Lab Preparation Manual for IN515 Introduction to Networks

1) Copying Virtual Machines to the Local PC

We will mostly be working with virtual machines in this lab. This way we can bypass any limitations that the original OS of the lab machines may have, but also to avoid messing up the configuration.

To do this, we create an individual copy of a preconfigured virtual machine on our individual PCs.

Navigate to

i:\COURSES\EAD\AITEIT3\Cisco\CCNA1\Week 02

and double-click on the batch file

CopyVmImage.bat

This file will copy a preconfigured image and places it on your D: drive. **The image location is printed by the batch file once it is done with copying.** Note that this can take a few minutes. The images are copied 'per machine'. That means if you want to reuse the virtual machine in another session, you will need to log onto exactly the same machine.

If it asks you whether to replace existing files, it means that someone already copied an image there previously. You can click 'A' to continue overwriting it. However, all original settings are lost. Choose 'n' if you want to keep the original copy. If you are unsure, check with your instructor.

You can now move to Step 2) in order to run the image.

2) Running an Image in VMWare Workstation

- Open 'VMware Workstation' from the Windows start menu

- Choose 'File' -> 'Open ...' and navigate to the VMWare image (given by the batch file in Step 1).

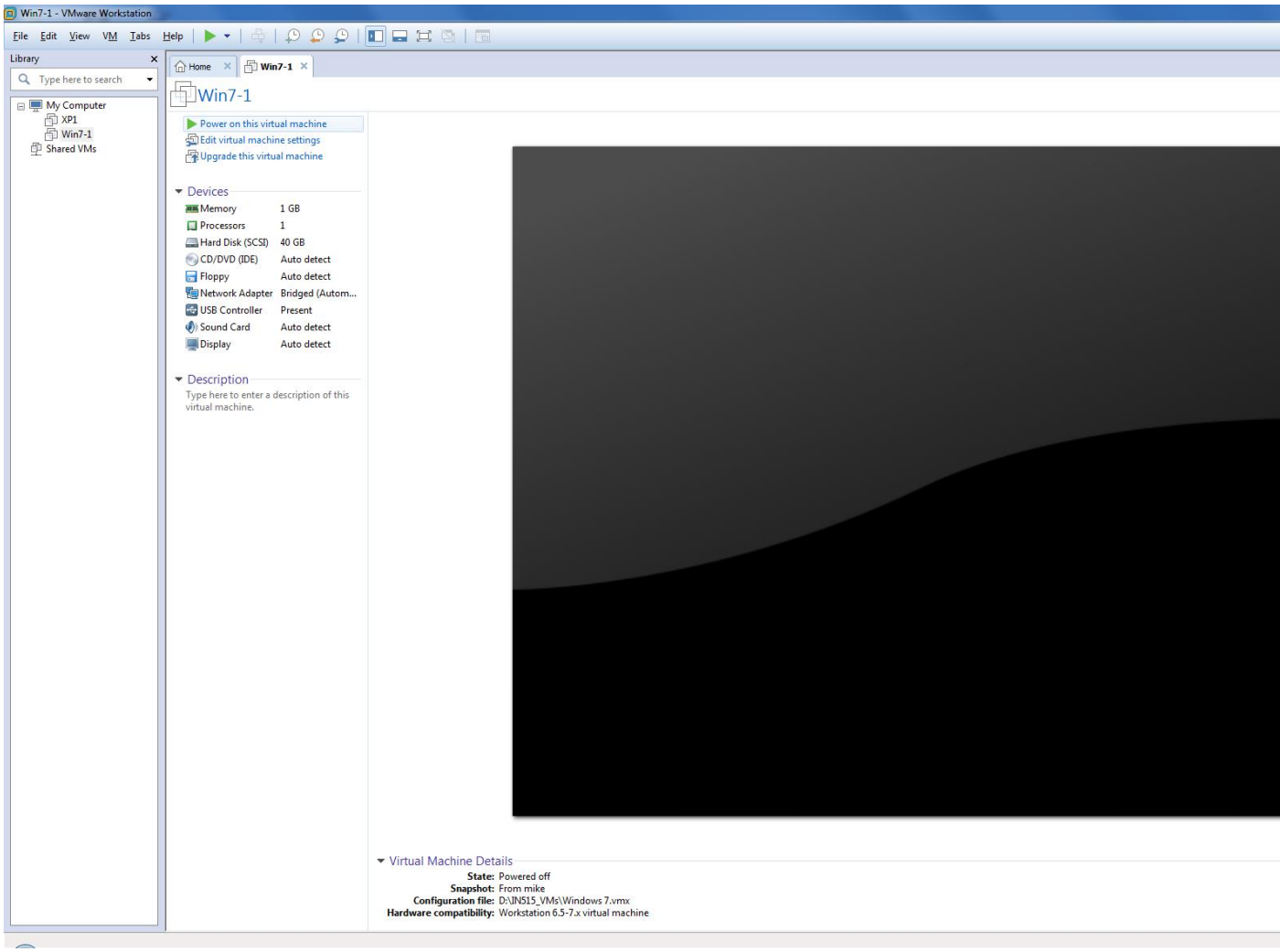
- Once the chosen image is imported (It appears in the menu on the left and should be selected). In the example screenshot below it is ‘Win7-1’, but yours could be different.

