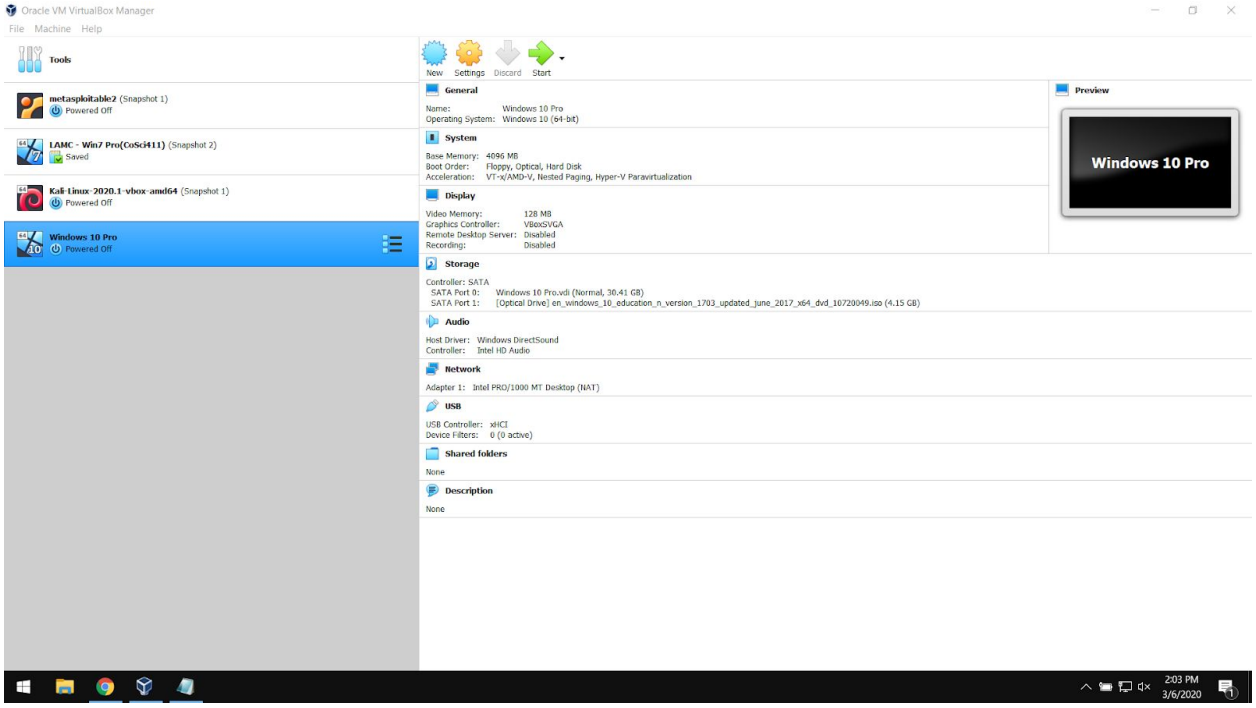
Windows Server VBox

1. Each assignment has a goal. What is the assignment and how will you find the solution?

> The goal for this assignment is to install and document the installation of a Microsoft Windows Server 2012R2 virtual image via VirtualBox from a Windows 10 host system. Screenshots will provide the documentation and final result of a working virtual environment. Procedure notes will be recorded above each image.

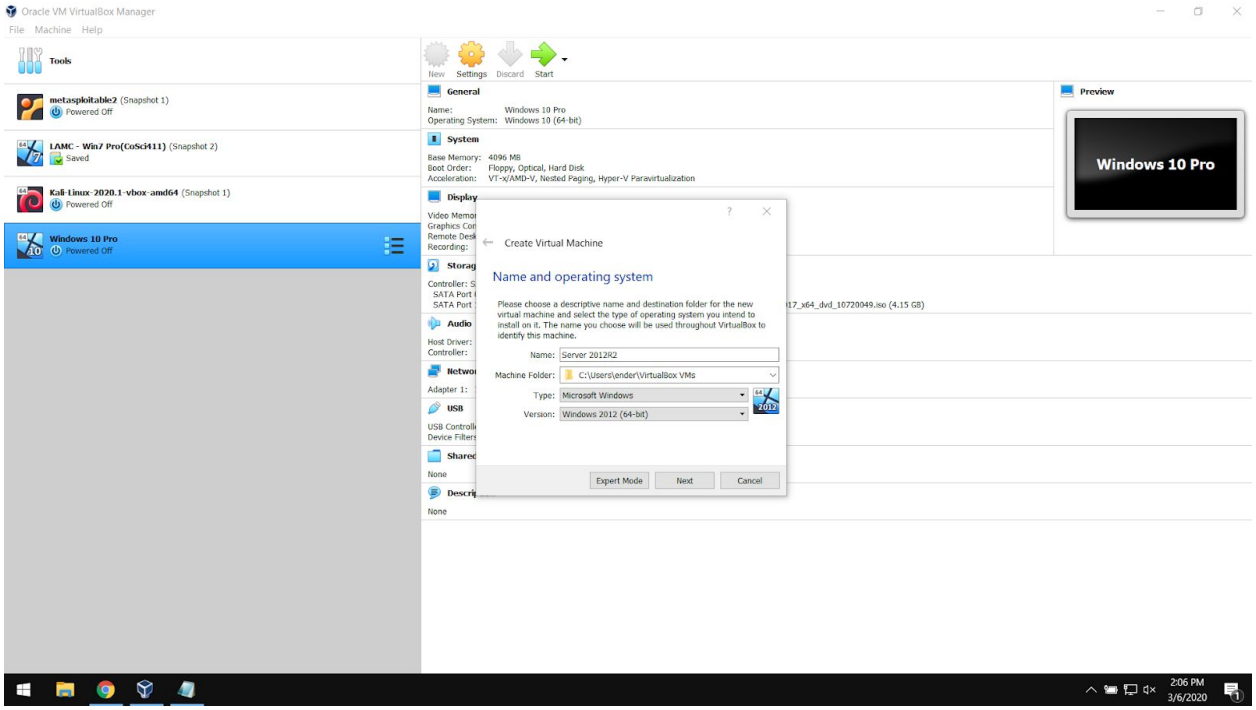
2. Demonstration of the steps taken with screenshots (snipping tool) from your computer. Many students who understand the material often go for a screenshot of the final result. You need to show the steps you took as you took them.

Starting at the VirtualBox Main menu



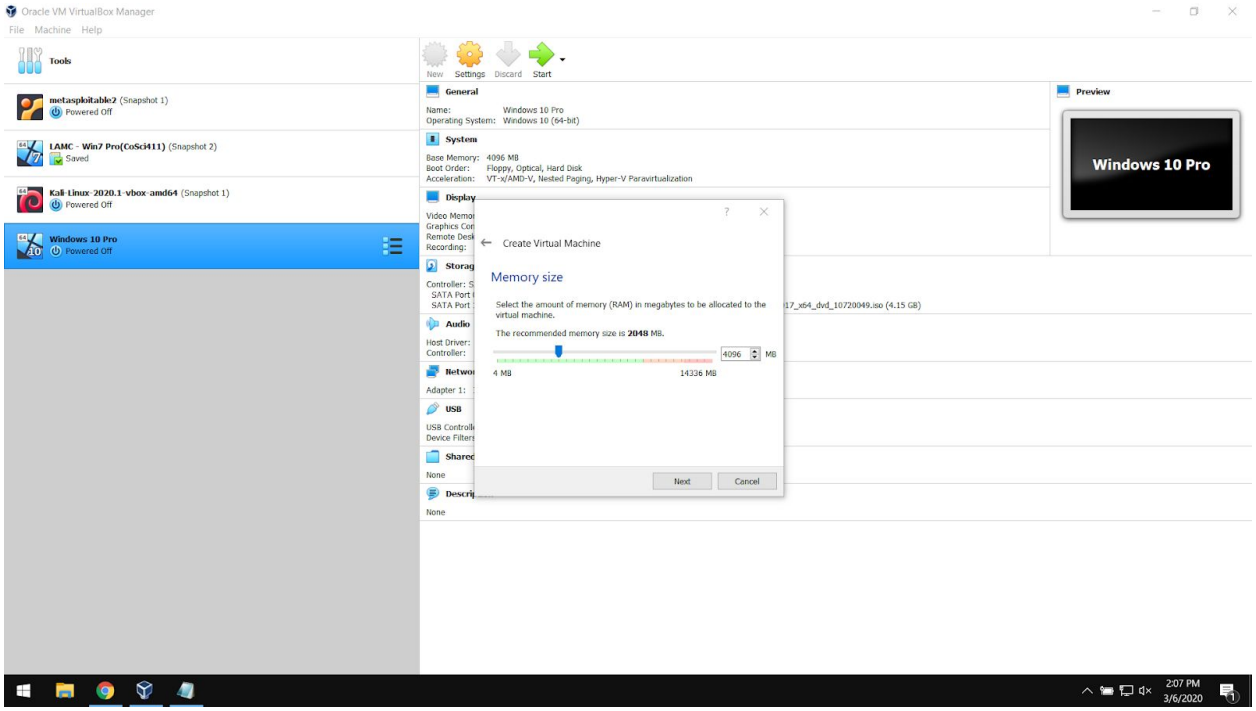
VirtualBox main menu

Windows Server 2012R2 install and named accordingly. Folder, type and version specified.



