

1. Download and create the VM using the desired operating system.

- a. Using Oracle VirtualBox you can create a new Virtual Machine.
- b. Before starting the VM for the first time download the desired Operating System (.iso) and mount it on the Controller: IDE optical drive for boot.
 - i. Start the VM and setup the OS.

2. Create TPC ports for remote connections.

When remote connecting to the VM you are remote connecting to the device that the VM is running on by connecting to that device's IPv4 address; then the Inbound protocol routes your remote connection to the VM.

- a. Two remote connections made on the Virtual Box:
 - SSH - Terminal/command line
 - RDP - Full desktop GUI
 - i. **SSH** - Secure Shell
 1. Create a Port within the Virtual Box:
 - a. Guest Port 22
 - b. Host Port 2222
 - ii. **RDP** - Remote Desktop App
 1. Create a Port within the Virtual Box:
 - a. Guest Port 3389
 - b. Host Port 3390
 - b. Two Inbound TCP protocols were made on Windows Defender Firewall
 - i. RDP to VM
 1. Set the specific port as the HP: 3390
 - ii. SSH to VM
 1. Set the specific port as the HP: 2222

3. Connect to the Port:

There are SSH installations that need to be made on the Ubuntu system before attempting to connect; however, assuming that has been made, we can attempt the connection on the remote machine.

- a. SSH - Use Windows terminal
 - i. `ssh ubuntu@192.168.1.X -p 2222`
- b. RDP - Use Remote Desktop Application
 - i. `192.168.1.X:3390`

4. Transferring data

- a. Within VirtualBox, create a *Shared Folder* that is housed on the native machine on which the VM is run. This folder is housed on the native machine the VM runs on. When the VM is connected to this folder will be accessible.