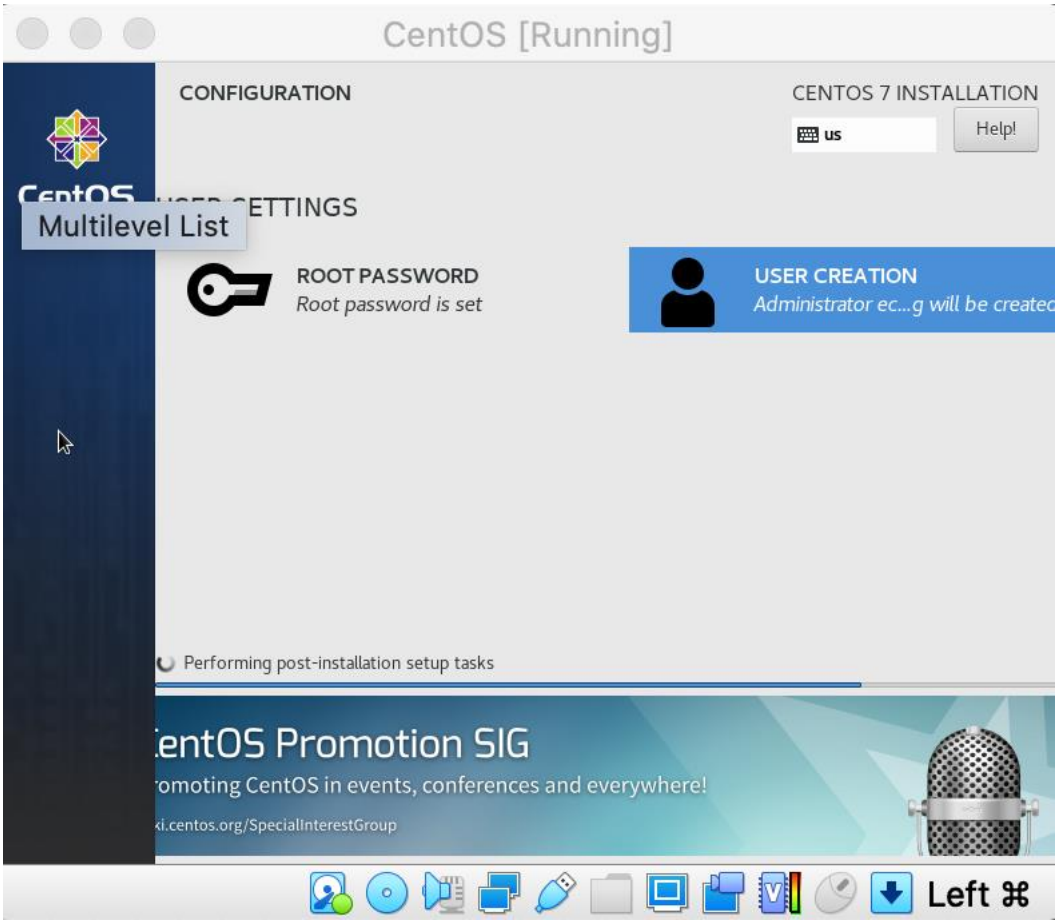
CentOS-1 [Running]
CentOS
CENTOS 7 INSTALLATION
us
Help!
WELCOME TO CENTOS 7.
What language would you like to use during the installation process?
English English
Afrikaans Afrikaans
አማርኛ Amharic
العربية Arabic
অসমীয়া Assamese
Asturianu Asturian
Беларуская Belarusian
Български Bulgarian
বাংলা Bengali
English (United States)
English (United Kingdom)
English (India)
English (Australia)
English (Canada)
English (Denmark)
English (Ireland)
English (New Zealand)
English (Nigeria)
English (Hong Kong SAR China)
Quit
Continue
Left ⌘


INSTALLATION SUMMARY
CENTOS 7 INSTALLATION
us
Help!
CentOS
LOCALIZATION
DATE & TIME
Americas/Los Angeles timezone
KEYBOARD
English (US)
LANGUAGE SUPPORT
English (United States)
SOFTWARE
INSTALLATION SOURCE
Local media
SOFTWARE SELECTION
Minimal Install
SYSTEM
INSTALLATION DESTINATION
KDUMP
Quit
Begin Installation
We won't touch your disks until you click 'Begin Installation'.
Please complete items marked with this icon before continuing to the next step.
Left ⌘