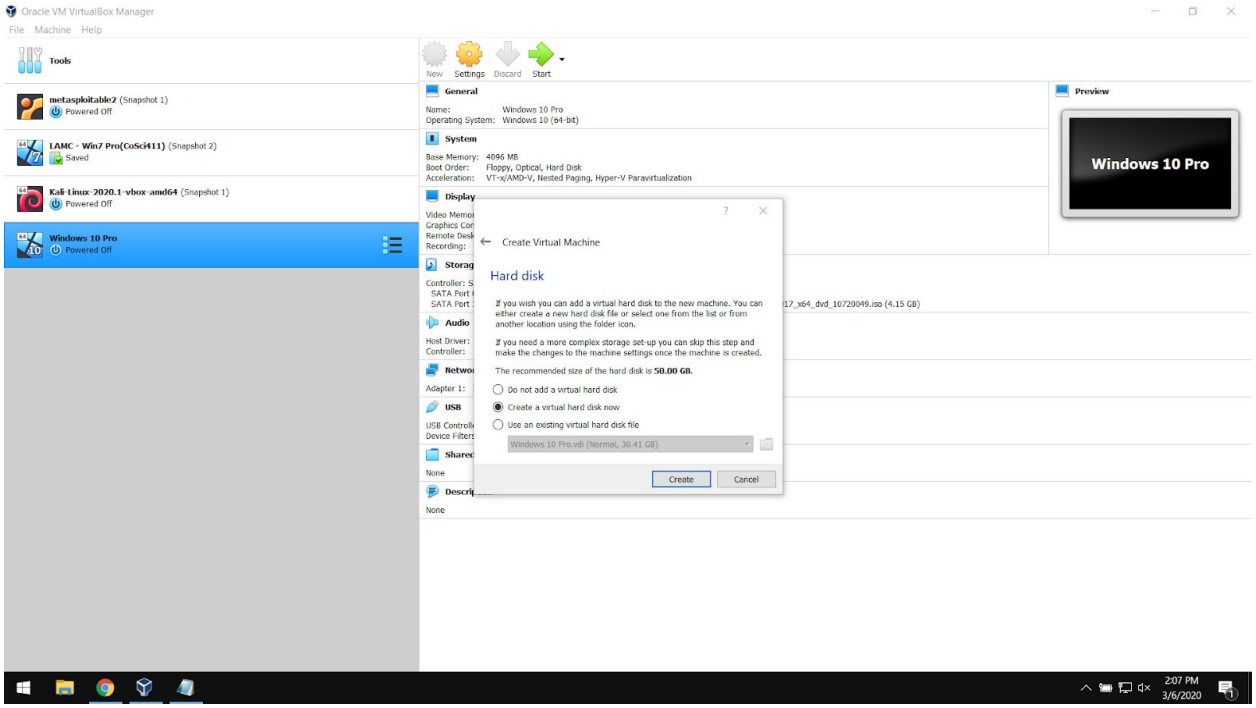
Name and operating system information

Ram size is specified for the Server. This value can be changed later in case of system instability.



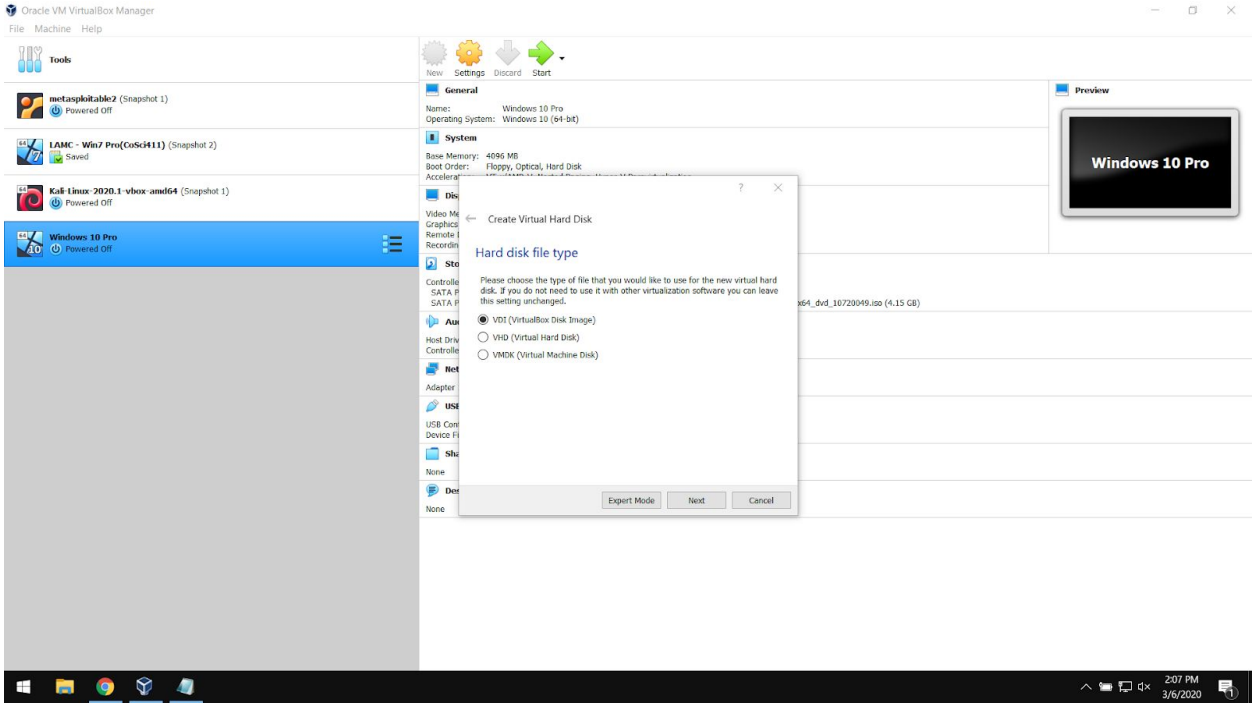
Memory Size Specified

Making a hard disk from scratch, so choosing “Create a Virtual hard disk now”.



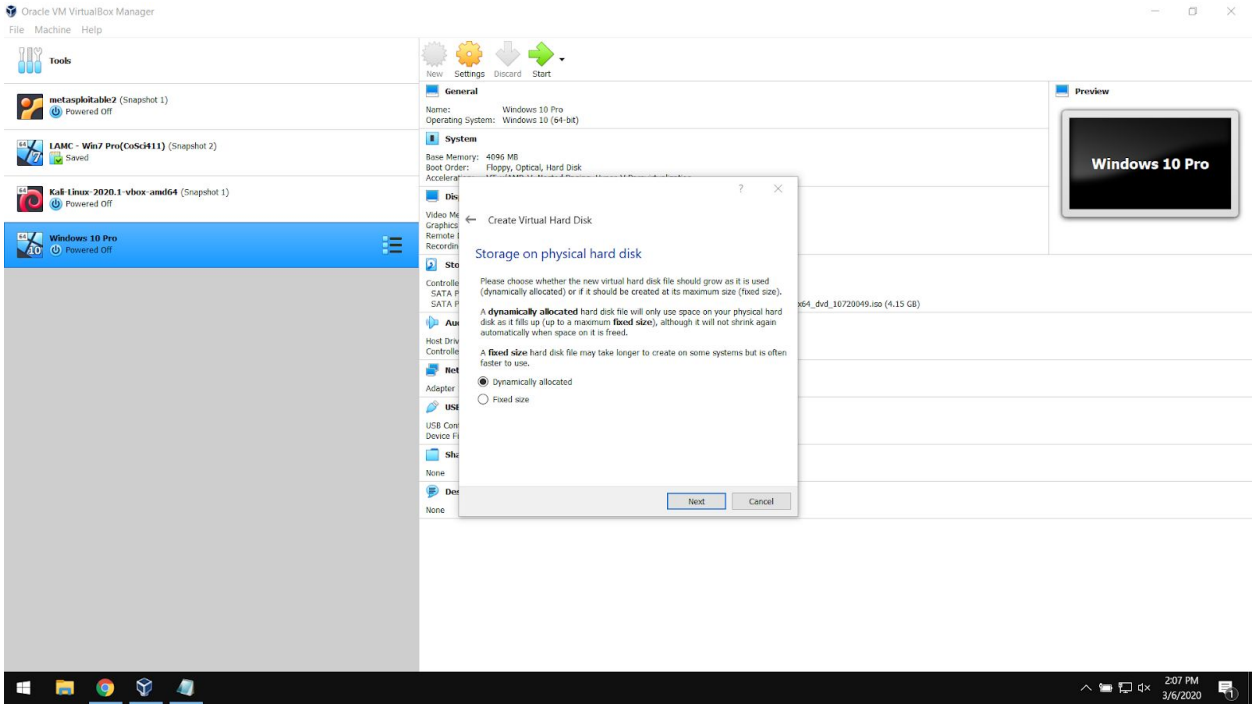
Create Hard Disk

Choosing a Hard Disk file type



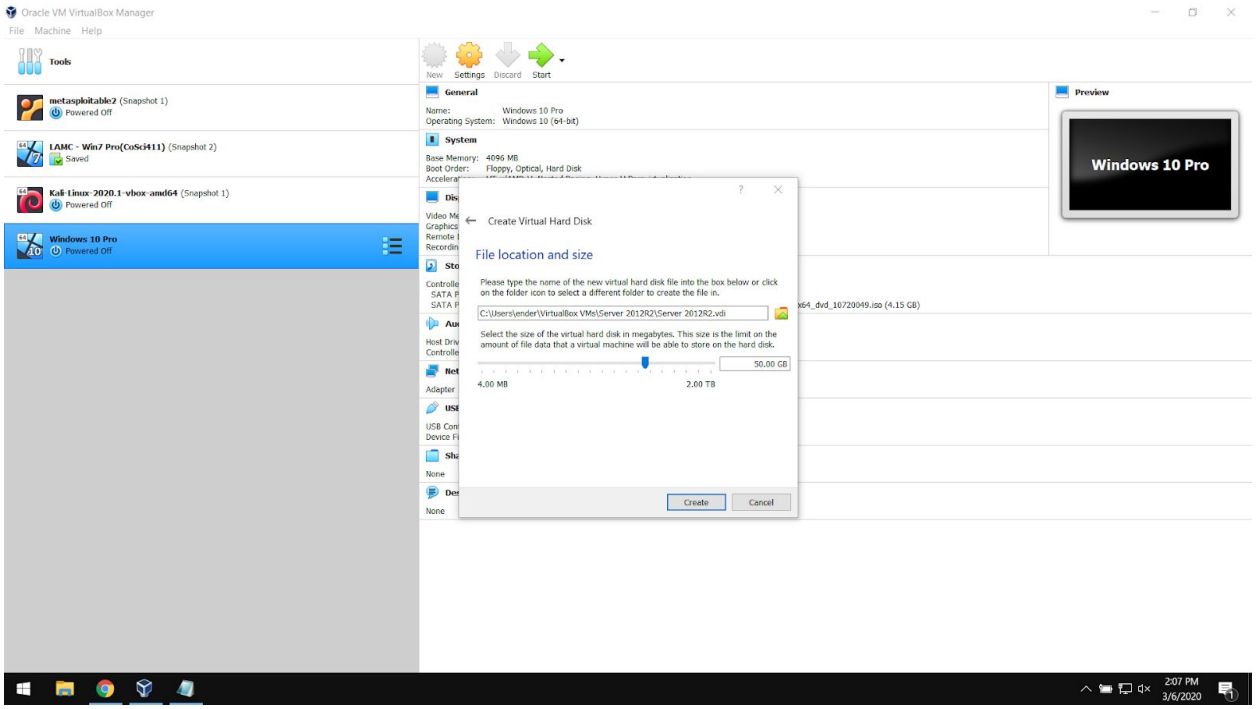
Virtual Disk Image (VDI)

“Dynamically allocated” allows storage allocation to reflect actual disk space use.



