

FILE SHARING OVER A LOCAL AREA NETWORK IN "WINDOWS.."

HIGH-LEVEL EXECUTIVE SUMMARY

Each version of "Windows.." has slightly-different file sharing capabilities.

For "Windows 7" and (future) "Windows 8", the use of "homegroups" makes file sharing easy but there is a 15 percent performance reduction.

For file sharing between "Windows 7" and earlier versions of "Windows..", you have to use "classic file sharing".

If you share between "Windows 7" and a computer running an earlier versions of Windows, you might end up sharing too many files from the computer running earlier version of "Windows..".

If you cannot get file sharing started between two "Windows.." computers or between a "Windows.." computer and a Linux computer, you can use the IP address of the target computer to "jump start" file sharing.

BASIC INFORMATION ABOUT FILE SHARING

WINDOWS XP HOME

Simple File Sharing

(no "Advanced Sharing" is allowed: cannot designate which username to share with.)

Defaults to workgroup of "MSHOME" which prevents file sharing with all higher versions of "Windows..". (All higher versions of "Windows.." such as "Windows Vista", "Windows 7", "Windows 8", "Windows 8.1", and "Windows 10" default to a workgroup of "WORKGROUP".)

If you wish to share files with a higher version of "Windows..", you must switch the workgroup of a "Windows XP.." computer from "MSHOME" to "WORKGROUP".

WINDOWS XP PROFESSIONAL (AND HIGHER)

Simple File Sharing

See the "Windows XP" section at

<http://www.my-quickbooks-expert.com/file-sharing.html>

Advanced Sharing

Can set the username of who you share a shared folder with.

Defaults to workgroup of "MSHOME" which prevents file sharing:

Defaults to workgroup of "MSHOME" which prevents file sharing with all higher versions of "Windows..". (All higher versions of "Windows.." such as "Windows Vista", "Windows 7", "Windows 8", "Windows 8.1", and "Windows 10" default to a workgroup of "WORKGROUP".)

If you wish to share files with a higher version of "Windows..", you must switch the workgroup of a "Windows XP.." computer from "MSHOME" to "WORKGROUP".

WINDOWS VISTA

Network File and Folder Sharing = File Sharing

Choice between Read and Read/Write Permission Level

See the "Windows Vista" section at

<http://www.my-quickbooks-expert.com/file-sharing.html>

Advanced Sharing

Allow or Deny Permissions of Full Control and/or Change and/or Read

Public Folders

See

<http://windows.microsoft.com/en-US/windows-vista/Share-files-and-folders-over-the-network-from-Windows-Vista-Inside-Out>

"WINDOWS 7 HOME BASIC" & "WINDOWS 7 STARTER"

Network File and Folder Sharing = File Sharing

Choice between Read and Read/Write Permission Level

Homegroups: Can join an existing homegroup but cannot create one.

**WINDOWS 7 HOME PREMIUM (AND HIGHER)
AND
WINDOWS 8 OR 8.1**

Network File and Folder Sharing = File Sharing

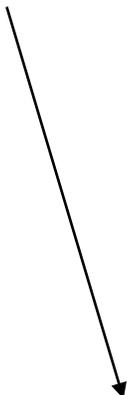
Choice between Read and Read/Write Permission Level

See

<http://www.home-network-help.com/file-sharing-in-windows-7.html>

You determine whether a username/password is required:

Turn off to let anyone on the local area network access a "File Sharing" folder:





Homegroups: Can join an existing homegroup and can create one.

See

<http://sourcedaddy.com/windows-7/advanced-sharing.html>

FOR ALL "WINDOWS 7.." COMPUTERS:
BELONGING TO A "DOMAIN" AFFECTS THE ABILITY OF A "WINDOWS .."
COMPUTER TO SHARE FILES IN HOMEGROUPS

Computers that belong to a domain can join a homegroup, but they can't share files. They can only access files shared by others in the homegroup.

HOMEGROUPS

Homegroup no longer exists when all "Windows 7" computers leave the homegroup.

By default, you share entire "libraries" with the homegroup.

Classic file sharing uses IPv4.
Homegroups use IPv6.

Homegroups do not show up in the
"Network and Sharing Center" (in "Windows 8" and "Windows 7").

"Homegroups" are part of a trend to virtualize networks using software.

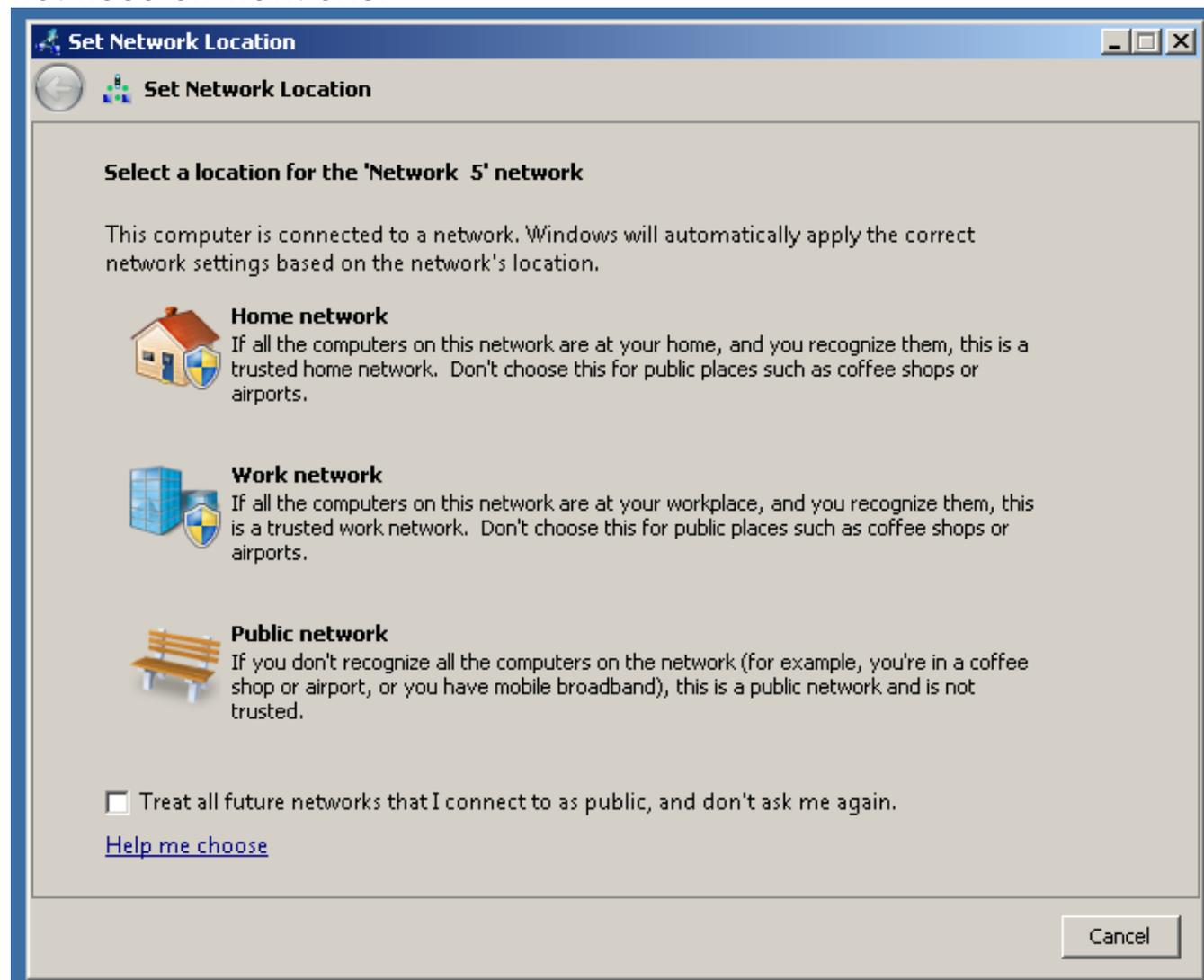
"Homegroups" are Microsoft's response to complaints from endusers that networking is too complicated with too many configuration settings and too many things that can go wrong.

You can think of homegroups as invisible, stealth networks.