- Click on 'Power on this virtual machine.'

- If the VMWare asks you where you moved or copied it, choose 'I copied it'.

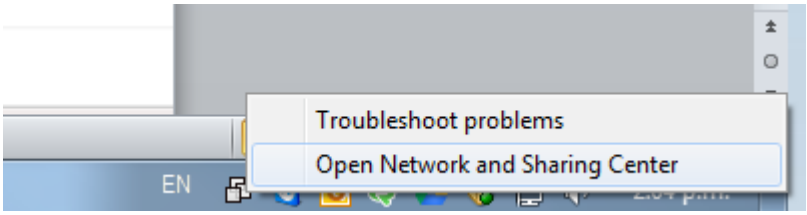
- If another message appears, click 'OK'.

- The VM should now start.

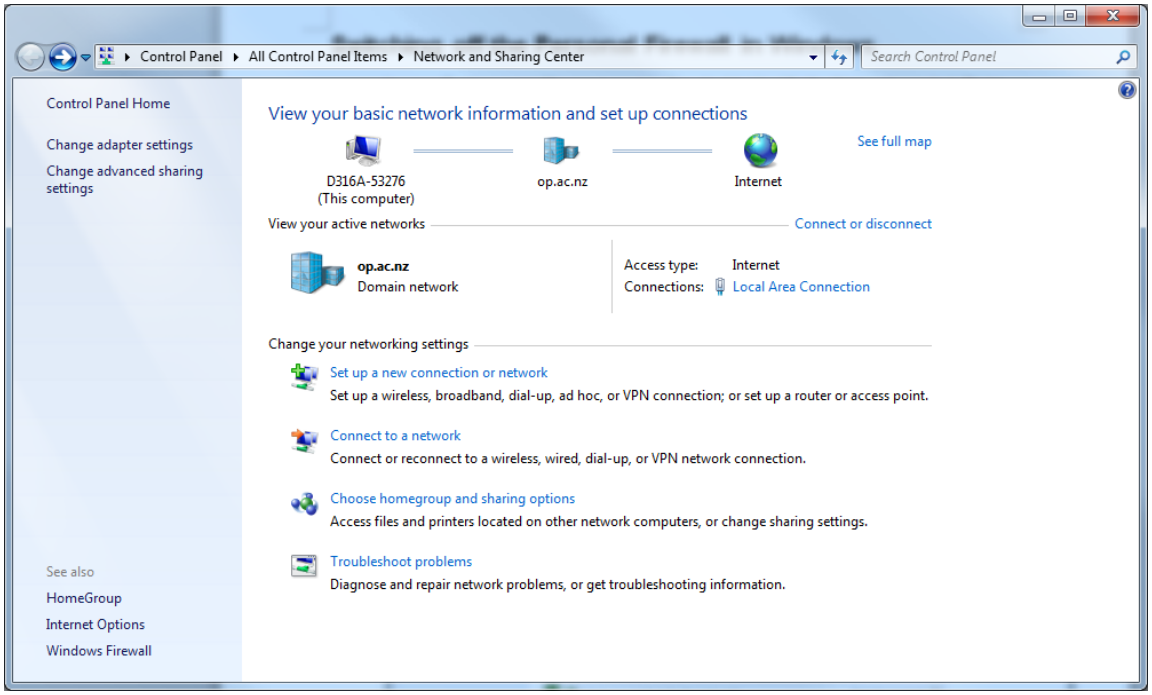


3) Deactivating the Windows Personal Firewall on your Virtual Machines