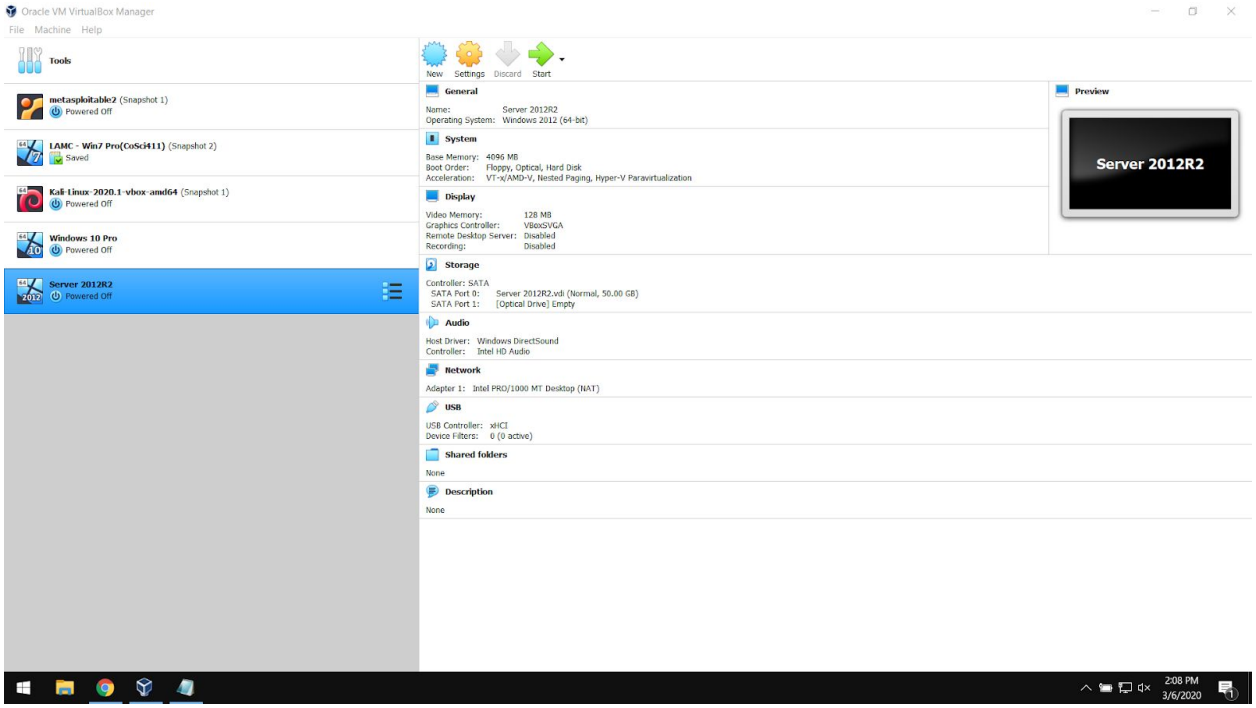
Dynamically Allocated

User defines hard disk space, here I choose 50 GiB.



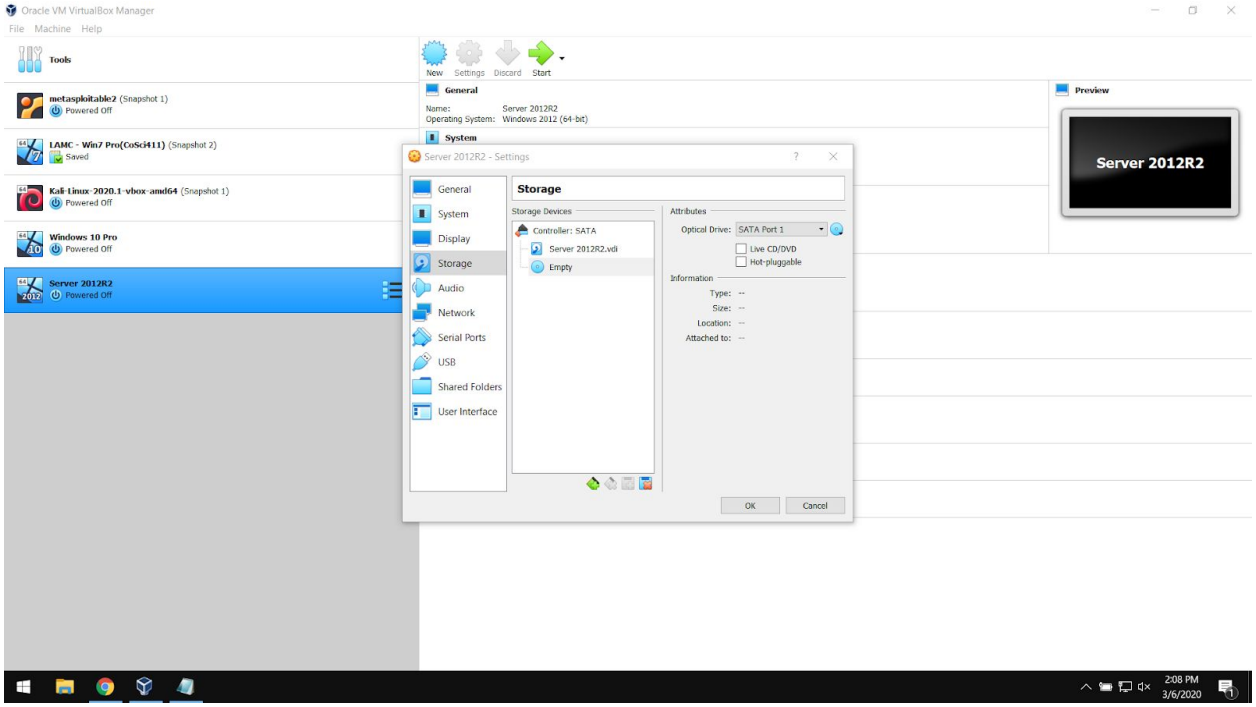
File location and size

Server 2012 is now ready to be loaded into the virtual drive.



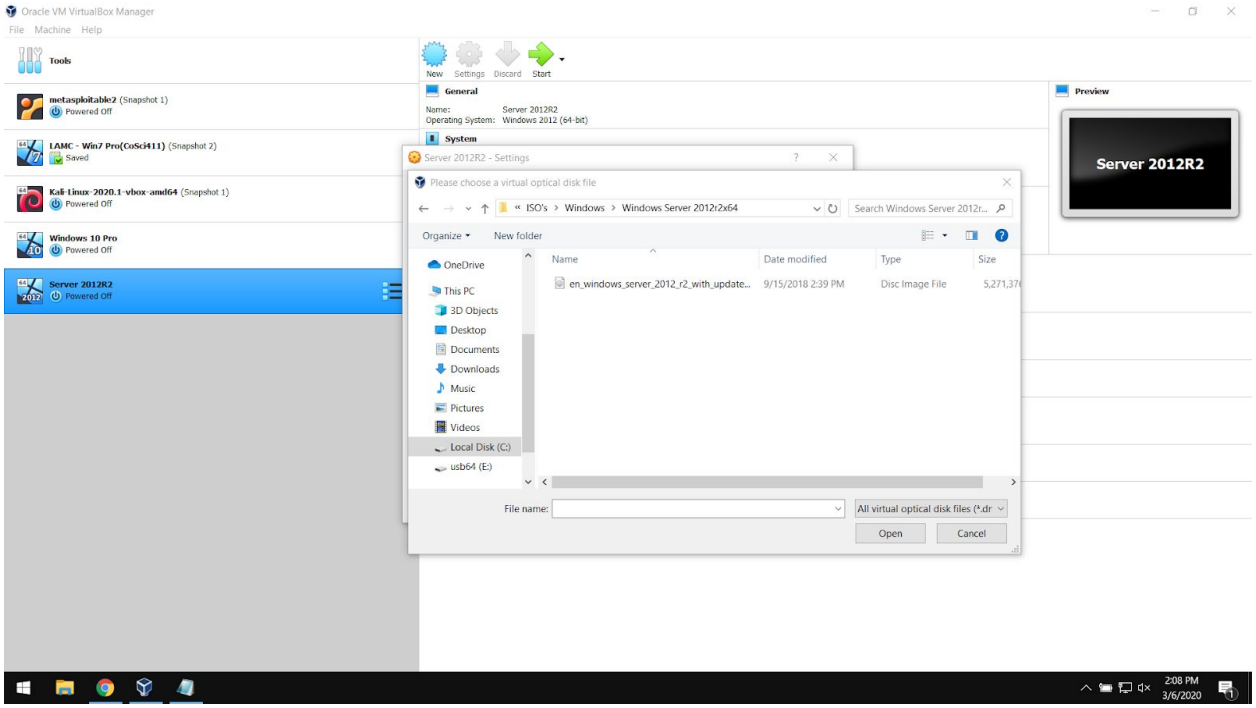
VirtualBox main menu

Selecting “empty” from Controller:SATA will provide a virtual drive to load our image.



Settings for Server 2012R2

Clicking on the folder icon to the right, I select the Server image file.



File path for Image

Note that “en_windows_server_2012...” replaced “empty” and is now loaded.