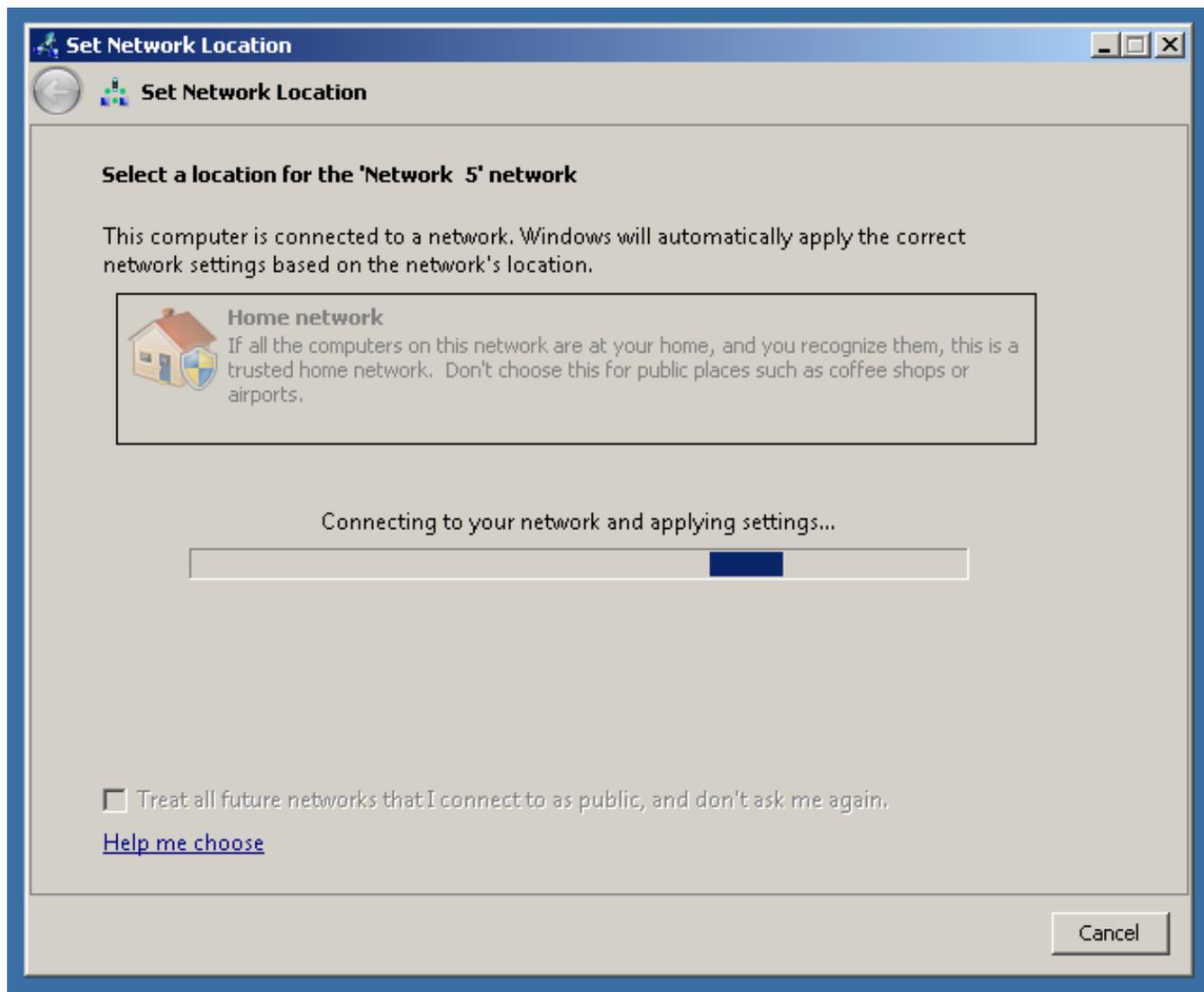
"WINDOWS 7" SOMETIMES ATTEMPTS TO TRICK YOU INTO CREATING A HOMEGROUP

HIGH-LEVEL EXECUTIVE SUMMARY:

When you connect to a new WiFi network or a wired Ethernet network, "Windows 7" sometimes attempts to trick you into starting a HomeGroup, even when you do not need or want one:



*



*

The network location is now Home



Network name: **Network 5**

Location type: **Home**

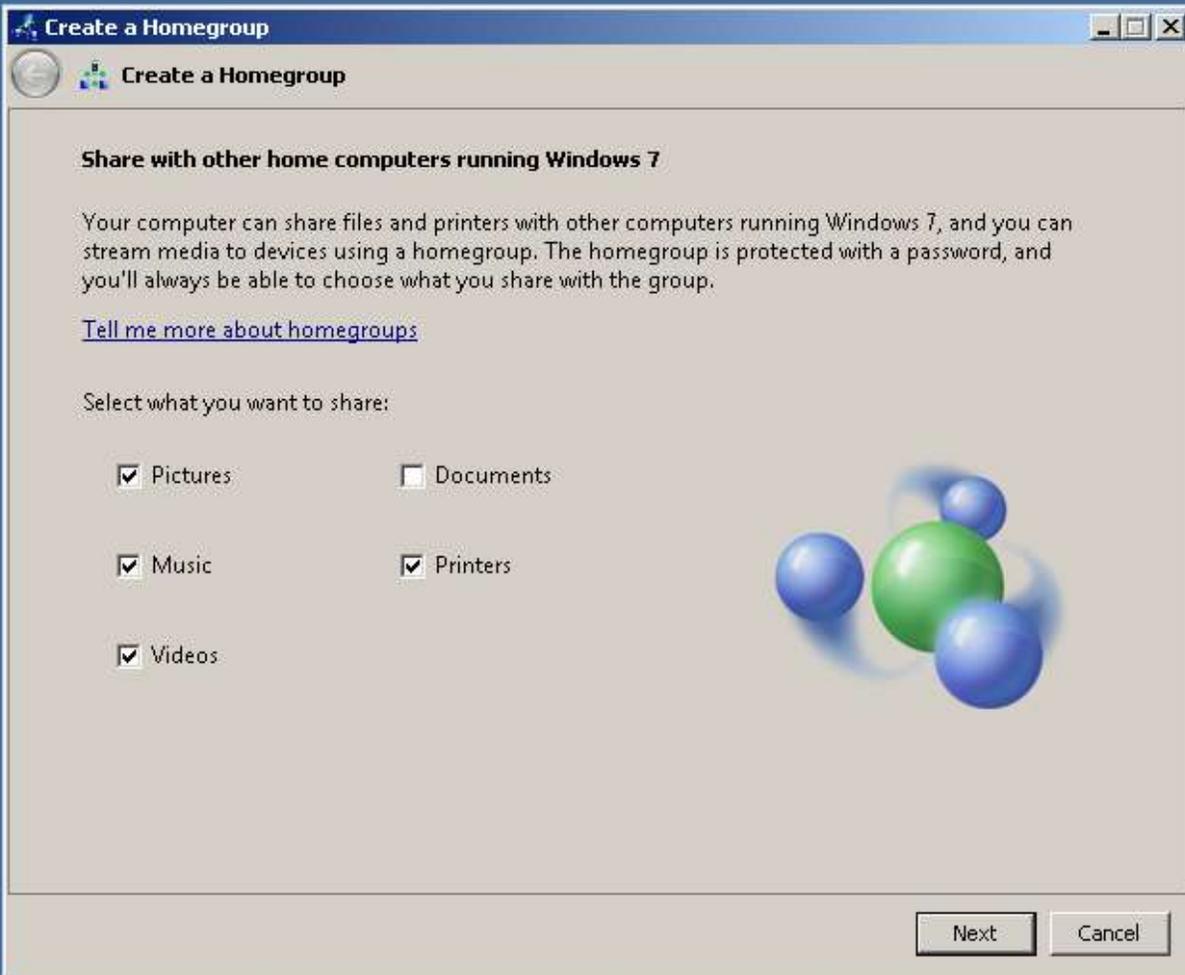
On Home networks, you can see other computers and devices on the network, your computer is discoverable, and you can create or join a homegroup.

[View or change settings in Network and Sharing Center](#)

[View or change HomeGroup settings](#)

Close

*



Openin.

*

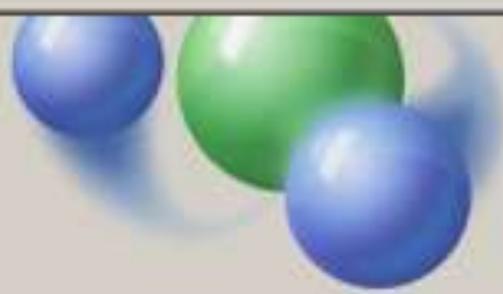
n share files and printers with other computers running Windows 7, and you can
leaves using a homegroup. The homegroup is protected with a password, and
able to

