

# FILE SHARING

OVER A “LOCAL AREA NETWORK”  
IN “WINDOWS..”

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# SUMMARY

- For "Windows 7" and "Windows 8", the use of "homegroups" makes file sharing easy but there is a 15 percent reduction in performance.
- For file sharing between "Windows 7" and earlier versions of "Windows..", you have to use "classic file sharing"
- 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" the process

## BASIC INFORMATION.. (continued)

### “**WINDOWS XP HOME**”

- “Simple File Sharing” only:  
cannot designate which username to share with
- Defaults to workgroup of "MSHOME" which prevents file sharing with “Windows Vista” and higher  
Usually have to switch workgroup from "MSHOME" to "WORKGROUP”

# BASIC INFORMATION.. (continued)

## “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 with

- Defaults to workgroup of "MSHOME" which prevents file sharing with “Windows Vista” and higher:

Usually have to switch workgroup from "MSHOME" to "WORKGROUP".

# BASIC INFORMATION.. (continued)

## “WINDOWS VISTA”

- “Network File and Folder Sharing” = “File Sharing”

See the "Windows Vista" section at

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

- “Advanced Sharing”

See

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

- Defaults to workgroup of “WORKGROUP”

# BASIC INFORMATION.. (continued)

## **"WINDOWS 7 HOME BASIC" & "WINDOWS 7 STARTER"**

- "Network File and Folder Sharing"  
= "File Sharing"
- "Homegroups": Can join an existing homegroup but cannot create one
- Defaults to workgroup of  
"WORKGROUP"

# BASIC INFORMATION.. (continued)

## **“WINDOWS 7 HOME PREMIUM” (AND HIGHER) AND “WINDOWS 8”**

- “Network File and Folder Sharing”  
=File Sharing

See

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



# BASIC INFORMATION.. (continued)

## **“WINDOWS 7 HOME PREMIUM” (AND HIGHER) AND “WINDOWS 8” (continued)**

- In “Windows 7 Home Premium” (and higher) and “Windows 8”, you determine whether a username/password is required:
  - Go to “Advanced sharing settings” in the “Network and Sharing Center” in the “Control Panel.

# BASIC INFORMATION.. (continued) “WINDOWS 7 HOME PREMIUM” (AND HIGHER) AND “WINDOWS 8” (continued)

- Select “Turn off password protected sharing to let anyone on the local area network access a "File Sharing" folder:



# BASIC INFORMATION.. (continued)

## **“WINDOWS 7 HOME PREMIUM” (AND HIGHER) AND “WINDOWS 8” (continued)**

- Full functionality with “homegroups”:  
Can join an existing “homegroup”  
and can create one.

See

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

# MORE ABOUT “HOMEGROUPS”

- A “homegroup” no longer exists when all “Windows 7” computers leave the homegroup.
- By default, you share entire “libraries” with the “homegroup”.

# MORE ABOUT “HOMEGROUPS”

## (continued)

- “Homegroups” do not show up in the “Network and Sharing Center” (in “Windows 7” and “Windows 8”).
- “Homegroups” are part of a trend to virtualize networks using software.
- “You can think of homegroups as invisible, stealth networks.

# “HOMEGROUPS” VERSUS “CLASSIC FILE SHARING”

- “Classic file sharing” uses IPv4.
- “Homegroups” use IPv6

If you are using a router that is more than 3 years old, it might not support IPv6

# “HOMEGROUPS” VERSUS “CLASSIC FILE SHARING” (continued)

- In "Windows 7", "classic networking" (= "classic file sharing") is faster by about 15 percent relative to "homegroups"

See

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

by Fred Langa

# **“HOMEGROUPS” VERSUS “CLASSIC FILE SHARING” (continued)**

- When you share a folder with "classic file sharing" a higher level of "Windows..", sometimes other computers can access your entire "Users" folder (→Ouch!).