CentOS-1 [Running]
NETWORK & HOST NAME
Done
CENTOS 7 INSTALLATION
us
Help!
Ethernet (enp0s3)
Intel Corporation 82540EM Gigabit Ethernet Controller (
Ethernet (enp0s3)
Connected
ON
Hardware Address 08:00:27:30:15:3A
Speed 1000 Mb/s
IP Address 10.0.2.15
Subnet Mask 255.255.255.0
Default Route 10.0.2.2
DNS 192.168.1.1
+
−
Configure...
Host name:
localhost.localdomain
Apply
Current host name: localhost
Left ⌘


CentOS-1 [Running]
INSTALLATION SOURCE
Done
CENTOS 7 INSTALLATION
us
Help!
Which installation source would you like to use?
Auto-detected installation media:
Device: sr0
Label: CentOS_7_x86_64
Verify
ISO file:
Device:
VBOX HARDDISK /dev/sda1 (1024 MiB MB) xfs
909e5d00-8b0e-405e-9f05-705db952765a
Choose an ISO
Verify
On the network:
http://
mirror.centos.org/centos/7/os/x86_64/
Proxy setup...
This URL refers to a mirror list.
Additional repositories
Enabled
Name
Name:
http://
This URL refers to a mirror list.
Proxy URL:
User name:
Password:
Left ⌘


CentOS-1 [Running]
SOFTWARE SELECTION
Done
CENTOS 7 INSTALLATION
us
Help!
Base Environment
Minimal Install
Basic functionality.
Compute Node
Installation for performing computation and processing.
Infrastructure Server
Server for operating network infrastructure services.
File and Print Server
File, print, and storage server for enterprises.
Basic Web Server
Server for serving static and dynamic internet content.
Virtualization Host
Minimal virtualization host.
Server with GUI
Server for operating network infrastructure services, with a GUI.
GNOME Desktop
GNOME is a highly intuitive and user friendly desktop environment.
KDE Plasma Workspaces
The KDE Plasma Workspaces, a highly-configurable graphical user interface which includes a panel, desktop, system icons and desktop widgets, and many powerful KDE applications.
Add-Ons for Selected Environment
Debugging Tools
Tools for debugging misbehaving applications and diagnosing performance problems.
Compatibility Libraries
Compatibility libraries for applications built on previous versions of CentOS Linux.
Development Tools
A basic development environment.
Security Tools
Security tools for integrity and trust verification.
Smart Card Support
Support for using smart card authentication.
System Administration Tools
Utilities useful in system administration.
Left ⌘