ut ho

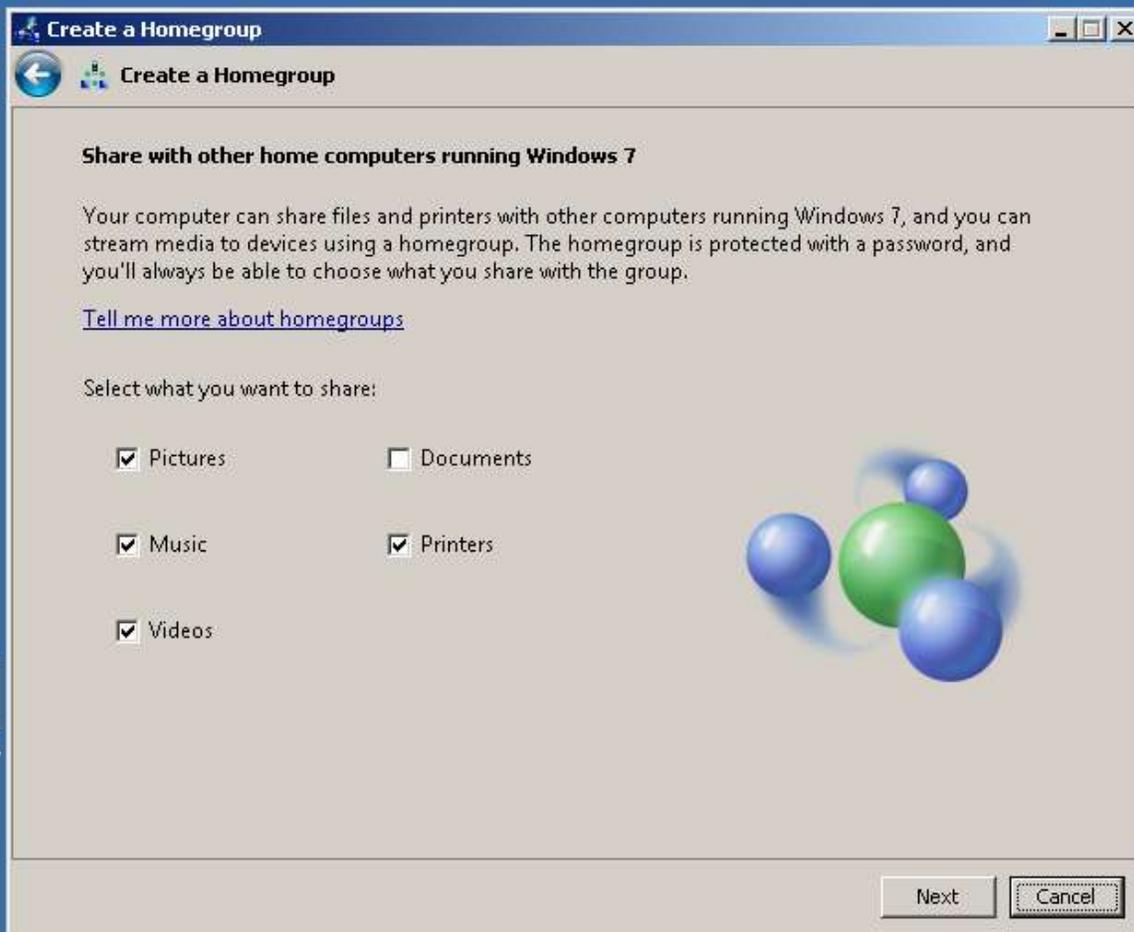
HomeGroup [X]

 Your network connection must have IPv6 enabled to create or join a homegroup. To enable IPv6, start the HomeGroup troubleshooter.

OK



*



*

At this point, click on "Cancel":
You will cancel the creation of a homegroup.
You are not canceling the creation of a network connection.

"HOMEGROUPS" VERSUS "CLASSIC FILE SHARING"

In "Windows 7", "classic networking" (= "classic file sharing") is faster by about 15 percent relative to "Homegroups" but it is quirky (slightly broken):
When you share a folder with "classic file sharing" a higher level of "Windows.." can access your entire "Users" folder--Ouch!.

To check on what is being shared on your home network, go to the computer with the highest, latest version of Windows and use the "Network" and "Homegroup" screen in "Windows Explorer"--you might be surprised!

See

<http://social.answers.microsoft.com/Forums/en-US/w7security/thread/6f912ddb-139e-445a-89fe-863c6aebb510>

See

[The HomeGroup vs. classic-networking faceoff](#)

See

<http://scottiestech.info/2009/09/25/windows-7-file-sharing-fixing-the-entire-user-directory-shared-problem/> See
<http://windows7news.com/forum/windows-7-troubleshooting/windows-7-security-flaw-or-expected-behaviour-when-sharing-folders/>

CONFIGURE NETWORK ADAPTERS OF "WINDOWS" COMPUTERS PRIOR TO ATTEMPTING CONVENTIONAL "SERVER MESSAGE BLOCKS"-BASED FILE SHARING IN "WINDOWS.." COMPUTERS

For "Windows XP", "Windows Vista", "Windows 7" and "Windows 8", you sometimes have to configure the network adapters for ALL computers, before you can perform conventional file sharing:

Step 1:

Go to the computer where the files or folders are being shared from or shared to.

Step 2:

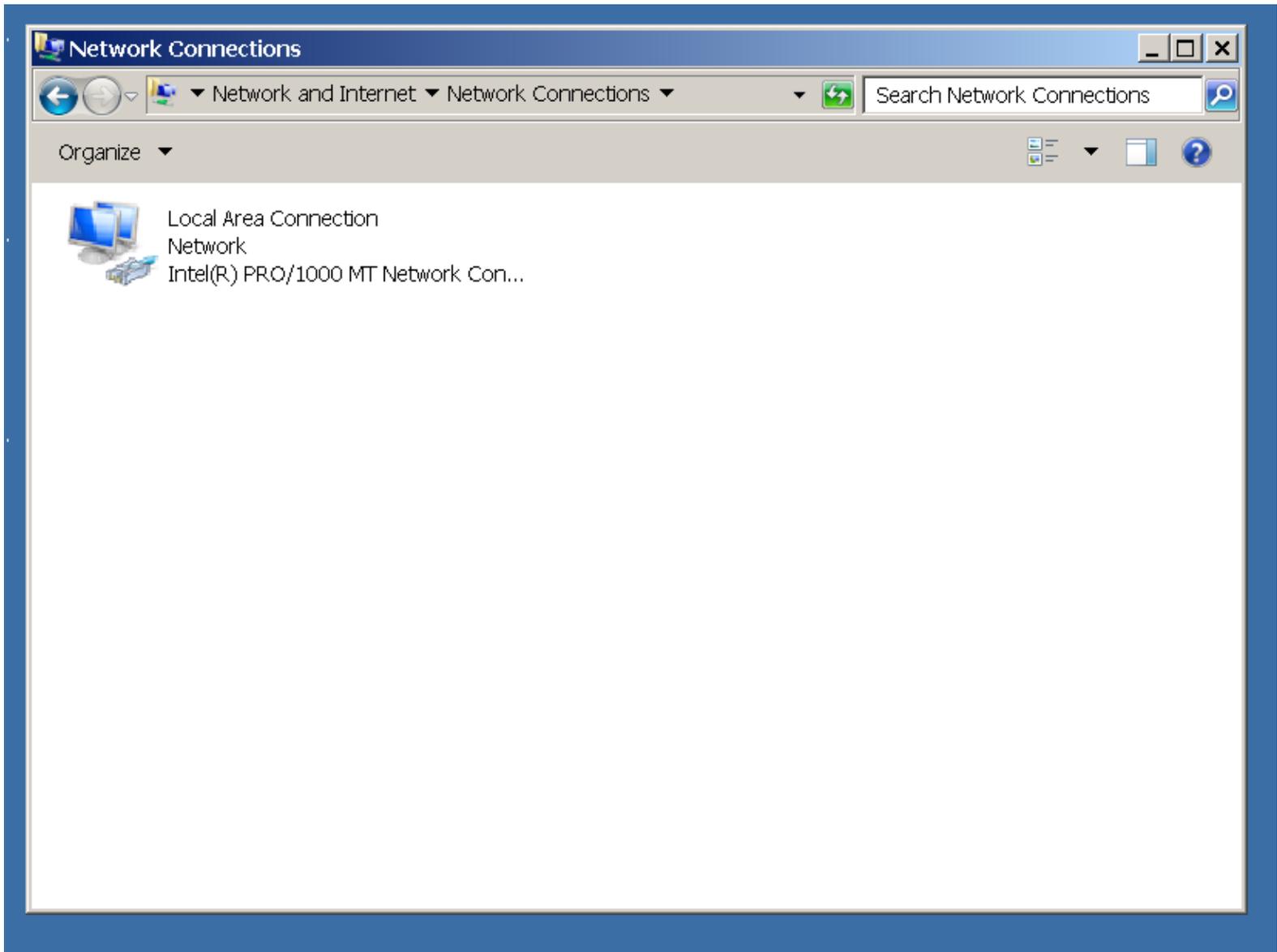
Get into the Windows "Control Panel".

Step 3:

Get into the "Network and Sharing Center" or the "Network Connections" applet.

Step 4:

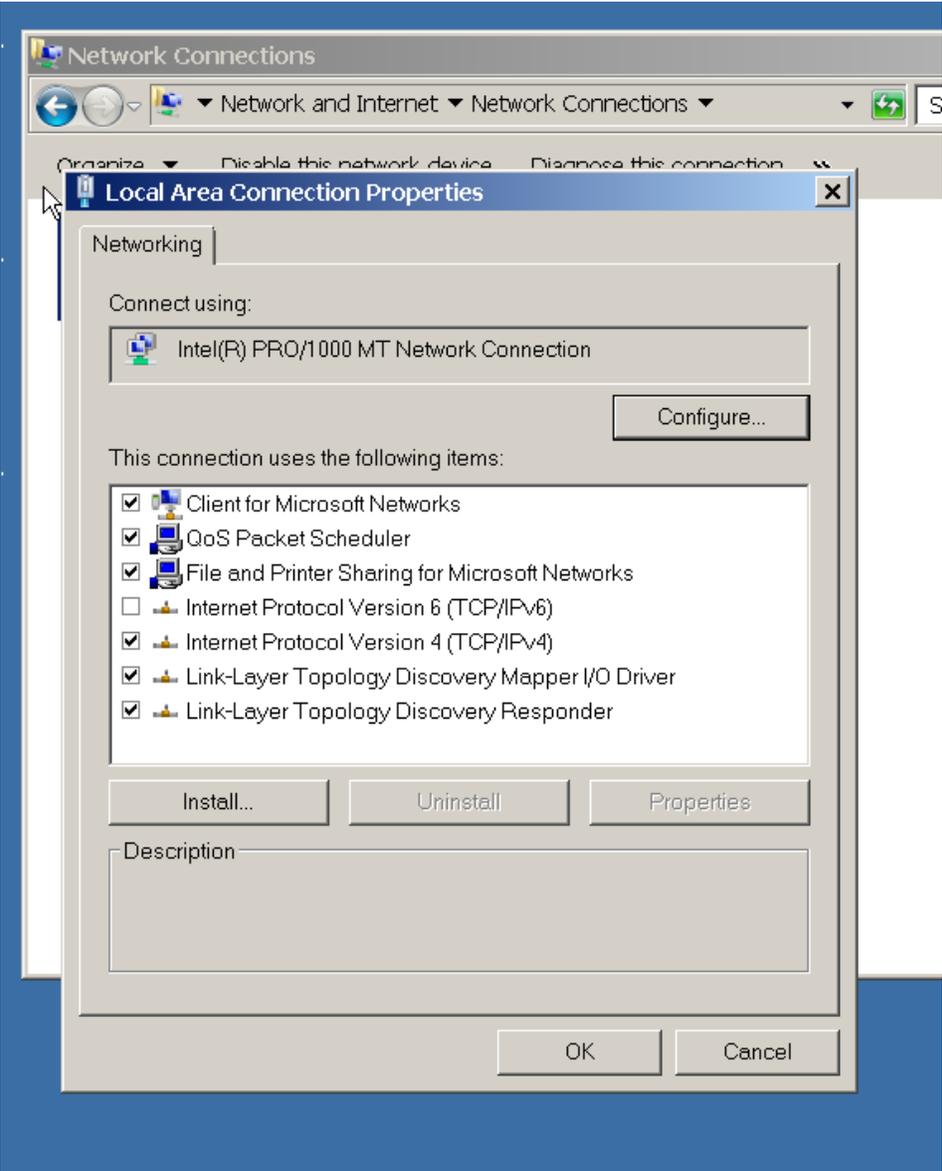
Click on "Change adapter settings".



Step 5:
Right click on network adapter.

Step 6:
Click on "Properties" on the pop-up context menu.

Step 7:
A "Local Area Connection Properties" window will be displayed:



Step 8:

Place a checkmark to the left of "Fire and Printer Sharing for Microsoft Networks".

Step 9:

Click on the "OK" button.

Step 10:

Close the "Network" or "Network Connections" window.

Step 11:

Perform Steps 1 through 10 for all "Windows" computer with which you wish to share files.

CONFIGURE WINDOWS "SERVICES" PRIOR TO ATTEMPTING CONVENTIONAL "SERVER MESSAGE BLOCKS"-BASED FILE SHARING IN "WINDOWS.." COMPUTERS

For "Windows XP", "Windows Vista", "Windows 7" and "Windows 8", you sometimes have to configure and start Windows "services" for ALL computers, before you can perform conventional file sharing:

STEP-BY-STEP PROCEDURE:

Step 1:

Go to the computer where the files or folders are being shared from or shared to.

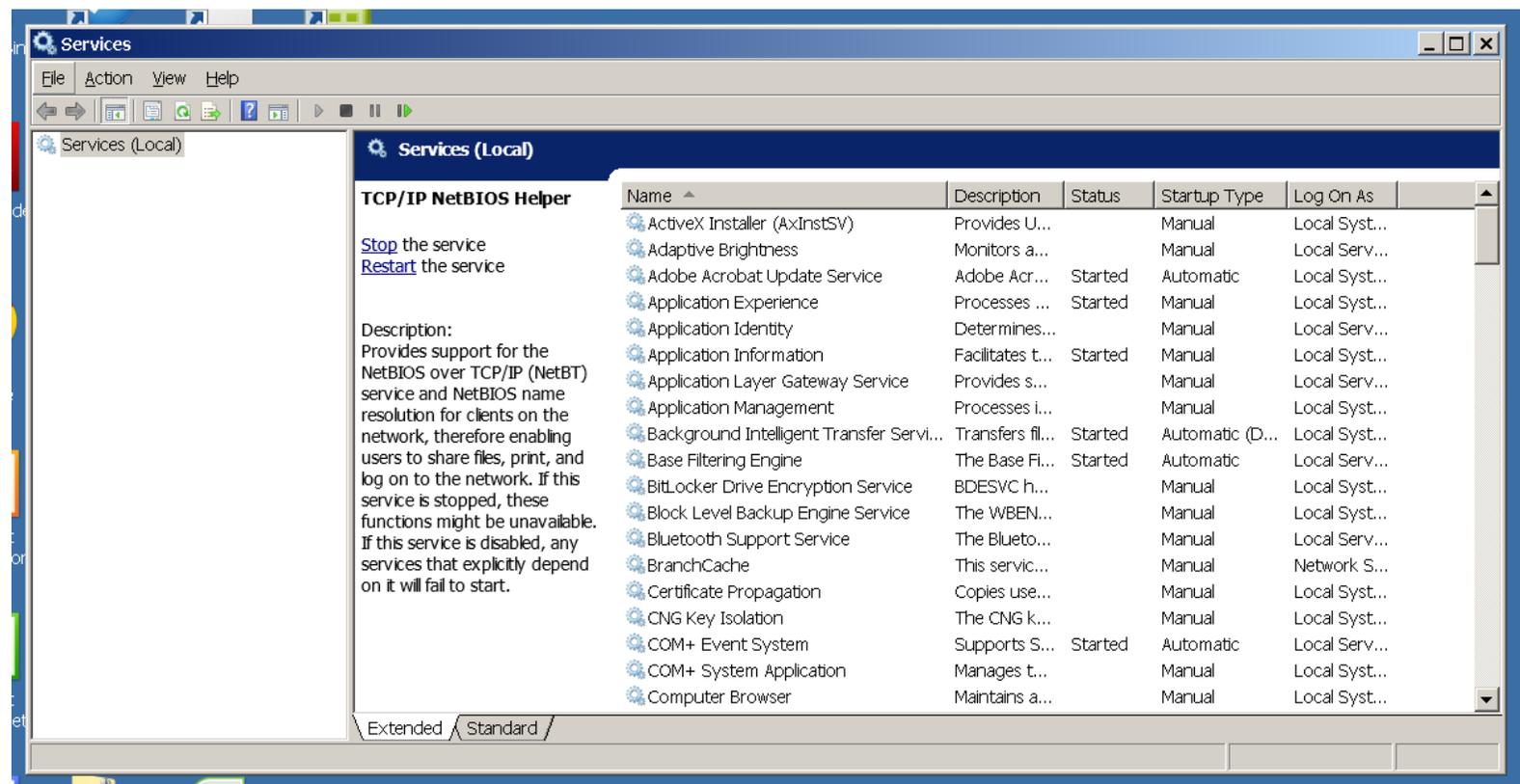
Step 2:

Click on the "Start" button.

Step 3:
In the "Search" box, type in
services.msc

Step 4:
Press the Enter key.

Step 5:
A "Services" Microsoft Management Console window will open:



Step 6: Locate the "Computer Browser" service.

Step 7: Right click on the "Computer Browser" service.

Step 8: Click on "Properties" in the pop-up context menu.

Step 9: A "Computer Browser Properties" window will be displayed.

Step 10: Make the "Startup type" to be "Manual", if it is not already "Manual".

Step 11: Click on the "Start" button, if the "Service status" is "Stopped".

Step 12: Click on the "OK" button.

Step 13: The "Computer Browser Properties" window will disappear.

Step 14: Locate the "IP Helper" service.

Step 15: Right click on the "IP Helper" service.

Step 16: Click on "Properties" in the pop-up context menu.

Step 17: A "IP Helper Properties" window will be displayed.

Step 18: Make the "Startup type" to be "Automatic", if it is not already "Automatic".

Step 19: Click on the "Start" button, if the "Service status" is "Stopped".

Step 20: Click on the "OK" button.

Step 21: The "IP Helper Properties" window will disappear.

Step 22: Locate the "Network Connections" service.

Step 23: Right click on the "Network Connections" service.

Step 24: Click on "Properties" in the pop-up context menu.

Step 25: A "Network Connections Properties" window will be displayed.

Step 26: Make the "Startup type" to be "Manual", if it is not already "Manual".

Step 27: Click on the "Start" button, if the "Service status" is "Stopped".

Step 28: Click on the "OK" button.

Step 29: The "Network Connections Properties" window will disappear.

Step 30: Locate the "Network List Service" service.

Step 31: Right click on the "Network List Service" service.

Step 32: Click on "Properties" in the pop-up context menu.

Step 33: A "Network List Service Properties" window will be displayed.

Step 34: Make the "Startup type" to be "Manual", if it is not already "Manual".

Step 35: Click on the "Start" button, if the "Service status" is "Stopped".

Step 36: Click on the "OK" button.

Step 37: The "Network List Service Properties" window will disappear.

Step 38: Locate the "Network Location Awareness" service.

Step 39: Right click on the "Network Location Awareness" service.

Step 40: Click on "Properties" in the pop-up context menu.

Step 41: A "Network Location Awareness Properties" window will be displayed.