# **“HOMEGROUPS” VERSUS “CLASSIC FILE SHARING” (continued)**

See

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

and

<http://windows7news.com/forum/windows-7-troubleshooting/windows-7-security-flaw-or-expected-behaviour-when-sharing-folders/>

# **“HOMEGROUPS” VERSUS “CLASSIC FILE SHARING” (continued)**

- A workaround fix can be found at <http://scottiestech.info/2009/09/25/windows-7-file-sharing-fixing-the-entire-user-directory-shared-problem/>

# “IP ADDRESS TRICK”

TO MAKE A “WINDOWS..” COMPUTER “SEE”  
ANOTHER COMPUTER

Step 1:

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.

# **“IP ADDRESS TRICK”** (continued)

## **Step 2:**

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

## **Step 3:**

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

# “IP ADDRESS TRICK” (continued)

## Step 4:

In the address bar of “Windows Explorer”, 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

# “IP ADDRESS TRICK” (continued)

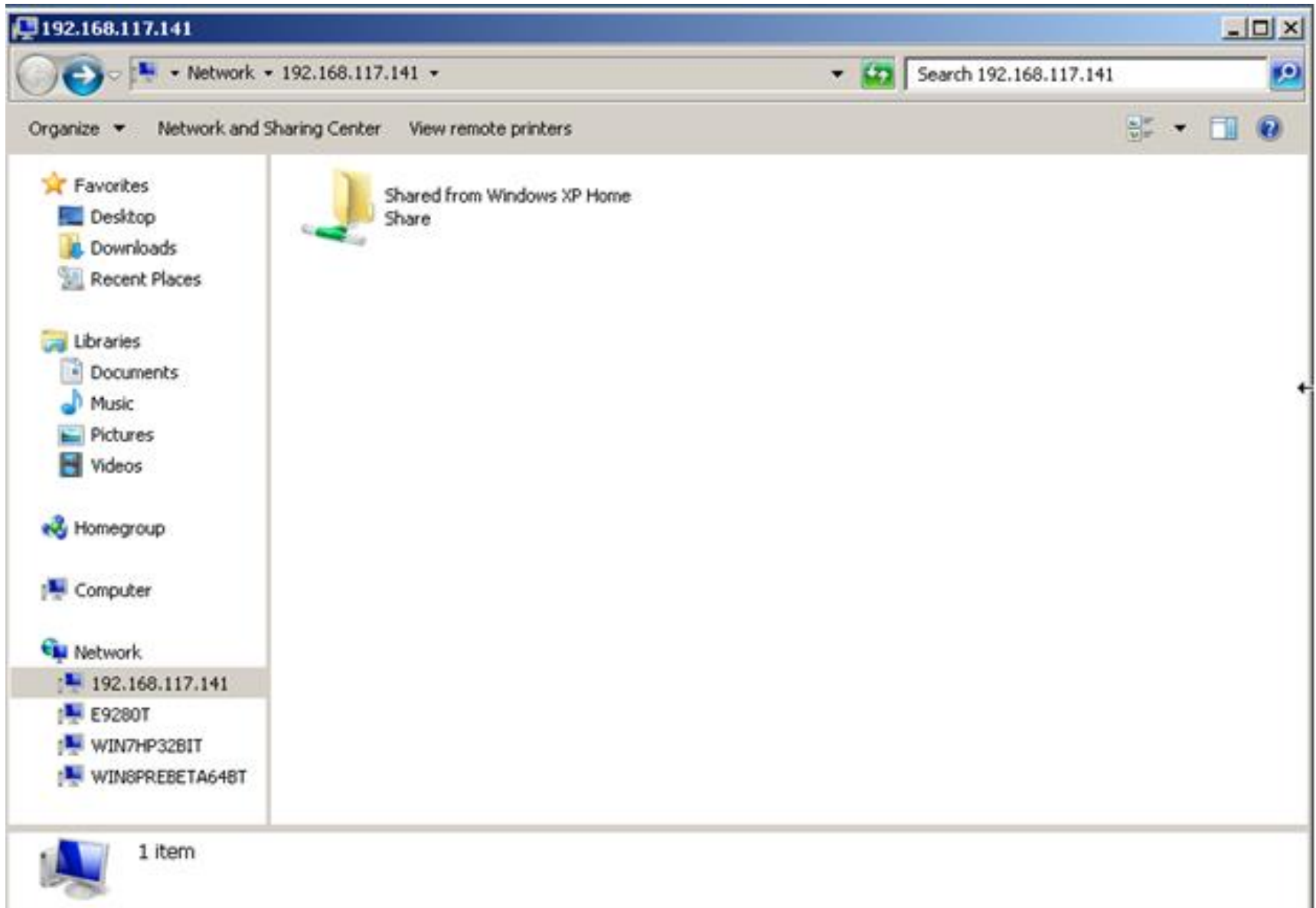
Step 5:

Press the Enter key of your keyboard.