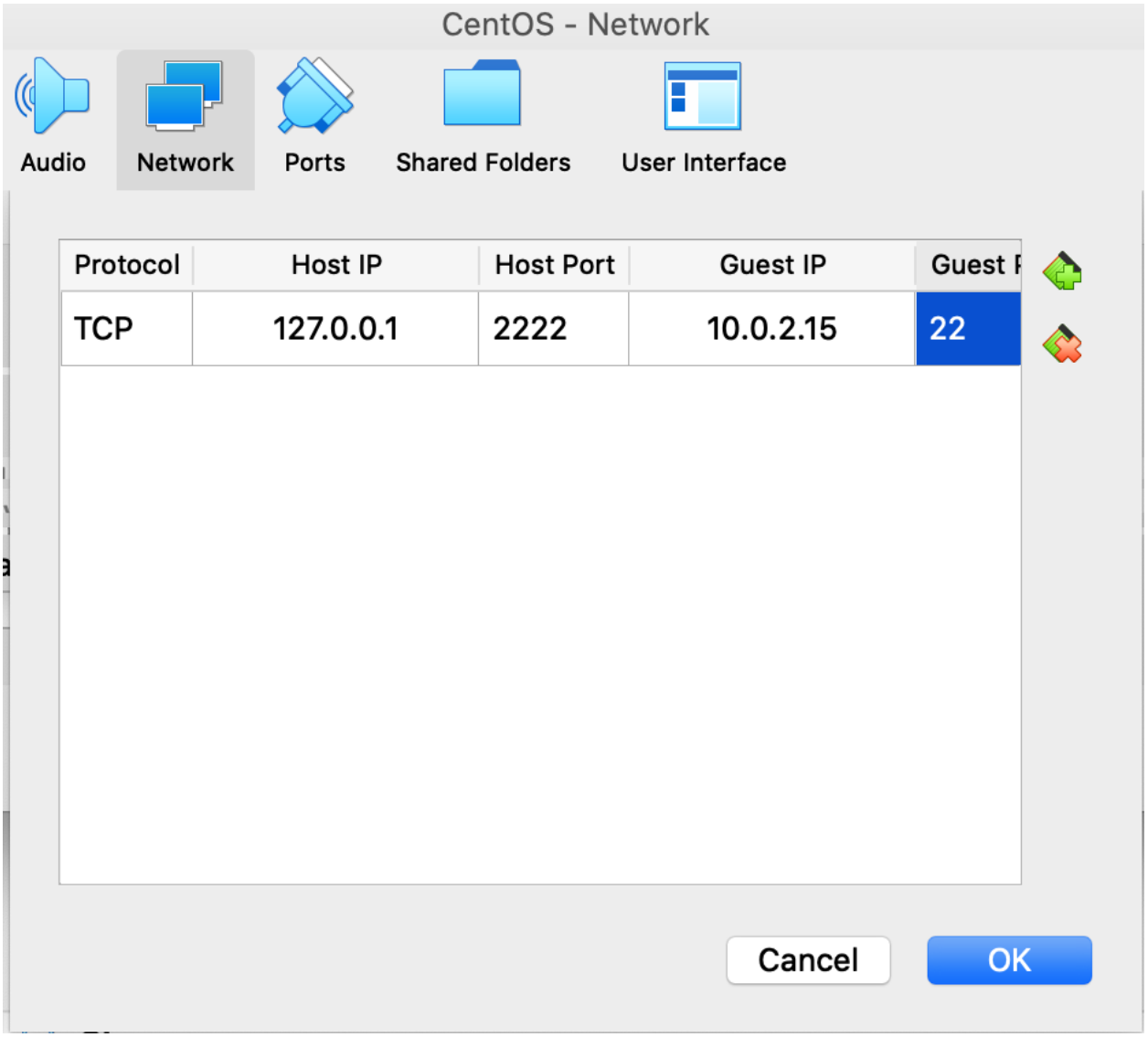


Log into VM from the host via SSH
On your VM (CentOS): Enable sshd service to start when server is booted and start it.
$ sudo systemctl enable sshd
$ sudo systemctl start sshd
$ sudo systemctl status sshd

```
[eching@localhost ~]$ sudo systemctl status sshd
● sshd.service - OpenSSH server daemon
   Loaded: loaded (/usr/lib/systemd/system/sshd.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2020-03-23 15:52:18 PDT; 7min ago
     Docs: man:sshd(8)
           man:sshd_config(5)
 Main PID: 1069 (sshd)
   CGroup: /system.slice/sshd.service
           └─1069 /usr/sbin/sshd -D

Mar 23 15:52:18 localhost.localdomain systemd[1]: Starting OpenSSH server daemon...
Mar 23 15:52:18 localhost.localdomain sshd[1069]: Server listening on 0.0.0.0 port 22.
Mar 23 15:52:18 localhost.localdomain sshd[1069]: Server listening on :: port 22.
Mar 23 15:52:18 localhost.localdomain systemd[1]: Started OpenSSH server daemon.
[eching@localhost ~]$
```

Set up port forwarding for the VirtualBox NAT network
On VirtualBox's CentOS > Settings > Network > Advanced > Port Forwarding
Map localhost:2222 on host (MacOS) to 10.0.2.15:22 on guest (CentOS)



Now we can ssh into our CentOS VM:
$ ssh eching@127.0.0.1 -p 2222

```
Munki-server:~ aimhigh$ ssh eching@127.0.0.1 -p 2222
The authenticity of host '[127.0.0.1]:2222 ([127.0.0.1]:2222)' can't be establis
hed.
ECDSA key fingerprint is SHA256:4xOz3BM+A197EKHv4zX2jwMrVS+zIDaYlOpv6bI9FlY.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '[127.0.0.1]:2222' (ECDSA) to the list of known hosts
.
eching@127.0.0.1's password:
Last login: Mon Mar 23 15:57:36 2020
[eching@localhost ~]$
```

Update your VM
$ sudo yum update

If updating kernel or initialization system, do a reboot. Most likely will be the case when setting up new VM.

```
$ sudo systemctl reboot
```