Step 42: Make the "Startup type" to be "Automatic", if it is not already "Automatic".

Step 43: Click on the "Start" button, if the "Service status" is "Stopped".

Step 44: Click on the "OK" button.

Step 45: The "Network Location Awareness Properties" window will disappear.

Step 46: Locate the "Network Store Interface Service" service.

Step 47: Right click on the "Network Store Interface Service" service.

Step 48: Click on "Properties" in the pop-up context menu.

Step 49: A "Network Store Interface Service Properties" window will be displayed.

Step 50: Make the "Startup type" to be "Automatic", if it is not already "Automatic".

Step 51: Click on the "Start" button, if the "Service status" is "Stopped".

Step 52: Click on the "OK" button.

Step 53: The "Network Store Interface Service Properties" window will disappear.

Step 54: Locate the "Peer Name Resolution Protocol" service.

Step 55: Right click on the "Peer Name Resolution Protocol" service.

Step 56: Click on "Properties" in the pop-up context menu.

Step 57: A "Peer Name Resolution Protocol Properties" window will be displayed.

Step 58: Make the "Startup type" to be "Manual", if it is not already "Manual".

Step 59: Click on the "Start" button, if the "Service status" is "Stopped".

Step 60: Click on the "OK" button.

Step 61: The "Peer Name Resolution Protocol" window will disappear.

Step 62: Locate the "Server" service.

Step 63: Right click on the "Server" service.

Step 64: Click on "Properties" in the pop-up context menu.

Step 65: A "Server Properties" window will be displayed.

Step 66: Make the "Startup type" to be "Automatic", if it is not already "Automatic".

Step 67: Click on the "Start" button, if the "Service status" is "Stopped".

Step 68: Click on the "OK" button.

Step 69: The "Server Properties" window will disappear.

Step 70: Locate the "TCP/IP NetBIOS Helper" service.

Step 71: Right click on the "TCP/IP NetBIOS Helper " service.

Step 72: Click on "Properties" in the pop-up context menu.

Step 73: A "TCP/IP NetBIOS Helper Properties" window will be displayed.

Step 74: Make the "Startup type" to be "Automatic", if it is not already "Automatic".

Step 75: Click on the "Start" button, if the "Service status" is "Stopped".

Step 76: Click on the "OK" button.

Step 77: The "TCP/IP NetBIOS Helper Properties" window will disappear.

Step 78: Locate the "Windows Firewall" service.

Step 79: Right click on the "Windows Firewall" service.

Step 80: Click on "Properties" in the pop-up context menu.

Step 81: A "Windows Firewall Properties" window will be displayed.

Step 82: Make the "Startup type" to be "Automatic", if it is not already "Automatic".

Step 83: Click on the "Start" button, if the "Service status" is "Stopped".

Step 84: Click on the "OK" button.

Step 85: The "Windows Firewall Properties" window will disappear.

Step 86: Close the "Services" Window.

Step 87: Perform Steps 1 through 86 for all other "Windows" computers with which you wish to do conventional fire sharing.

**"CHANGE ADVANCED SHARING SETTINGS"
PRIOR TO ATTEMPTING CONVENTIONAL
"SERVER MESSAGE BLOCKS"-BASED FILE
SHARING IN "WINDOWS.." COMPUTERS**

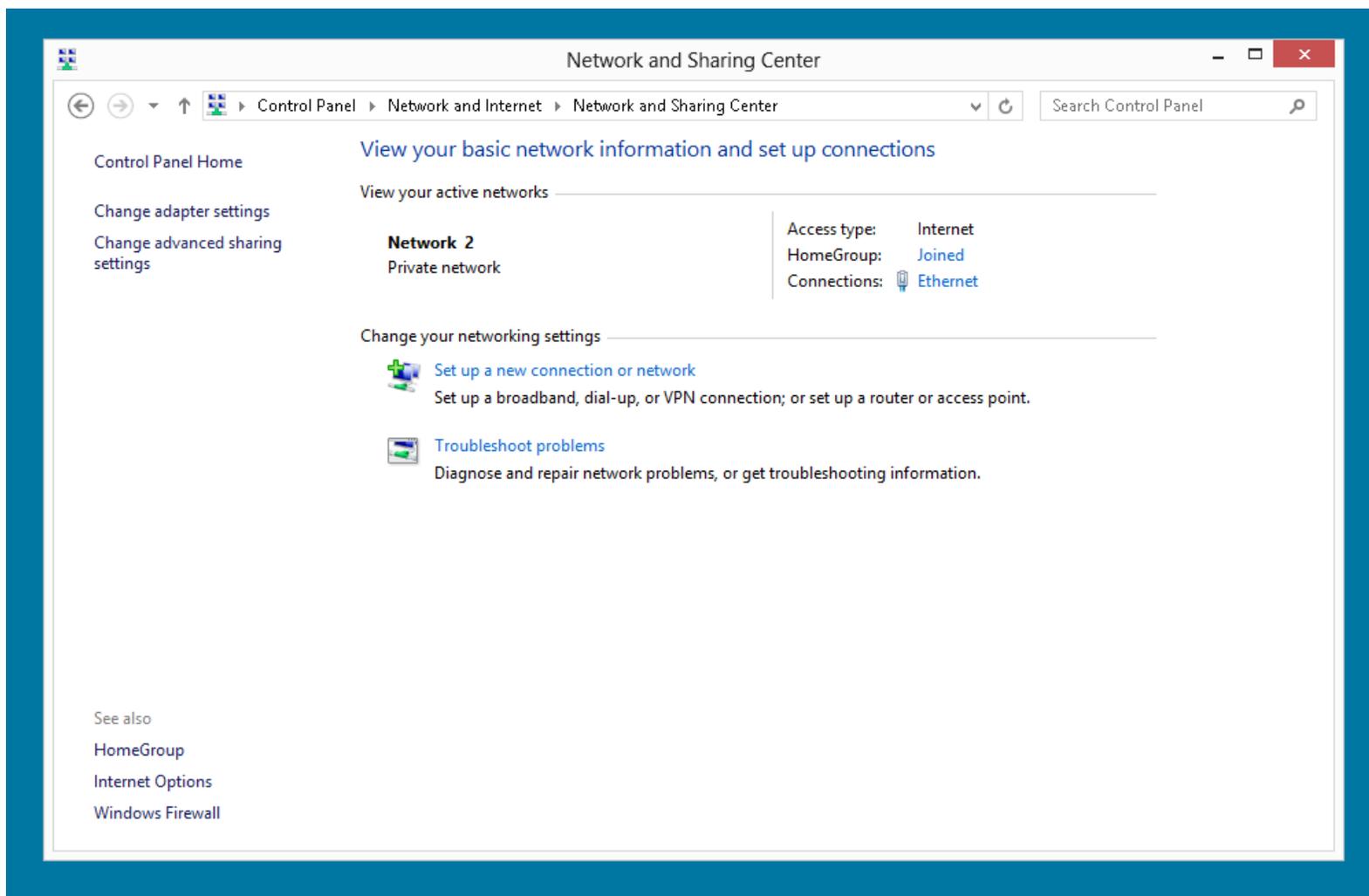
For "Windows 7" and "Windows 8", you sometimes have to configure "Change advanced sharing settings" for for ALL computers, before you can perform conventional file sharing:

STEP-BY-STEP PROCEDURE:

Step 1:
Go to the computer where the files or folders are being shared from or shared to.