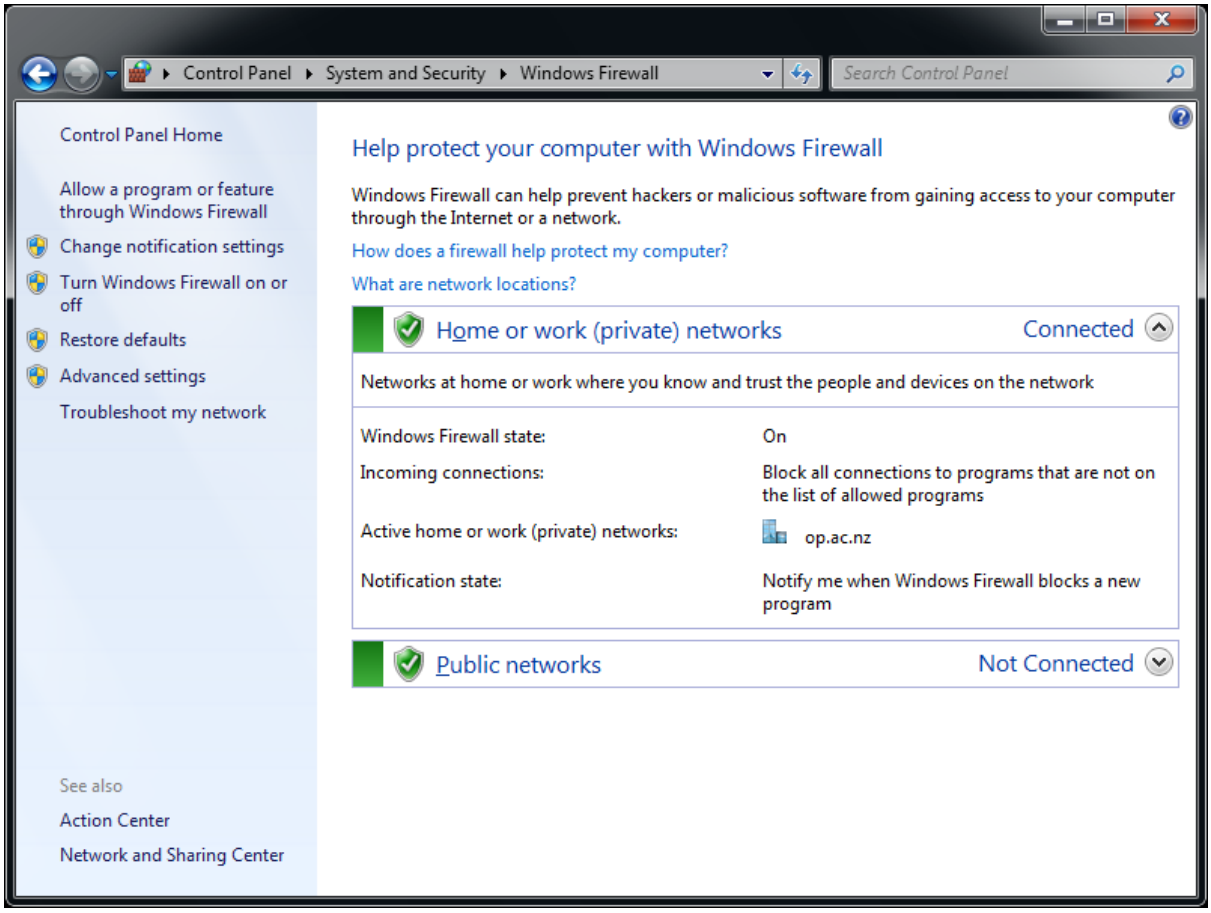
- Start your Virtual Machine.
- In your Systray area (the area next to the clock), identify the *Network symbol*  . Right-click on it and select '*Open Network and Sharing Center*'.



- In the upcoming window, click '*Windows Firewall*' on the lower left.



- Click on '*Turn Windows Firewall on or off*'