Step 6:

The shared folders in the target computer will be displayed:

# “IP ADDRESS TRICK” (continued)



# “IP ADDRESS TRICK” (continued)

## Step 7:

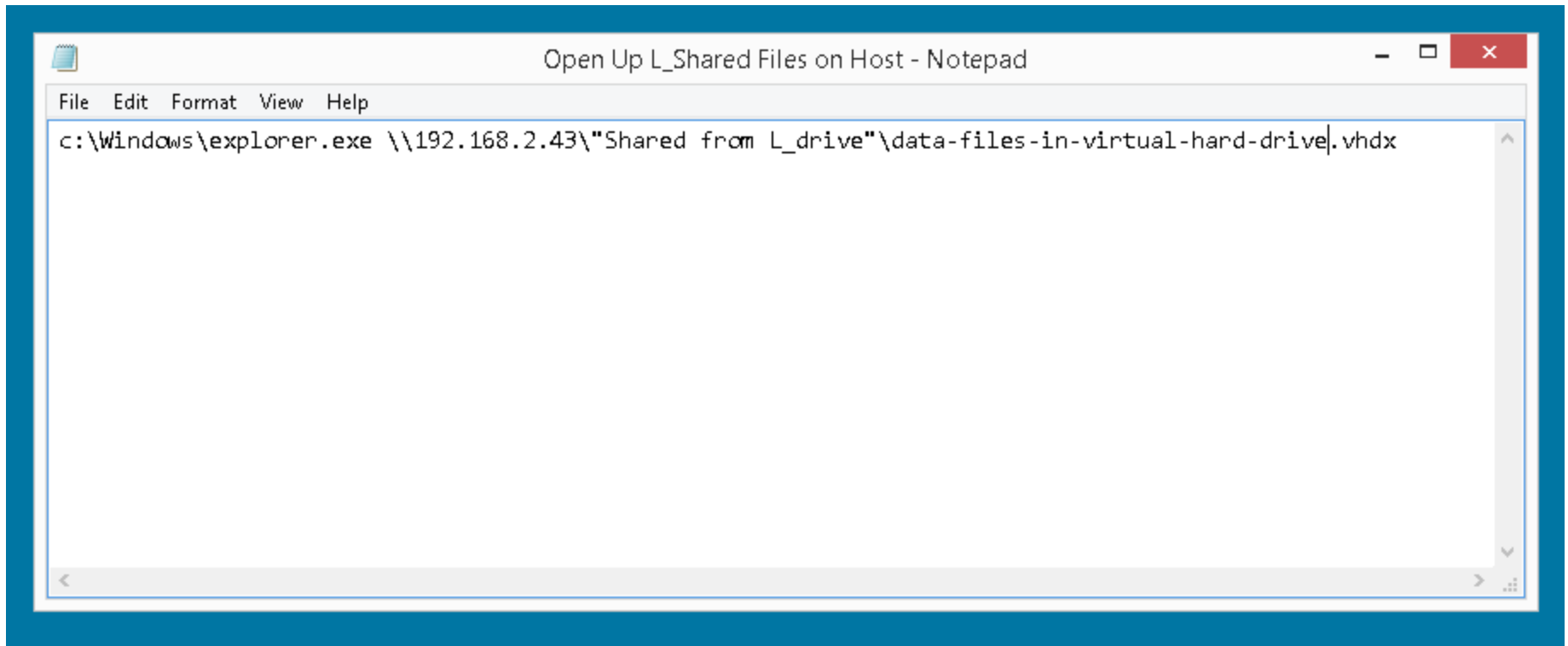
Double-click on any shared folders that you wish to access.