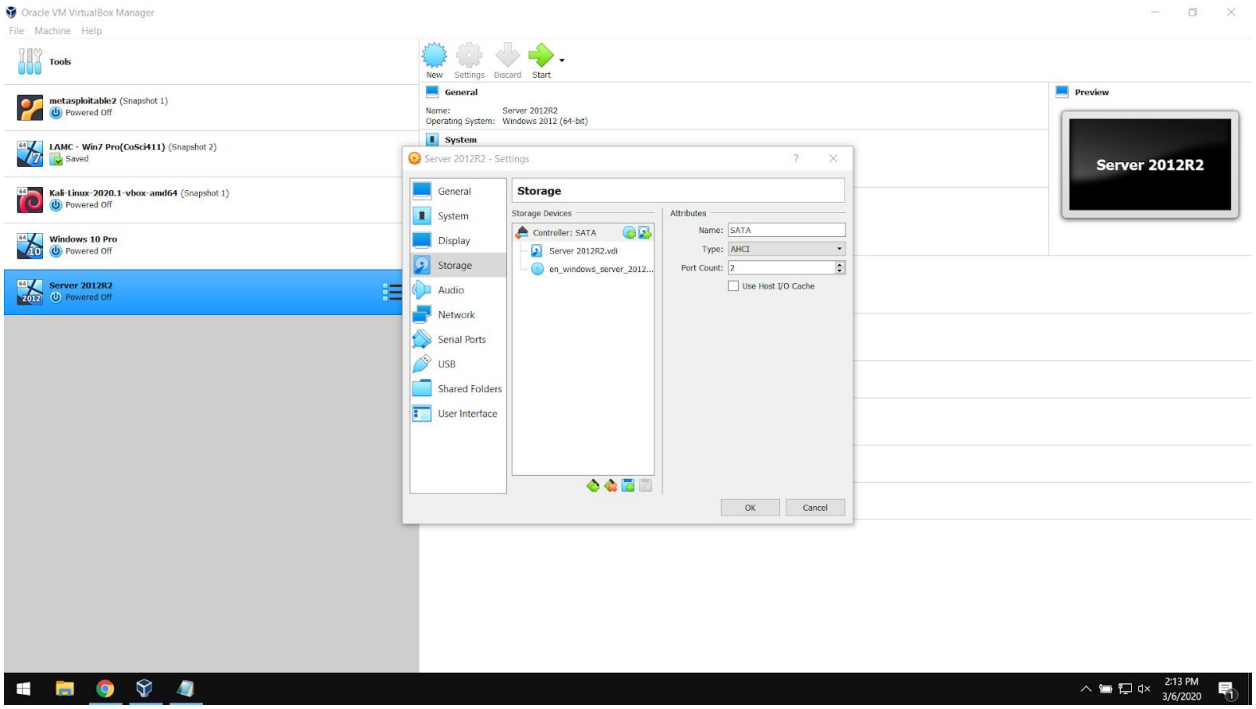
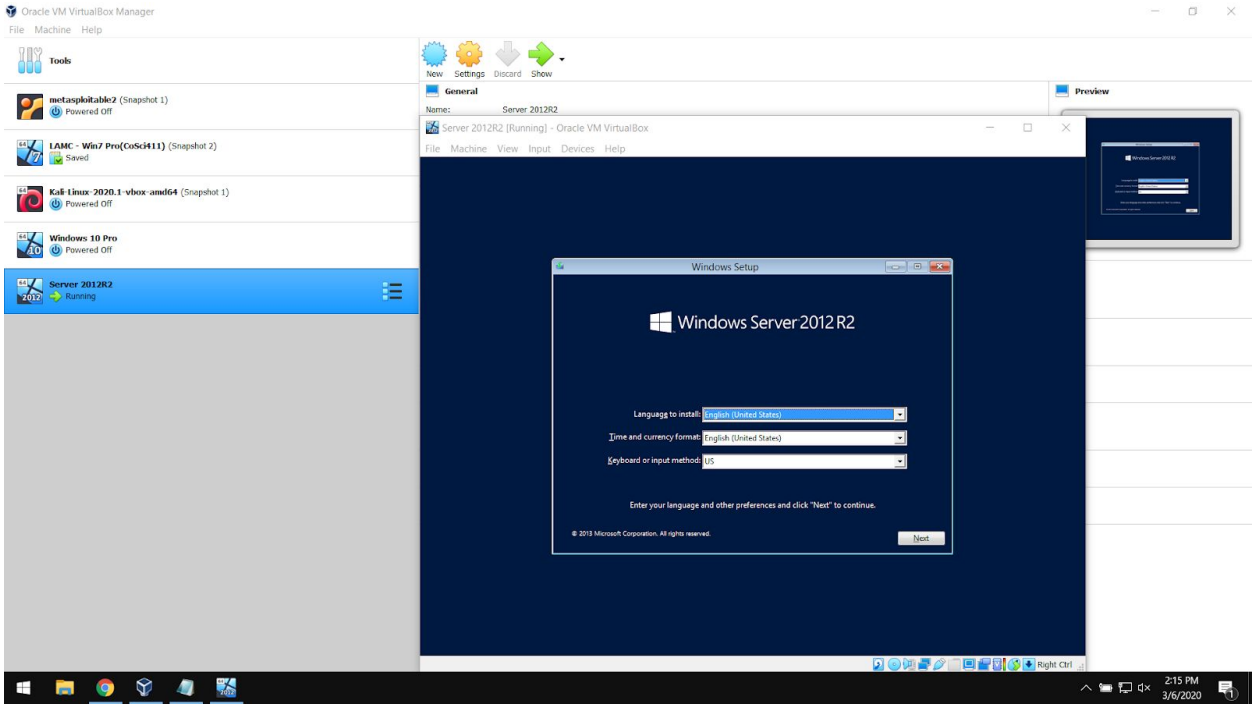


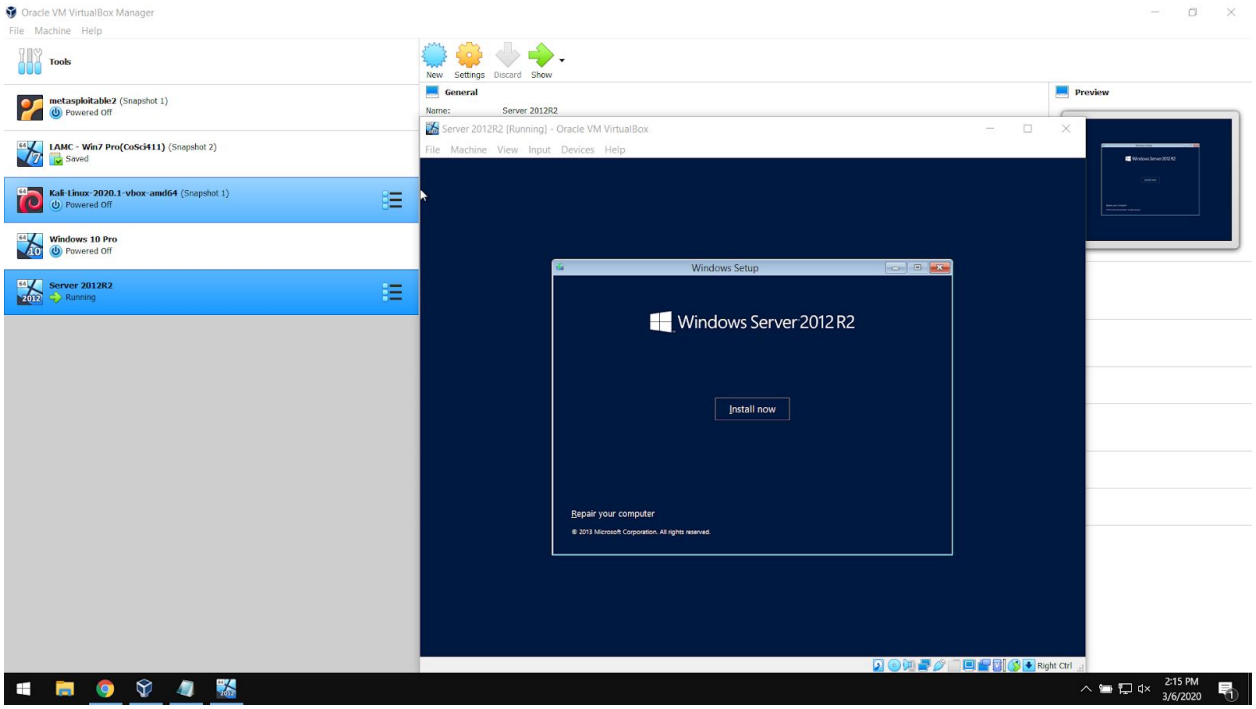
Image loaded

Booting is successful and now preliminary settings are selected.



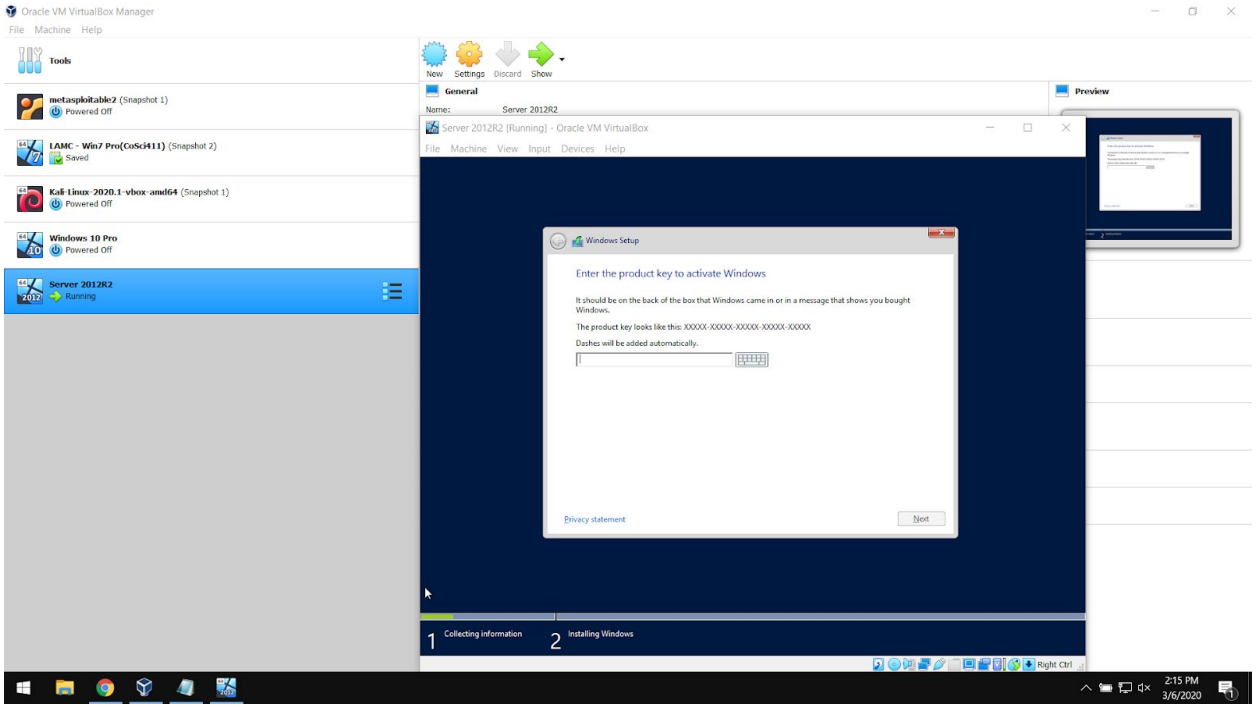
Language, time and keyboard settings

Ready for the installation of Server 2012R2



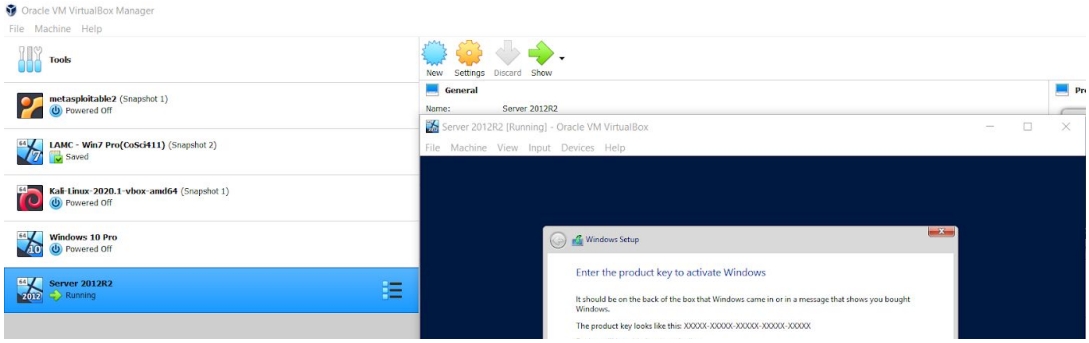
Install now prompt

A key is required to further continue.