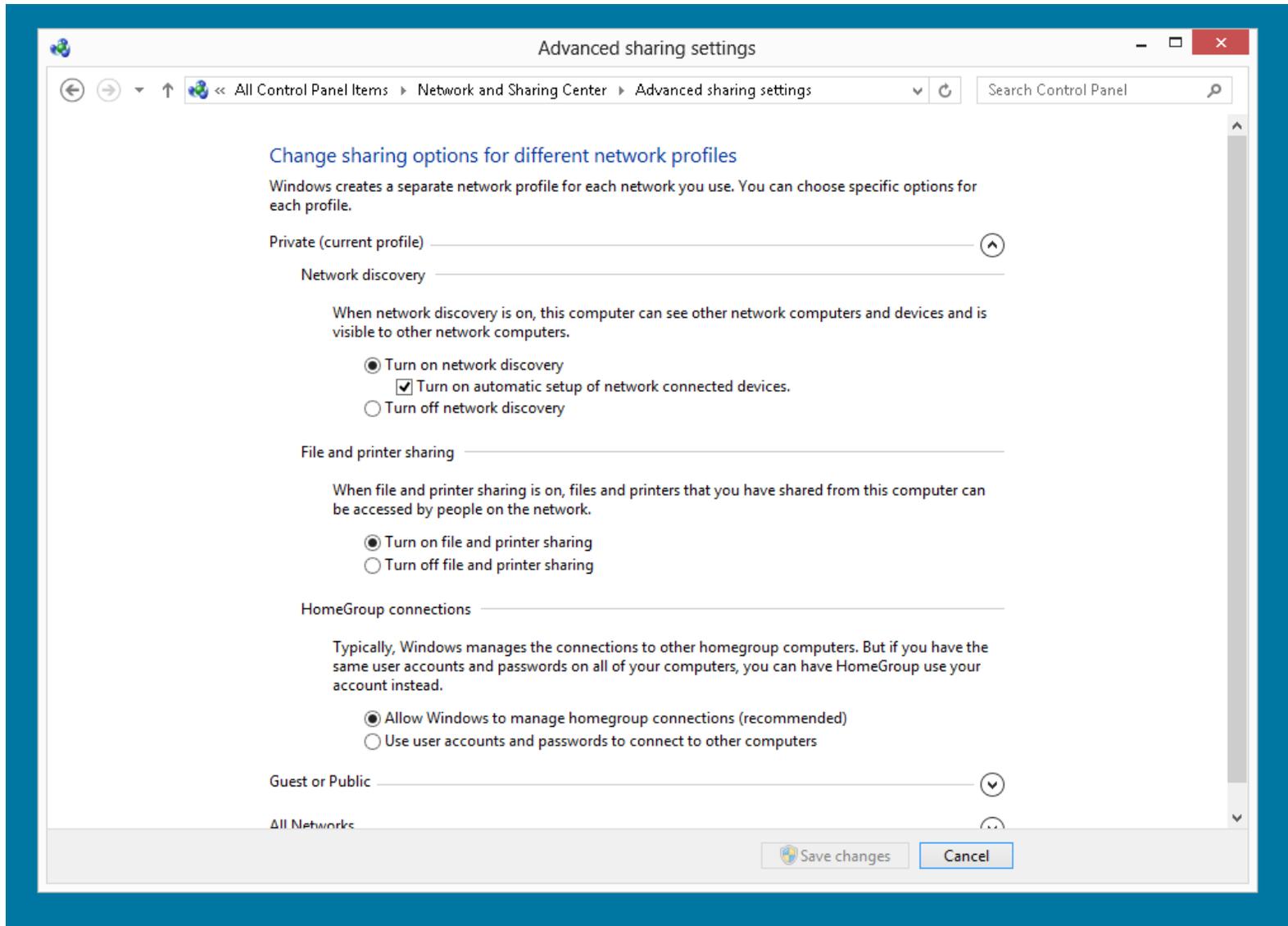
Step 2:
Get into the Windows "Control Panel".

Step 3:
Get into the "Network and Sharing Center".



Step 4:
Click on "Changed advanced sharing settings".

Step 5:
An "Advanced sharing settings" box will be displayed:



Step 6:
For the "Private (current profile)" section:
Select the "Turn on network discovery" option, if it is not already selected.

Step 7:
For the "Private (current profile)" section:
Put in a checkmark for "Turn on automatic setup of network connected devices", if no checkmark is already their.

Step 8:

For the "Private (current profile)" section:
Select the "Turn on file and printer sharing" option, if it is not already selected.

Step 9:
Click on the "Save changes" button in the lower right-hand corner, if it is not grayed out.

Step 10:
Close the "Network and Sharing Center" window.

Step 11:
Perform Steps 1 through 10 for all other "Windows" computer with which you wish to do conventional file sharing.

WHEN A "WINDOWS" COMPUTER DOES NOT SEE ANOTHER COMPUTER, USE THE "IP ADDRESS TRICK"

Go to the target computer (the computer that your Windows computer cannot see), and run
ipconfig
from a command prompt.

Write down the IP address of the target computer.

Go the "Windows" computer that you wish to access the file/folder share from:
Start "Windows Explorer".

Click on "Computer" in the Navigation pane of "Windows Explorer".

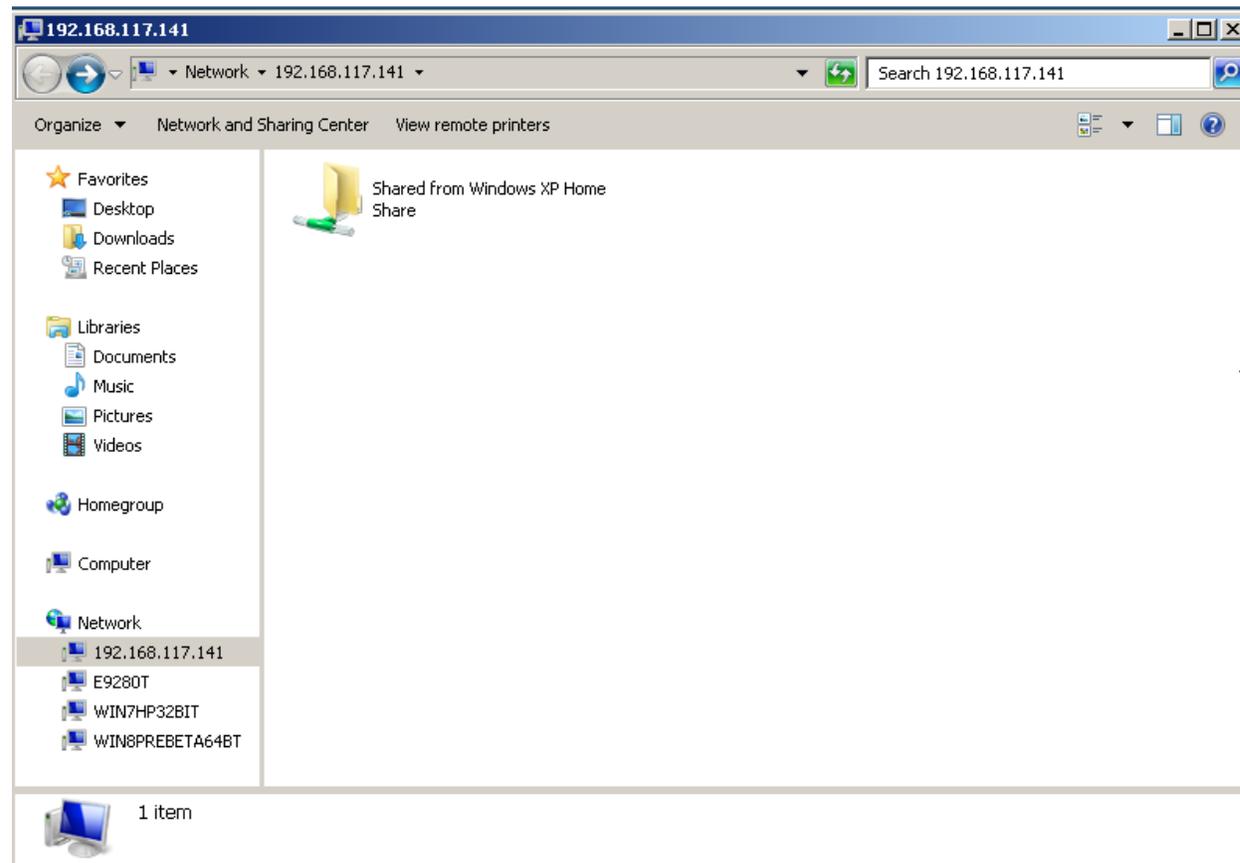
In the address bar, type in

file://<IP address of target computer>

(f as in Frank, i as in indio, l as in Lincoln, e as in Edward, colon, forward leaning slash, forward leaning slash, IP address of target computer).

For example, I typed in
file:///192.168.117.141
Press the Enter key of your keyboard.

The shared folder(s) in the target computer will be displayed:



Double-click on any shared folders that you wish to access.

APPENDIX 1

USING A LINUX COMPUTER TO ACCESS FILES/FOLDERS THAT ARE SHARED FROM A "WINDOWS.." COMPUTER BY MEANS OF "CLASSIC FILE SHARING"

STEP-BY-STEP PROCEDURE:

Step 1:

Go to the computer where the files or folders are being shared from.

Step 2:

Open a terminal window:

Step 3:

If the computer is a "Windows" computer, type in
`ipconfig /all`
and press the enter key.

If the computer is a Linux computer, type in
`ifconfig`
and press the enter key:

Step 4:
Locate
the IP
address
of the real
network
adapter
and write
it down.
In our
example,
the IP
address
is
127.0.0.1

```
testuser@testuser-VGC-RA820G-UC: ~
File Edit View Search Terminal Help
collisions:0 txqueuelen:1000
RX bytes:1506814 (1.5 MB) TX bytes:238224 (238.2 KB)
lo    Link encap:Local Loopback
      inet addr:127.0.0.1  Mask:255.0.0.0
      inet6 addr: ::1/128 Scope:Host
      UP LOOPBACK RUNNING MTU:16436 Metric:1
      RX packets:466 errors:0 dropped:0 overruns:0 frame:0
      TX packets:466 errors:0 dropped:0 overruns:0 carrier:0
      collisions:0 txqueuelen:0
      RX bytes:69688 (69.6 KB) TX bytes:69688 (69.6 KB)
vboxnet0  Link encap:Ethernet  HWaddr 0a:00:27:00:00:00
        inet addr:192.168.56.1  Bcast:192.168.56.255  Mask:255.255.255
        inet6 addr: fe80::800:27ff:fe00:0/64 Scope:Link
        UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
        RX packets:0 errors:0 dropped:0 overruns:0 frame:0
        TX packets:278 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:0 (0.0 B) TX bytes:54138 (54.1 KB)
vmnet1    Link encap:Ethernet  HWaddr 00:50:56:c0:00:01
        inet addr:172.16.106.1  Bcast:172.16.106.255  Mask:255.255.255
        inet6 addr: fe80::250:56ff:fec0:1/64 Scope:Link
        UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
        RX packets:0 errors:0 dropped:0 overruns:0 frame:0
        TX packets:169 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:0 (0.0 B) TX bytes:0 (0.0 B)
vmnet8    Link encap:Ethernet  HWaddr 00:50:56:c0:00:08
        inet addr:172.16.211.1  Bcast:172.16.211.255  Mask:255.255.255
        inet6 addr: fe80::250:56ff:fec0:8/64 Scope:Link
        UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
        RX packets:0 errors:0 dropped:0 overruns:0 frame:0
        TX packets:165 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:0 (0.0 B) TX bytes:0 (0.0 B)
```

Step 5:

Go to the virtual or real computer from which you wish to access the files on the source computer and click on open a “Nautilus” file management window if this computer is running Linux.