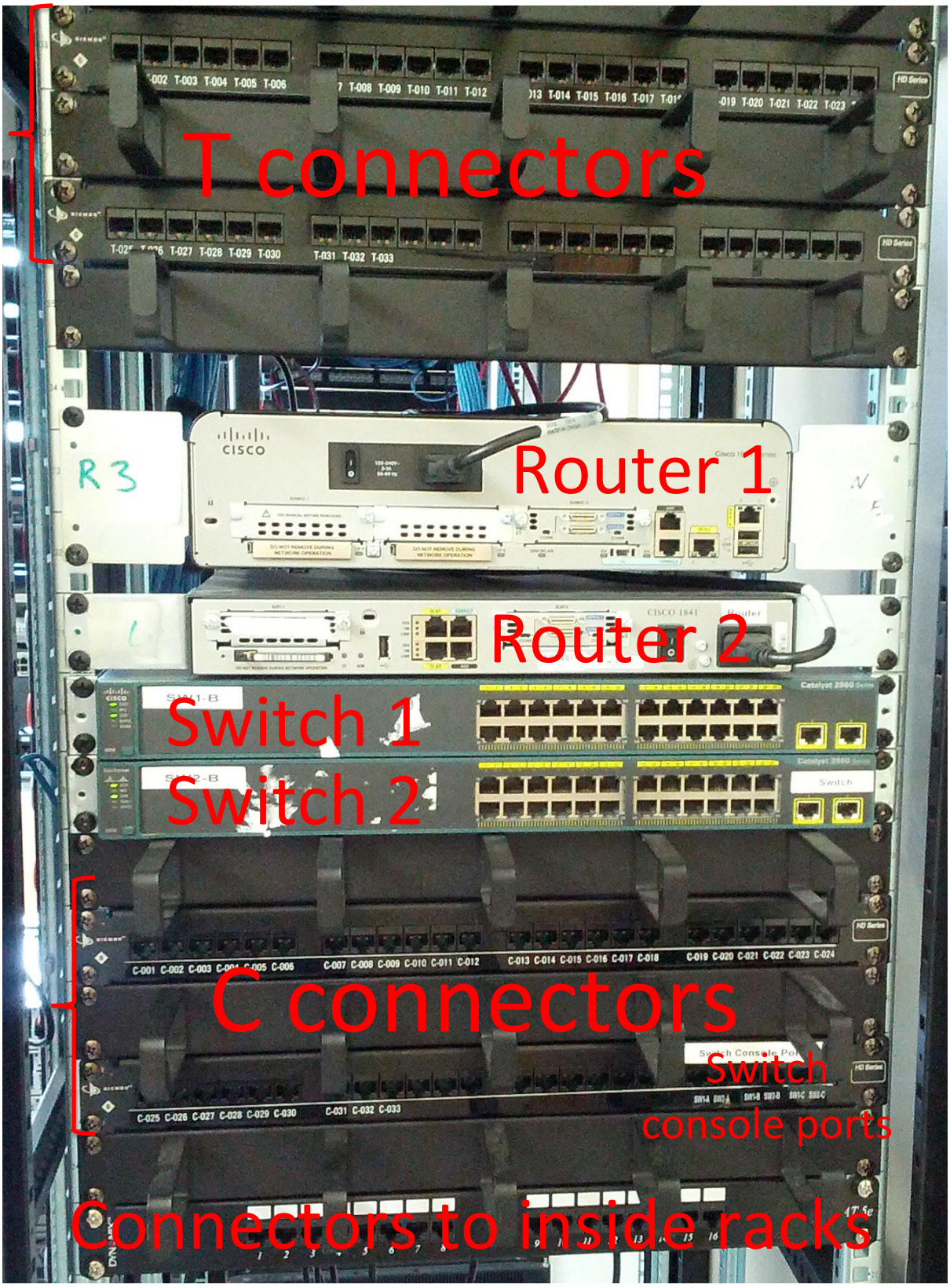


- For all types of network connections (*Home or work (private) networks)* and *public networks*), choose '*Turn off Windows Firewall (not recommended)*'.
- Windows will the notify you and encourages to switch it back on. Ignore that in this case.

- **Notice:** As you read, it is not recommended to turn off the firewall generally, and you wouldn't want to do that unless you have a good reason. However, in your role as administrator you may sometimes be required to do that for tasks such as testing network connectivity.

4) Networking Setup Room D313

- Currently we have six racks with two routers and switches each. See the image for the typical rack layout. The individual connectors (T + C) map to your machines.



- Your individual PCs are all connected to the outer patch panels on the outer racks. Check your PC's network wall connectors for their ID. Each PC has three network plugs, named *C-xx, T-xx, and L-xx*, with numbers such as C-01, T-01, and L-01. The L connector is the 'live' network connector you use to access the OP network, the internet, etc. The T connector is used for the Cisco networking labs and requires you to patch it in the server room. In order to do the networking labs, you will need to unplug your PC from the L connector and plug it into the T connector. The C connector is for console connections. If the lab instructions ask you to access and IOS device console, you will need to patch it accordingly in the server room. You will never need to unplug the C connector from the PC.
- Summary:
    - **C** connector: Console access for IOS devices
    - **T** connector: Training environment for networking labs
    - **L** connector: Live OP network and internet connection
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- Depending on the IDs you will be working on different racks in the server room, either on the racks closest to the door (*Door side*), or closest to the window (*Window side*).
- If your ID is in the range from (using the C connector as example)
    - **C34 – C46**: your connector is on the **Door side**,
    - **C47 – C58**: your connector is on the **Window side**.
- You can now use network cables to patch your C port against the console port of an IOS device, and T port to connect to an Ethernet port of an IOS device as instructed by the lab manuals.
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- **Important: After each class, ensure you patch your PC from the T connector back to your L connector. Else the next class cannot log on.**

5) Terminal Client ‘putty’

In the labs we use putty (see screenshot) instead of TeraTerm (which the Cisco lab documents refer to). You can start it by typing ‘putty’ in the search field of the Windows start menu.

To connect to the switch or router *console*,

1. Ensure your PC’s Cisco roll-over cable is connected to the C port on the network panel (and patched through to the switch)
2. Start putty from your host machine. (If you want to use it from the virtual machine, you will need to map the serial port in VMWare.) Choose the following settings:
    a. Connection type: Serial
    b. Serial line: COM1 (should be selected automatically)
    c. Speed: 9600
3. Click on ‘Open’ to connect to the IOS device.