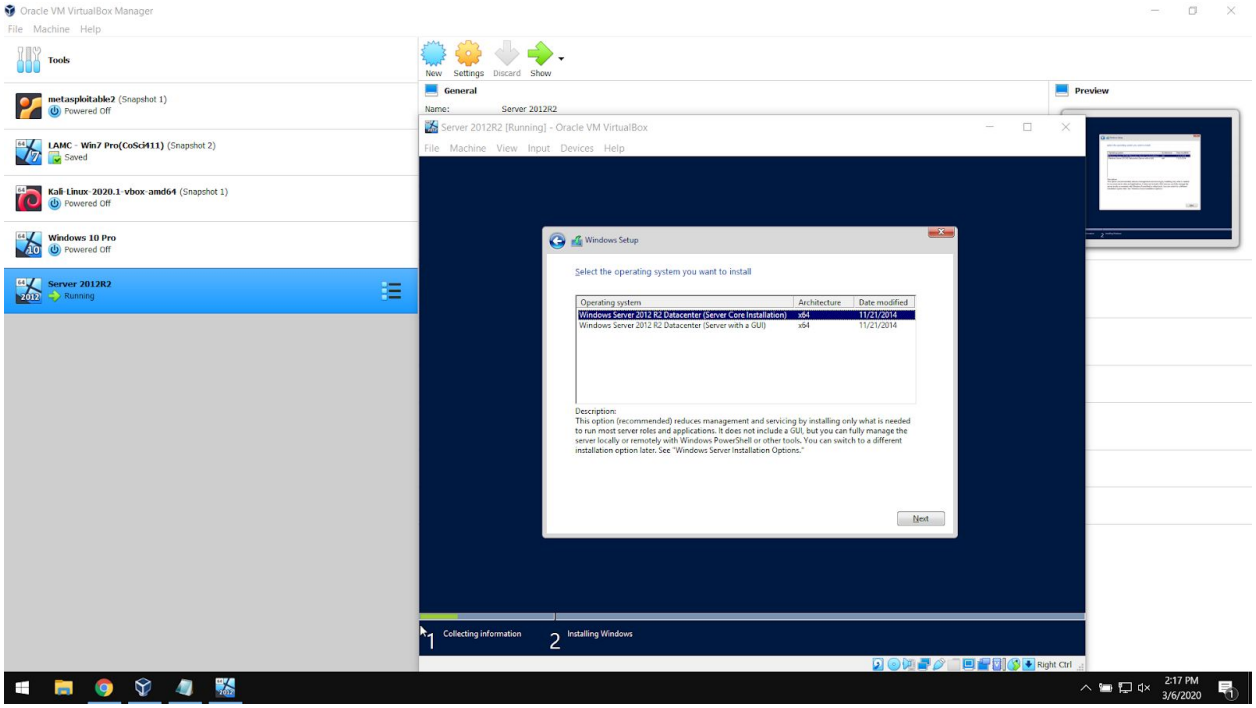
Product key to activate Server 2012

Note that case and hyphens are automatically added.



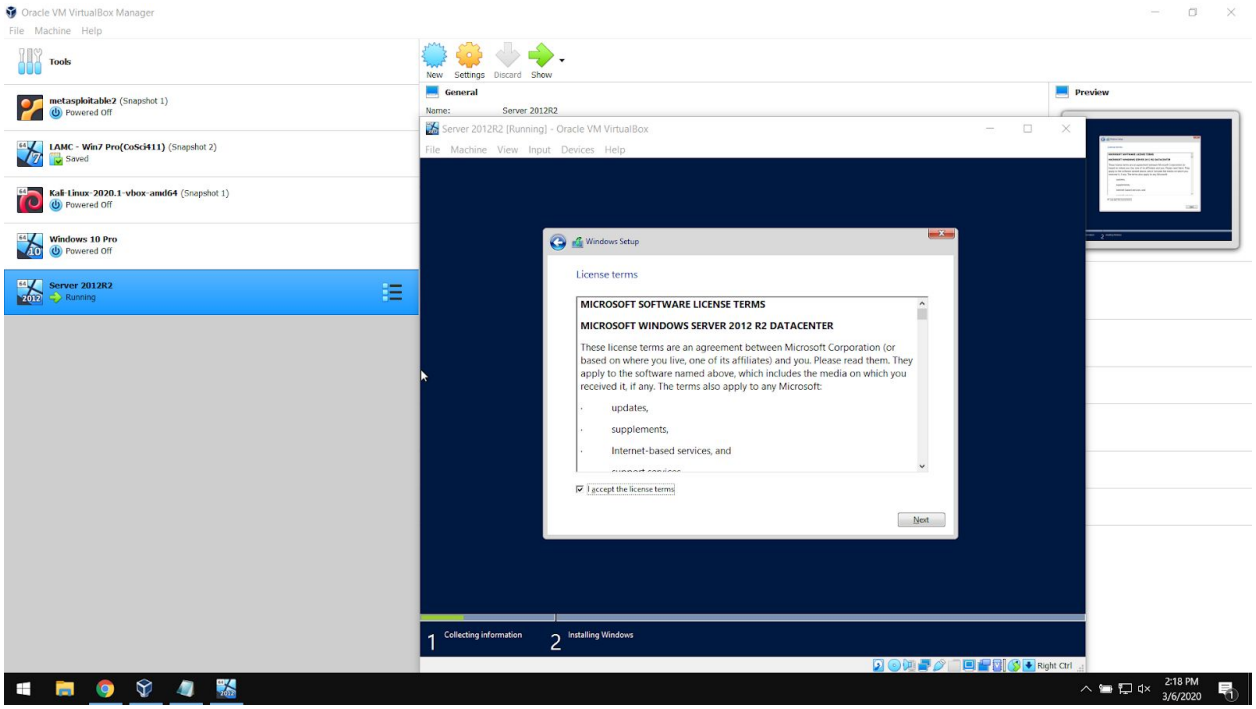
Product key

This course uses the graphic user interface (GUI) version of Server 2012R2



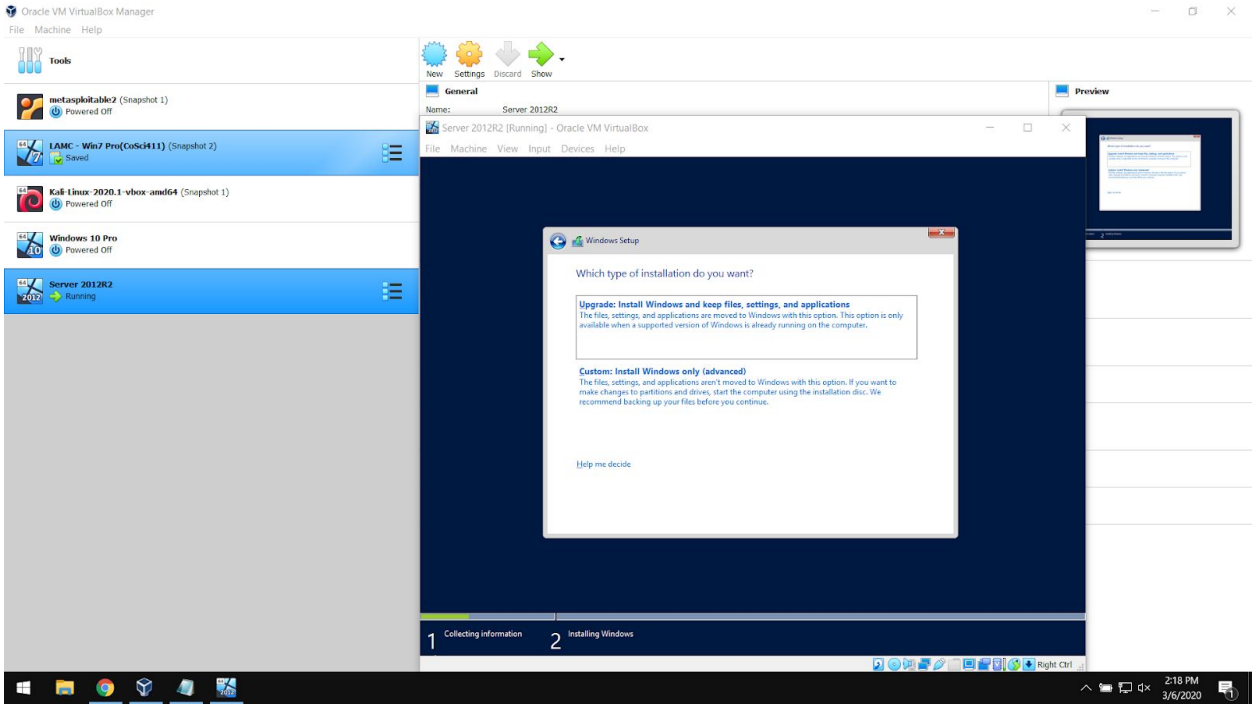
Specifying which OS to install

It's assumed this License differs from the Professional version of windows 10.



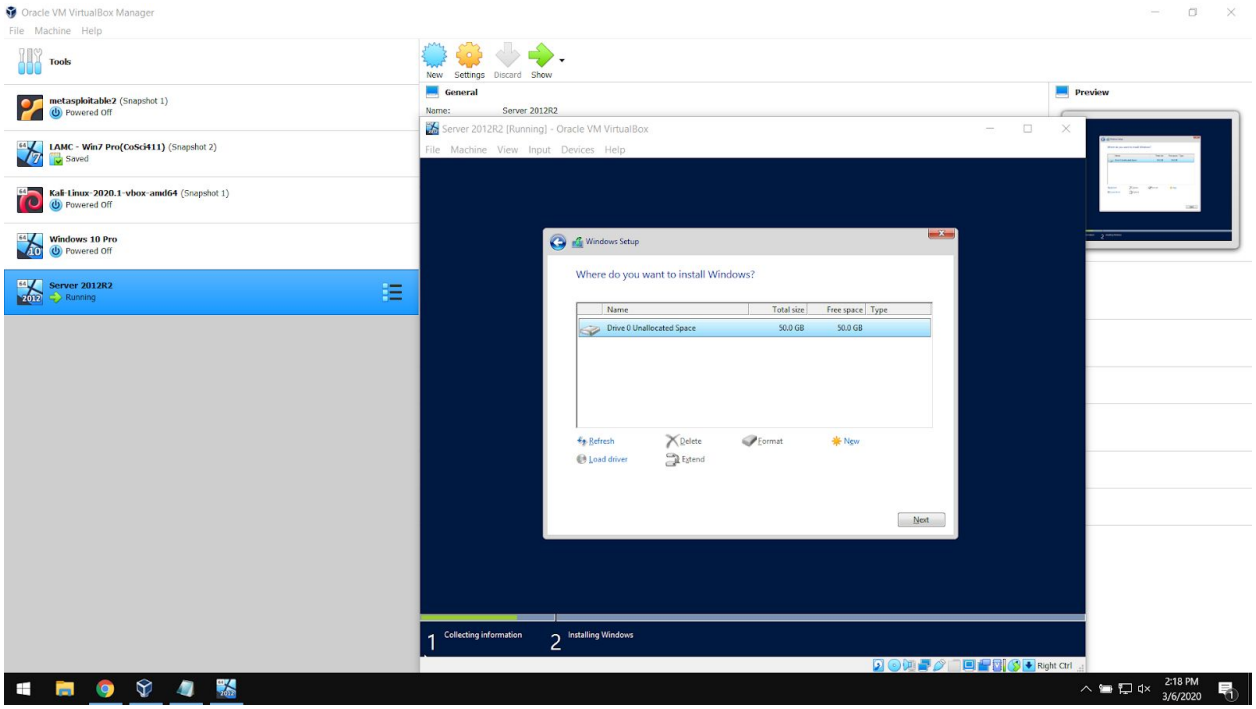
License terms

This is a fresh install and “Custom” must be selected.