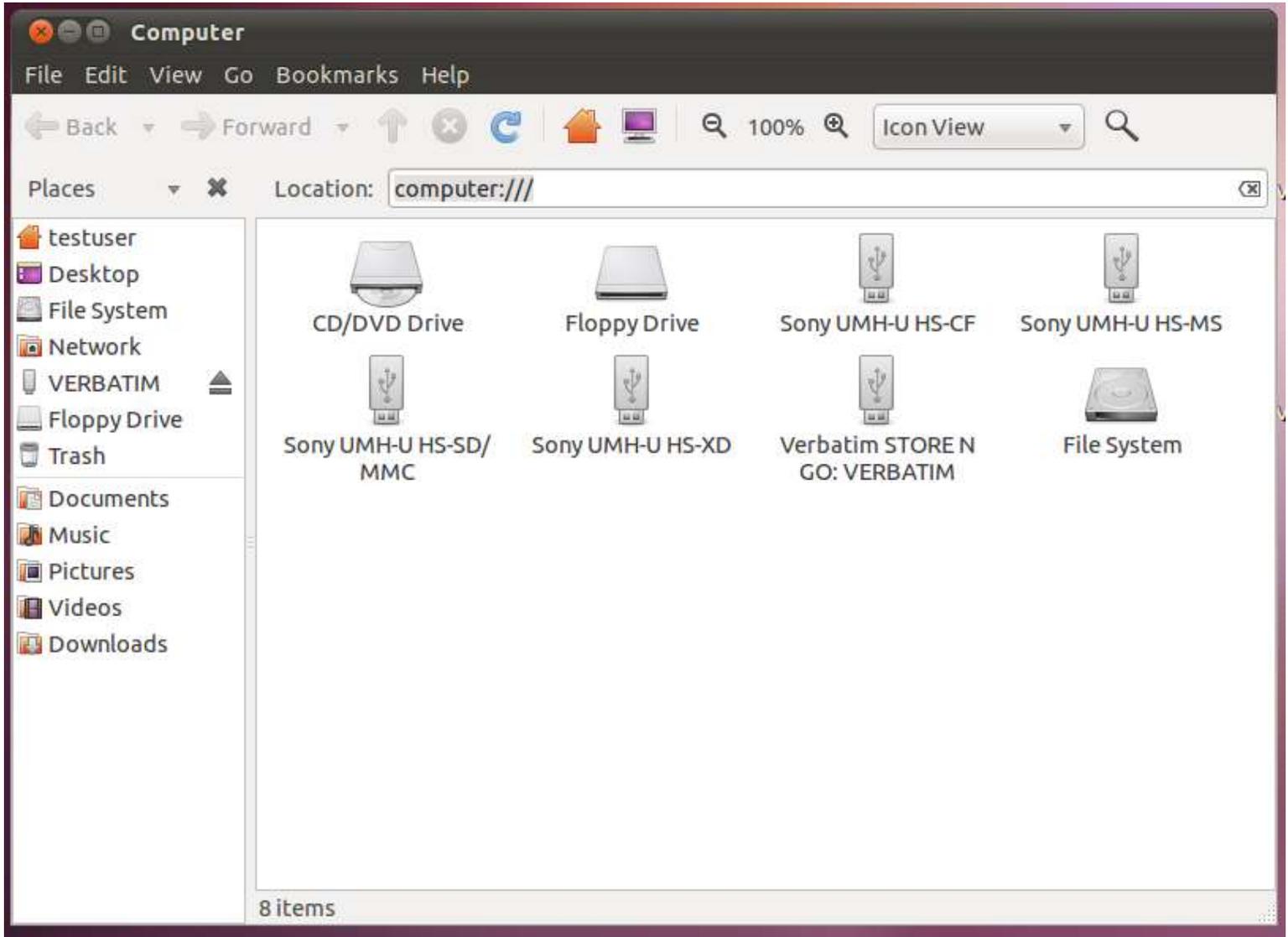
If the virtual or real computer from which you wish to access the files on the source computer is a Ubuntu Linux computer, click on “Places” and then click on “Computer”:



Step 6:

If you now have a “Windows Explorer”, “My Computer” or “Computer” windows, go to it's address box.

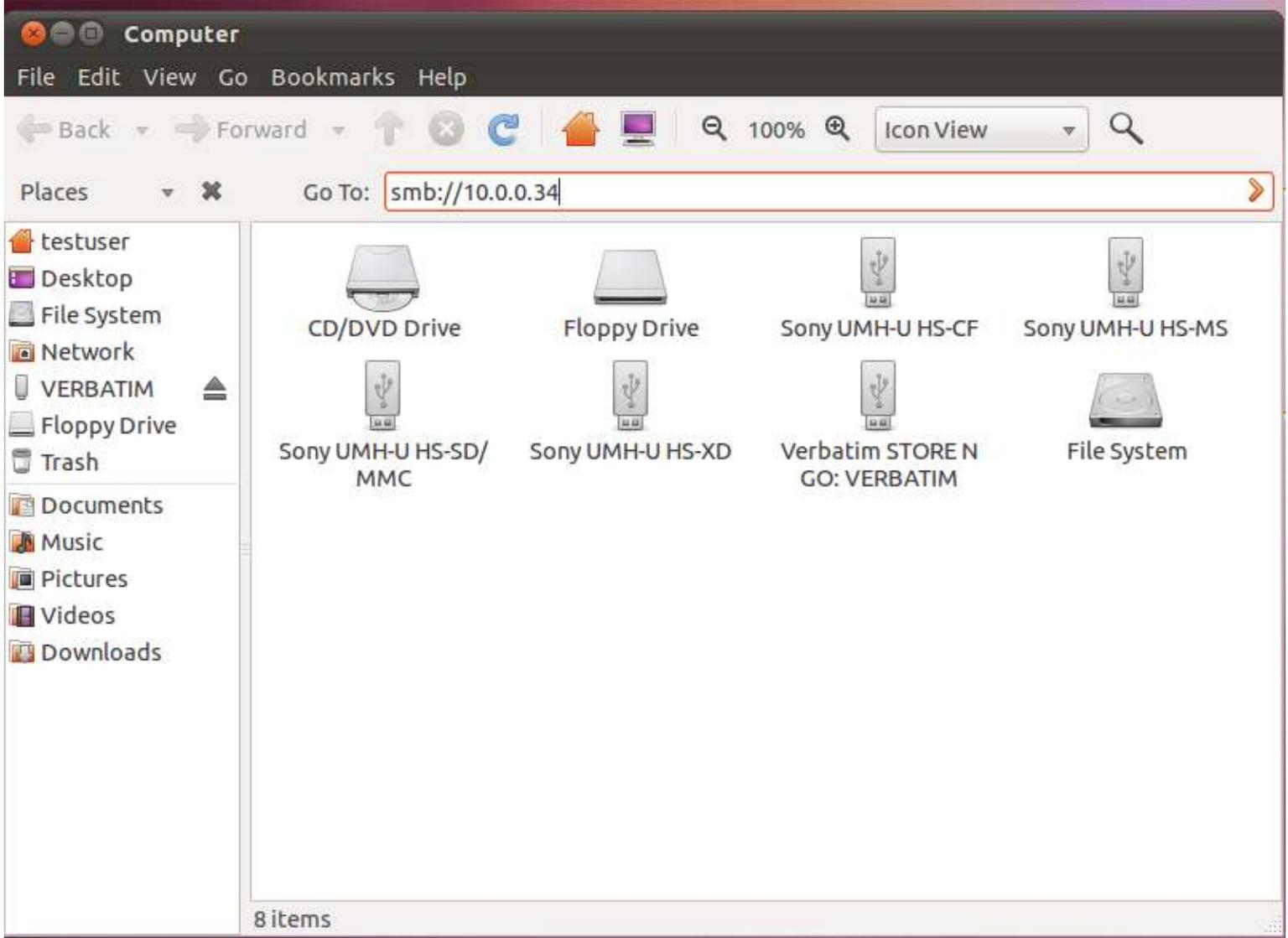
If you now have a “Nautilus” window, click on “Go”. Then click on “Location”:



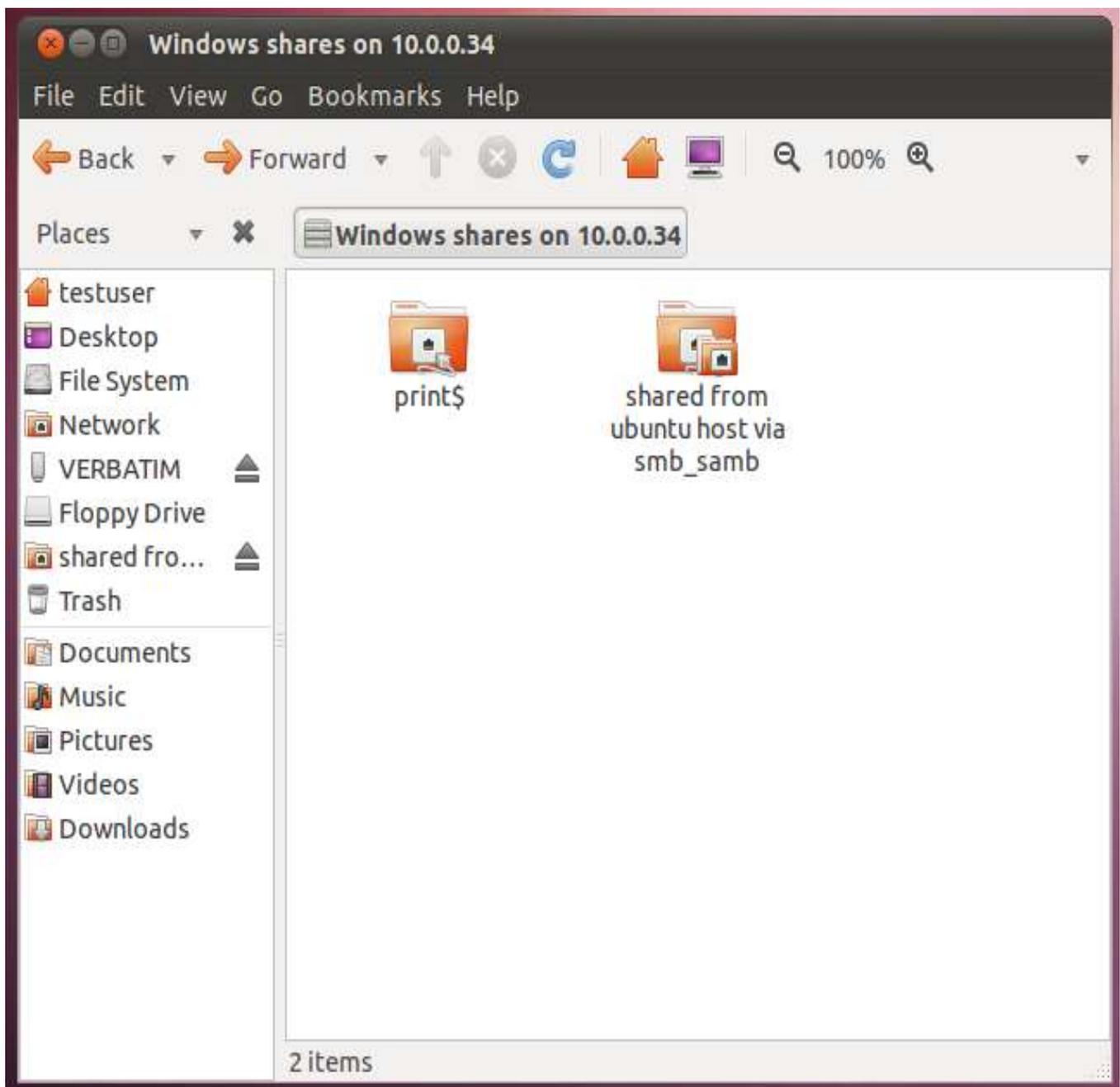
If the virtual or real computer from which you wish to access the files is a “Windows” computer, open a “Windows Explorer”, “Computer”, or “My Computer” window instead of a “Nautilus” window.

Step 7:

In the address box, type in `smb://<ip address of destination>` and then press the enter key of the keyboard. In our example, we type in `smb://10.0.0.34` and then we pressed the enter key:

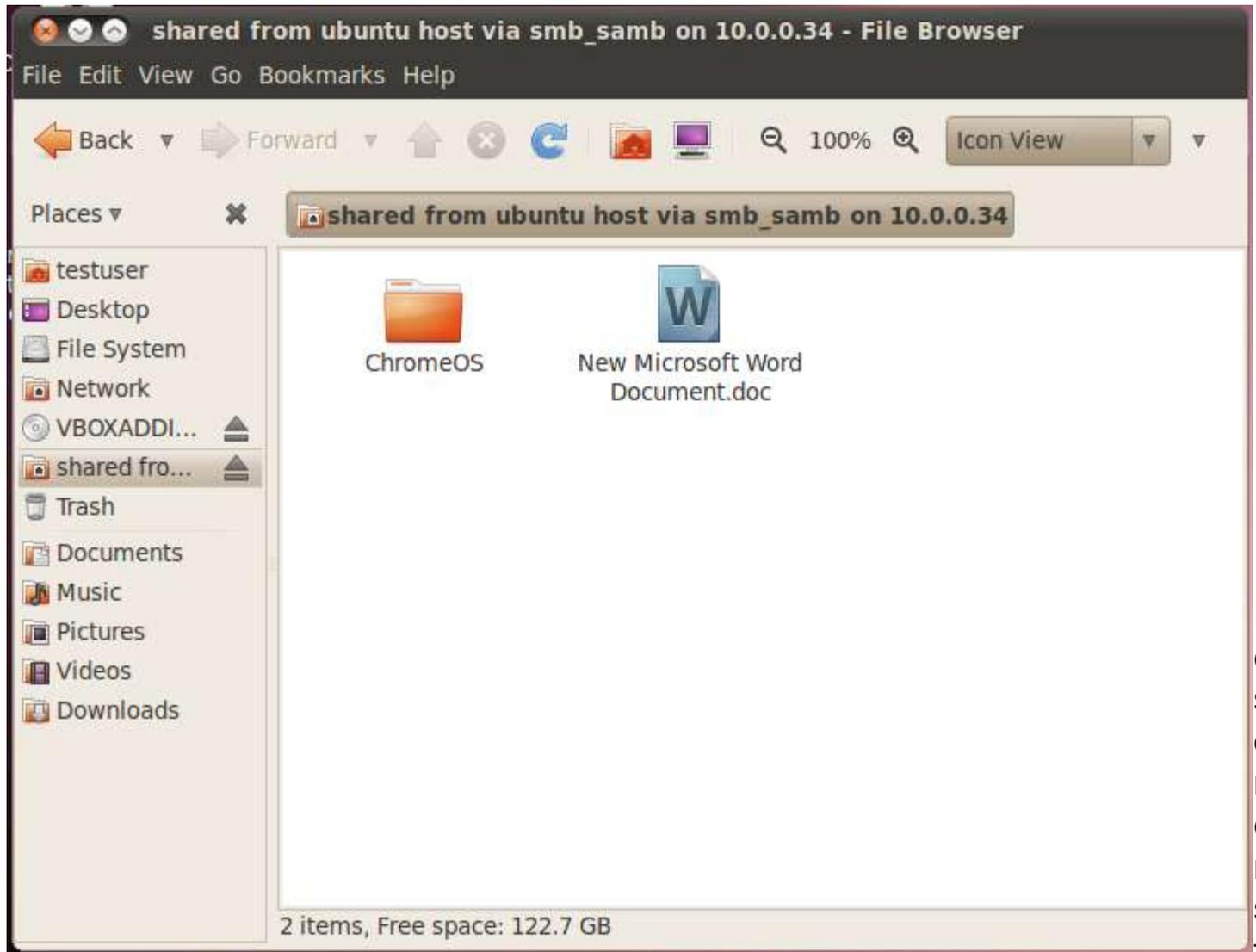


Step 8:
All of the shared folders on the target computer will be displayed:



Note that "Ubuntu" refers to remote files that are shared via "Samba" ("SMB" are called "Windows shares").

In this example, a shared folder and a shared printer are displayed. If you double-click on the shared folder, you will see it's contents:



Please do not confuse the

se shared folders with those shared by means of the "Shared Folders" gateway/router. These shared folders are shared by means of standard sharing mechanisms such as "Samba" (SMB) and "Network File System" (NFS) and utilize the virtual Ethernet adapter(s) that is provided to the virtual machine by "Vmware Player". The "Shared Folders" gateway/router provides fo one-way file sharing that is proprietary to the "Vmware Player" software application—it can only share folders that are located on the host computer.

APPENDIX 2

TROUBLESHOOTING "WINDOWS FIREWALL" ISSUES IN CONVENTIONAL "SERVER MESSAGE BLOCK"-BASED FILE SHARING

An incorrectly-configured "Windows Firewall" or third-party software firewall can block file sharing in one or both directions so here are the steps for resolving this issue from Jon Griebel of "ProAct Software Consulting":

Diagnostic steps: acquire the local IP addresses of both machines (IPCONFIG command) then attempt to ping (PING command) from machine 1 to machine 2, then from machine 2 to machine 1

For example

```
ping 192.168.0.1 /t
```

If the PING fails in one direction only, then check the firewall settings on the target machine. AVAST firewall and AVG Pro firewall are notorious for setup issues

If the PING works both ways then check the workgroup names and sharing permissions on the failing target