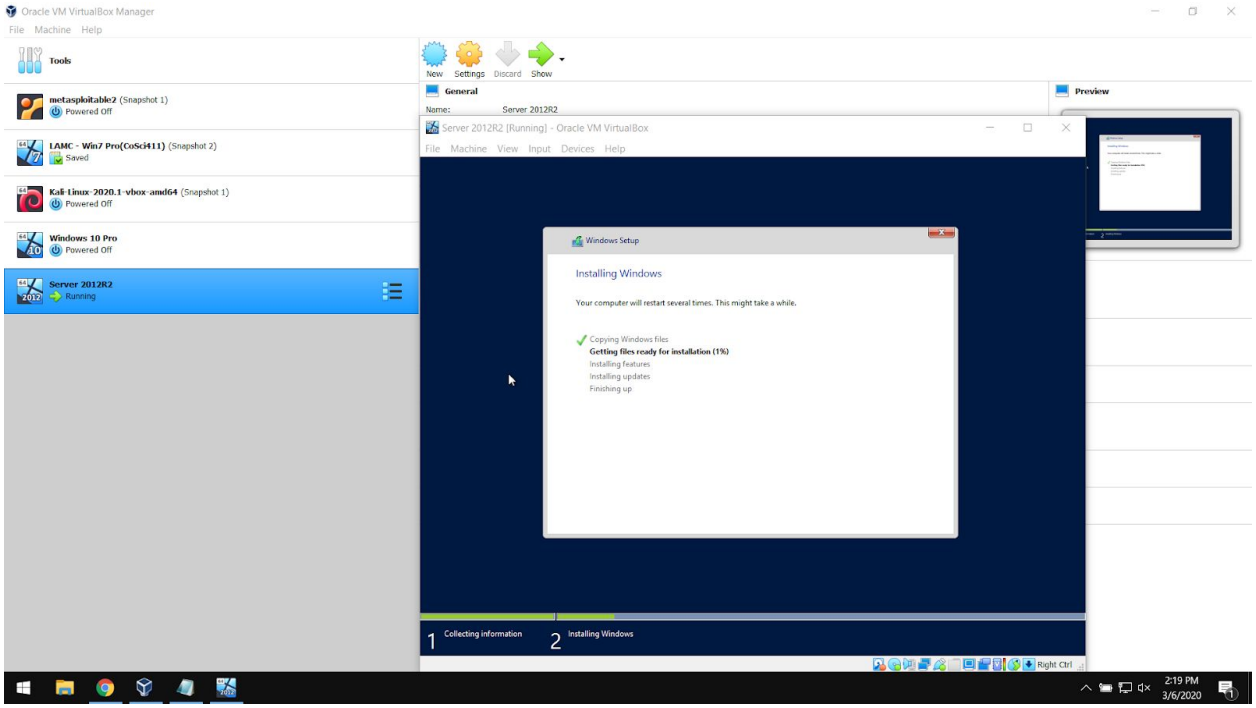
Type of installation

Drive to be used for the installation.



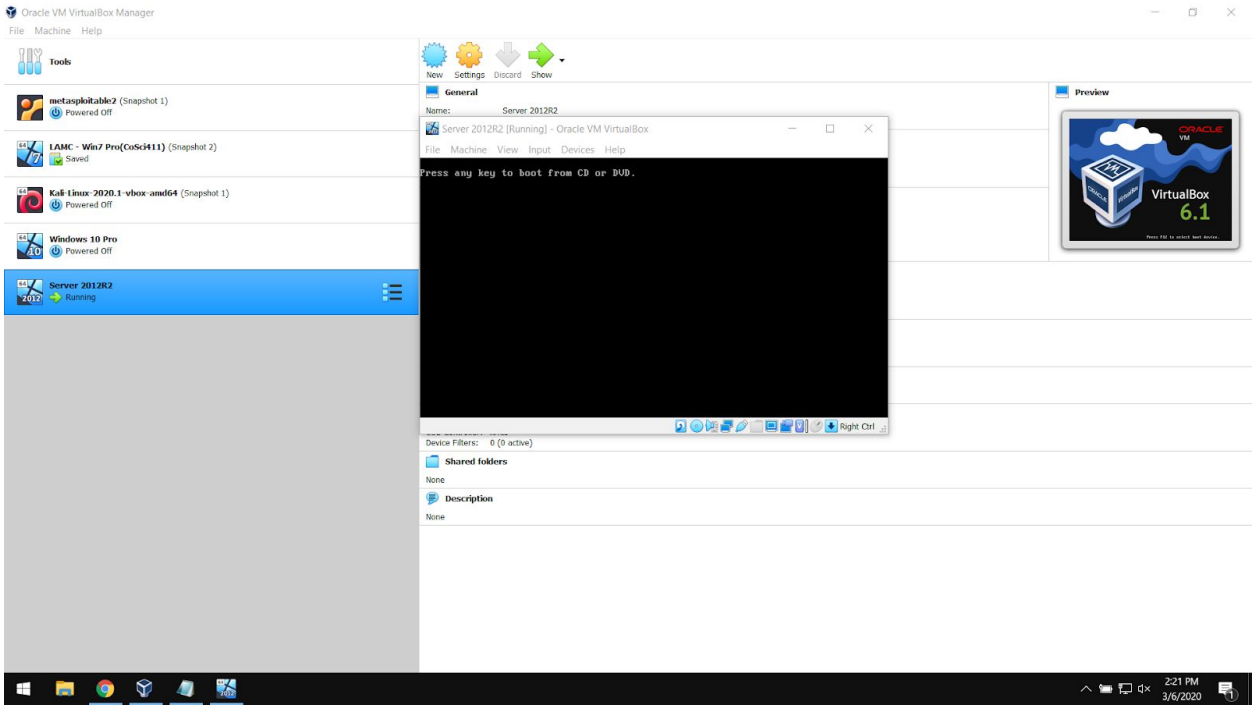
Where to install Server 2012

Prepping of the files takes under five minutes.



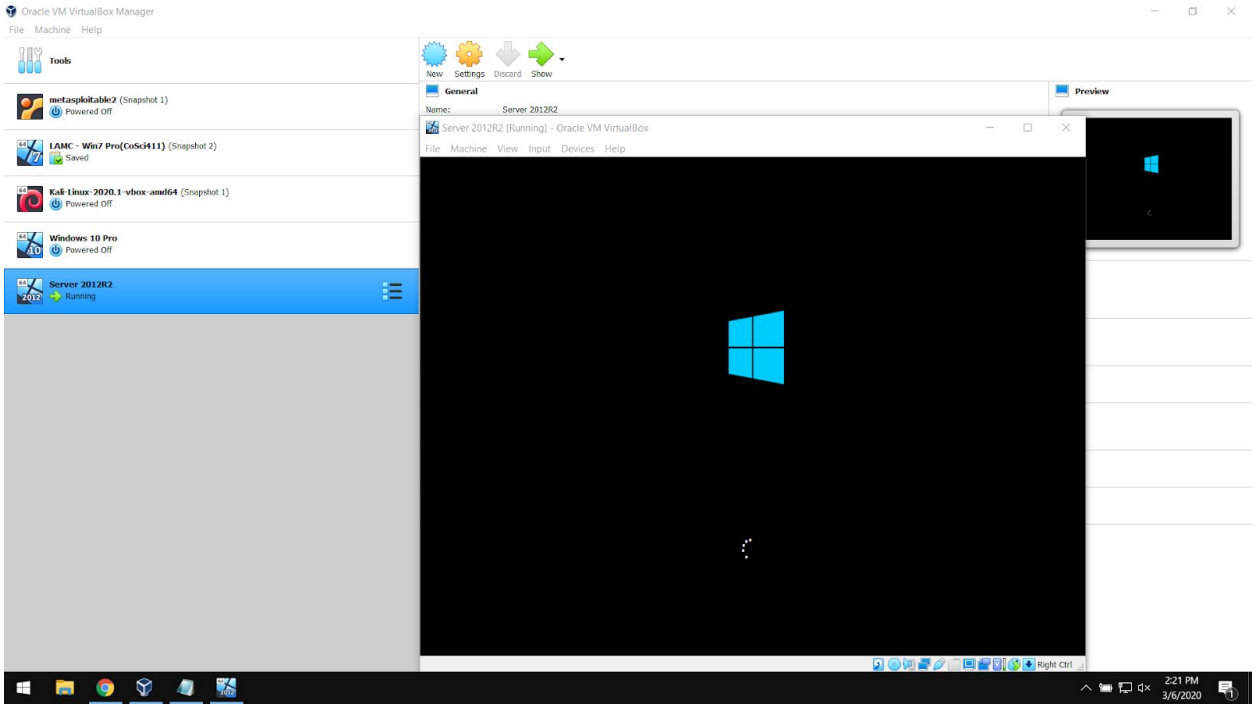
Installing windows

Restart has occurred and not pressing any key will allow the installation to proceed.



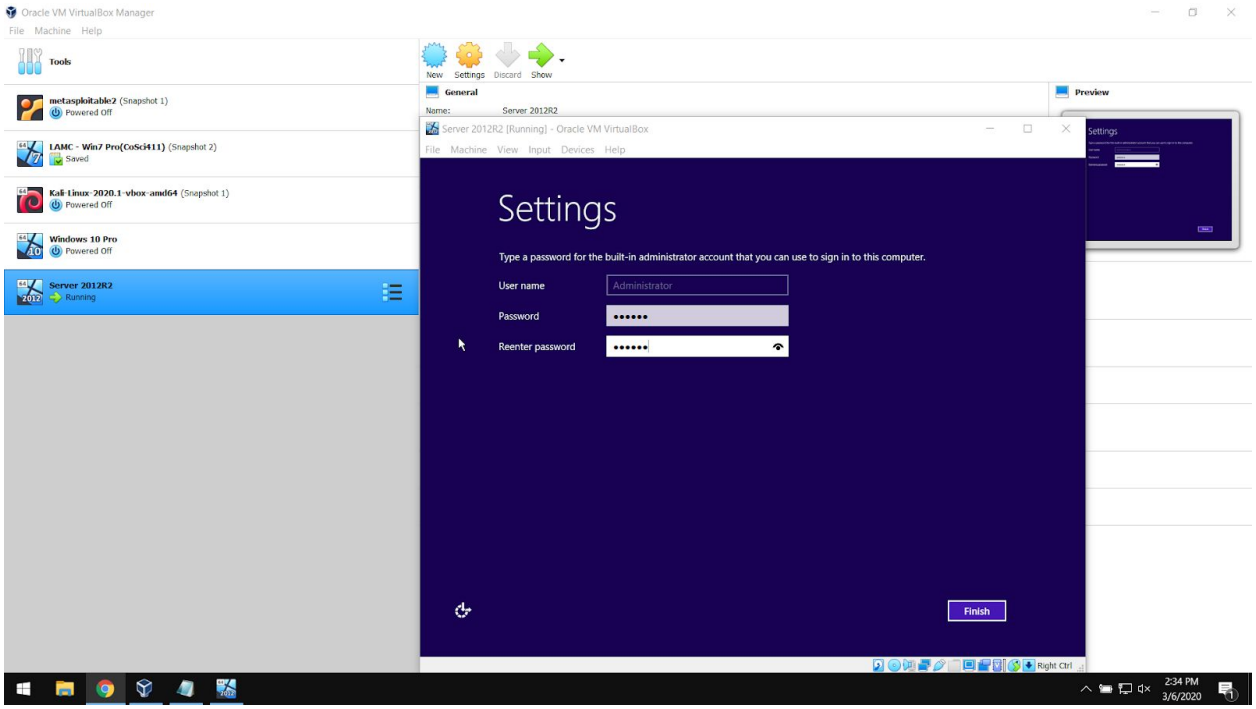
Boot

Without pressing any key the installation continues.



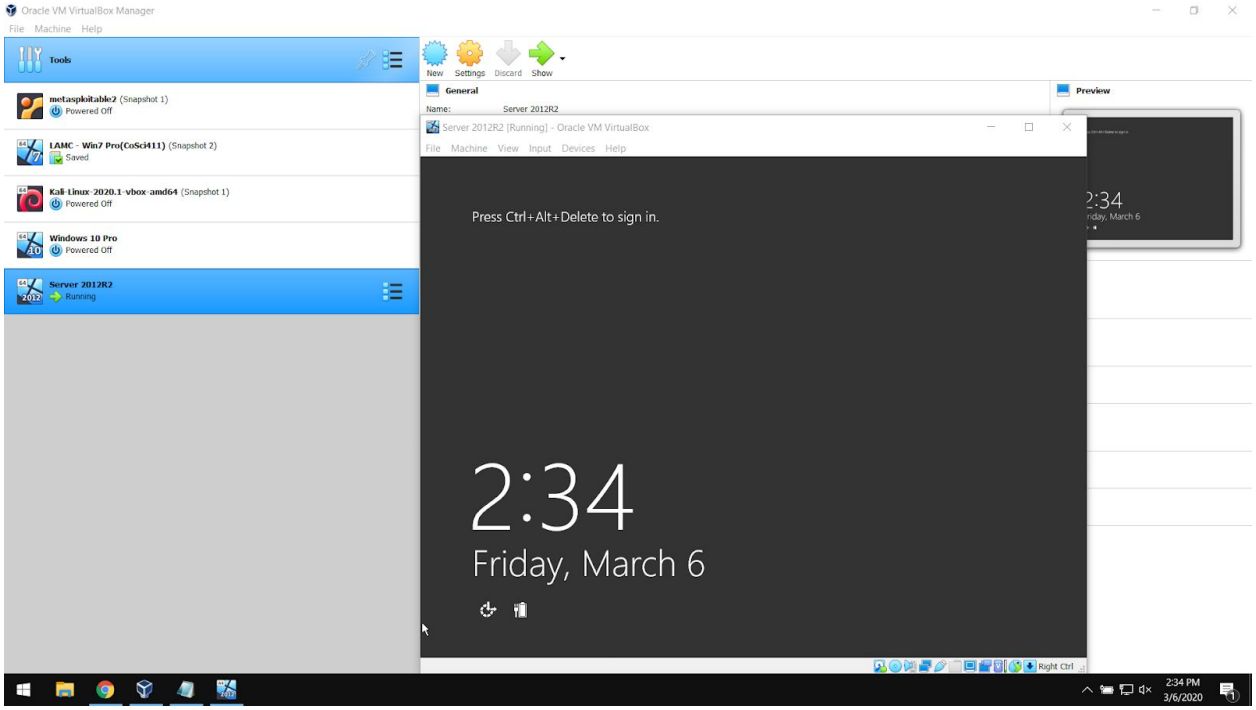
Installation continues

A password is selected and recorded in a notepad locally for future reference.



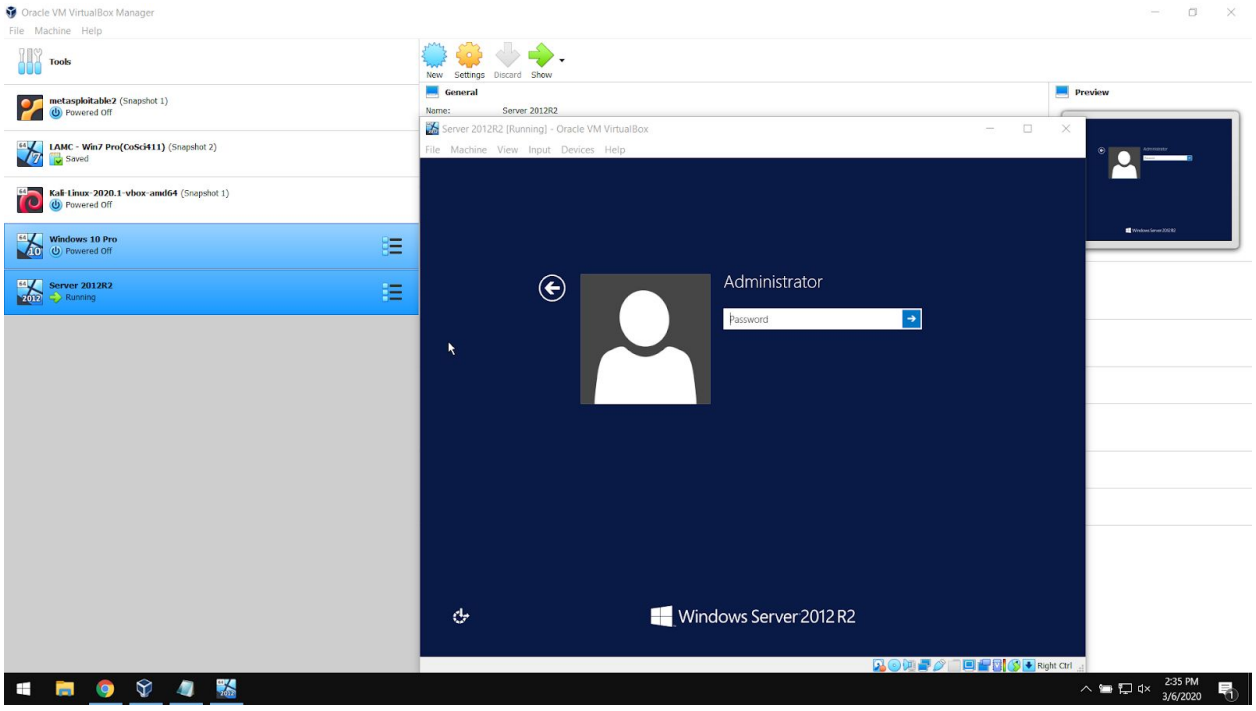
Password entry

Server 2012 is ready to be used and verified.



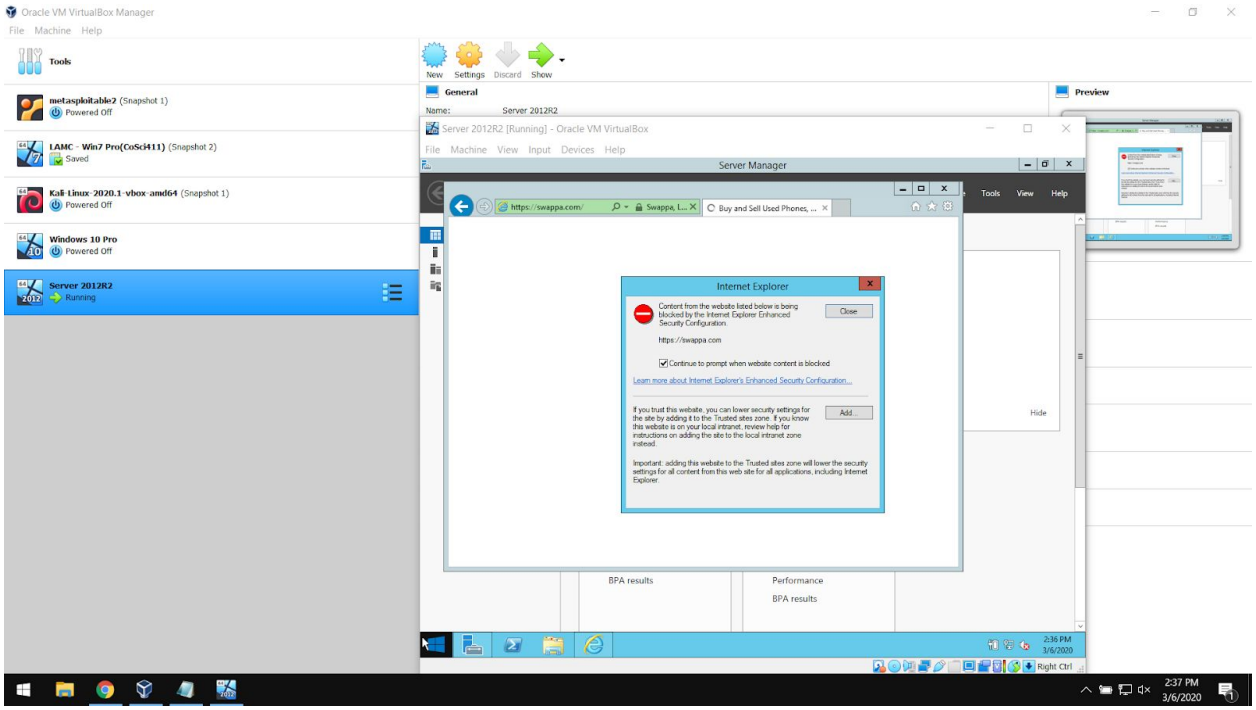
Sign in screen (ctrl alt del to sign in)

Password entry



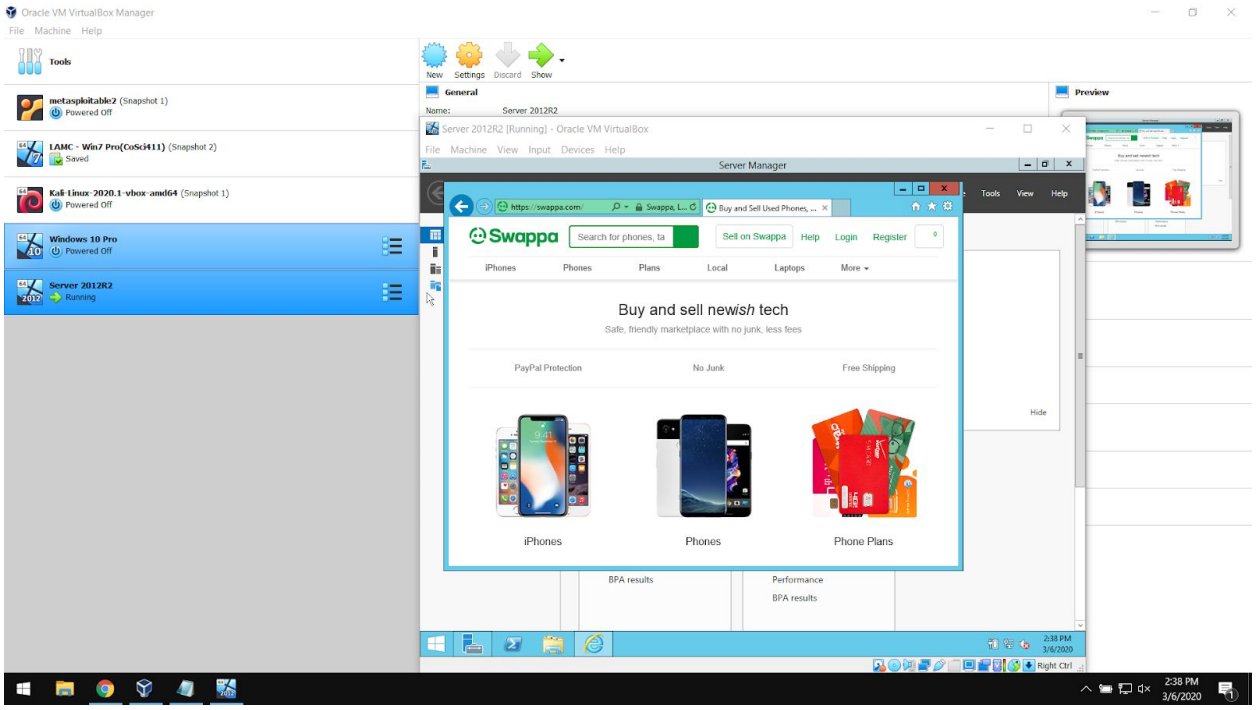
Sign in screen for Server 2012

To verify network access a web page is searched for. However this occurs. “Enhanced Security Configuration” seems to be the reason why.



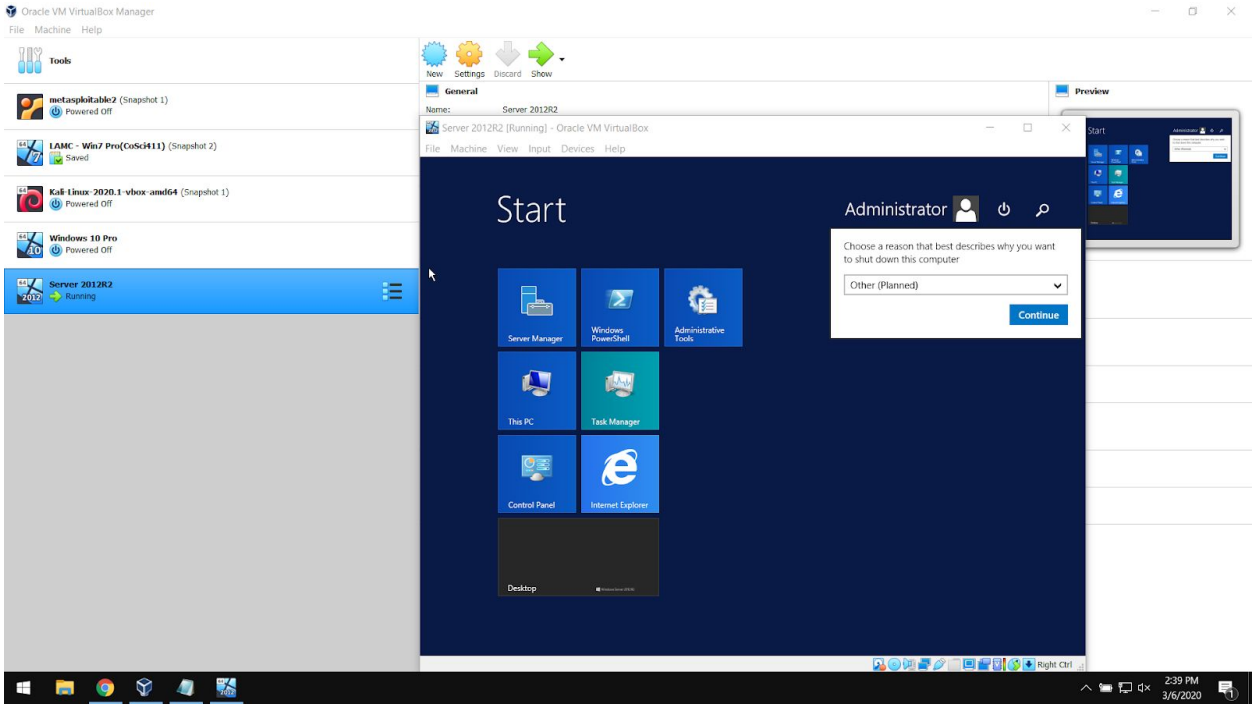
Warning in visiting web page

Turns out to not be an error and required closing the dialog box. Server 2012 is now installed and networked.



Final Screenshot

When exiting Server 2012, a reason for shutting down is required.

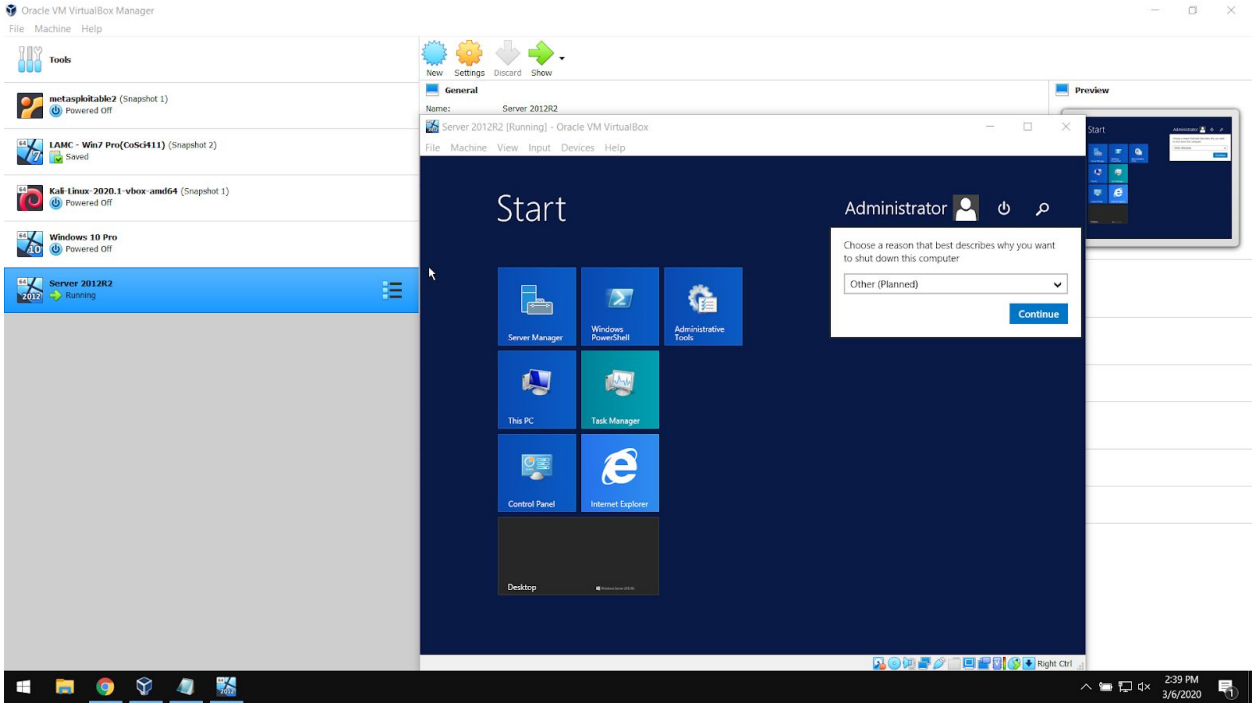


Shut down procedure for Server 2012R2

3. Surprises. Things rarely go as planned. Include this in your report. If things aren't working, documenting the problem can help you to find the solution.

> Having the username be set to “Administrator” was a surprise, usually one gets to choose this name. The Web page requiring a notice before the page is visited was also different. Choosing to add an exemption or simply closing the dialog box will allow the web page to be visited. Finally, having to provide a reason why one is shutting the computer down is striking and really shows how this is not a usual windows operating system.

4. A screenshot of the final result of the assignment. When you are installing windows and logging in for the first time, give your computer enough time to finish logging into the desktop. Show the final result.



Final screenshot

5. Summary. Did it work as expected? Did you need more research? Also use the ideas from the Malware Freakshow to illustrate how this assignment can be used in an actual hack? Are there other tools you can use? Show your thinking just as a thought experiment.

> The installation was a success and no errors occurred. There are a few noticeable differences in Server 2012 and Windows 10 Pro. Namily, the menu is dramatically cut down and frugal. There seems to be an air of “safe mode” from a standard Windows environment. Which is to show how specialized Server 2012 is. There is one known vulnerability[1] for Server 2012R2. However, there are a vast amount of exploits[2] for Server 2012. This is due to the substantial updates the Server environment has received since it’s creation. Knowing which Server environment to install would be crucial if security were any concern for the user whatsoever.

[1] https://cve.mitre.org/cgi-bin/cvekey.cgi?keyword=server+2012r2
[2] https://cve.mitre.org/cgi-bin/cvekey.cgi?keyword=server+2012