## **“IP ADDRESS TRICK”** (continued)

You can use the "IP Address Trick" to speed up the opening of a shared folder using in a batch file.

In this example, we show a line in a .BAT batch file in which we invoke "File Explorer" in "Windows 8" to access and "mount" a .VHD virtual hard drive (file) in a shared folder located on a server that is on the same local network as the "Windows 8" end-user computer:

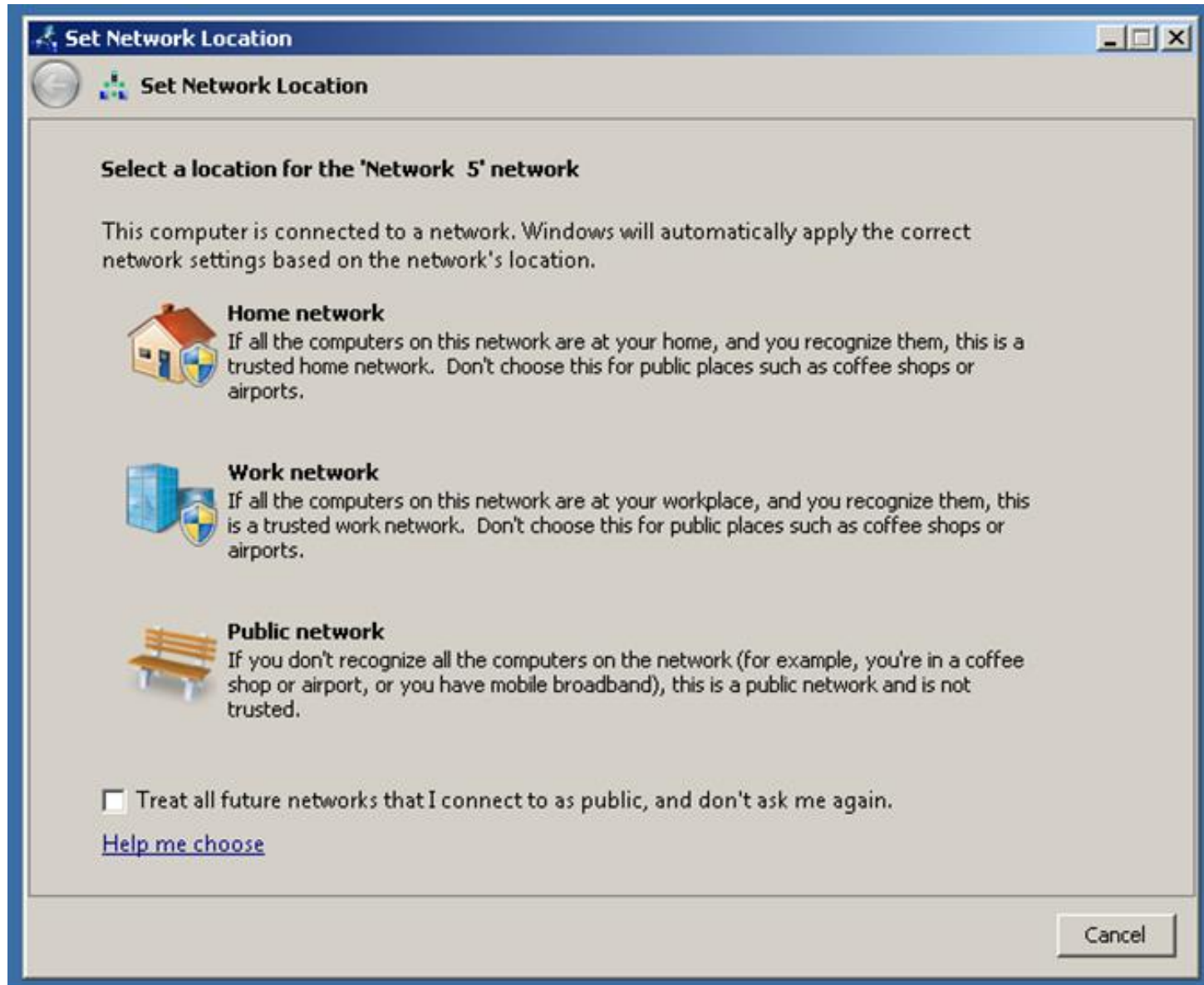


# APPENDIX 1

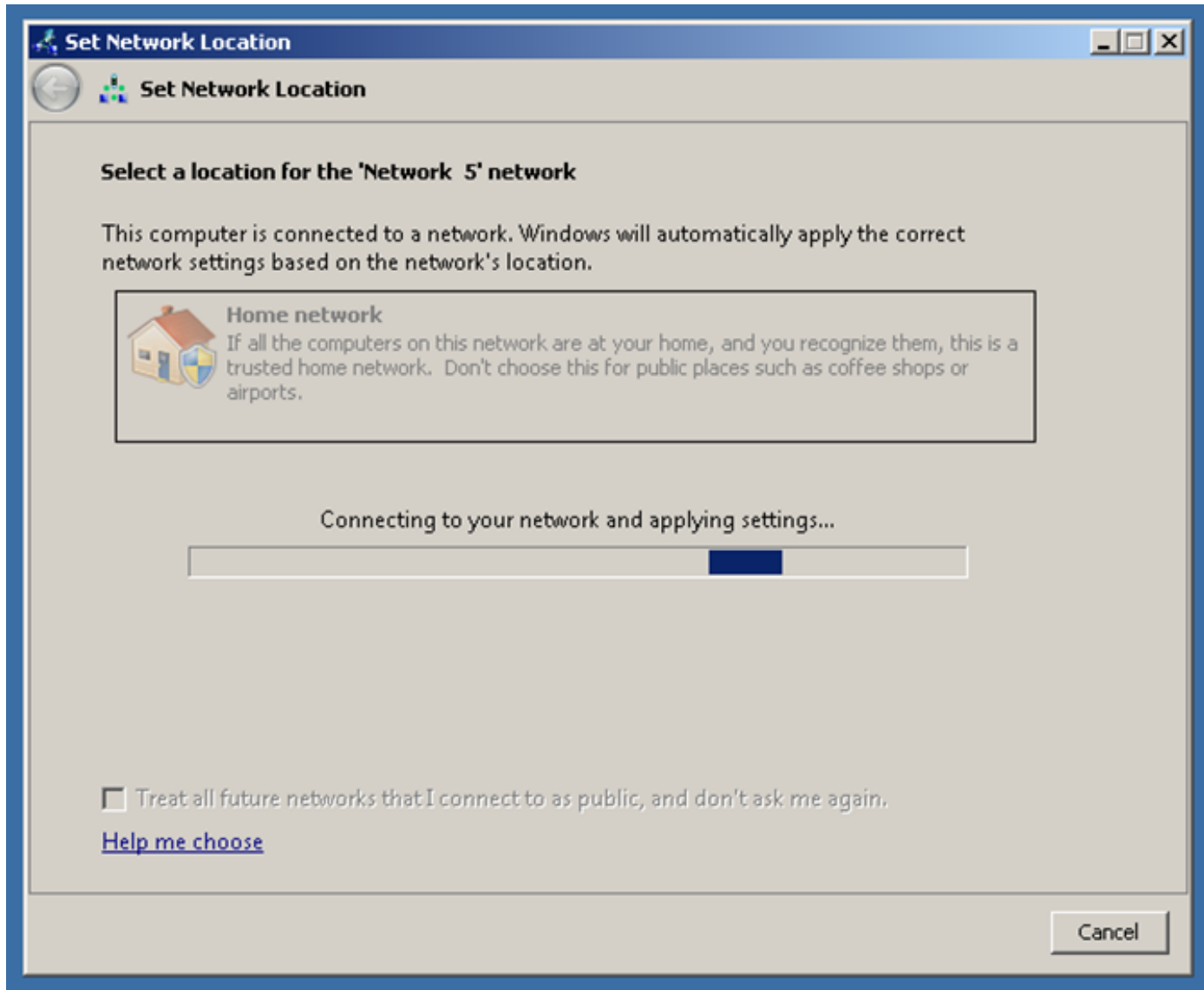
## "WINDOWS 7" SOMETIMES ATTEMPTS TO TRICK YOU INTO CREATING A "HOMEGROUP"

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:

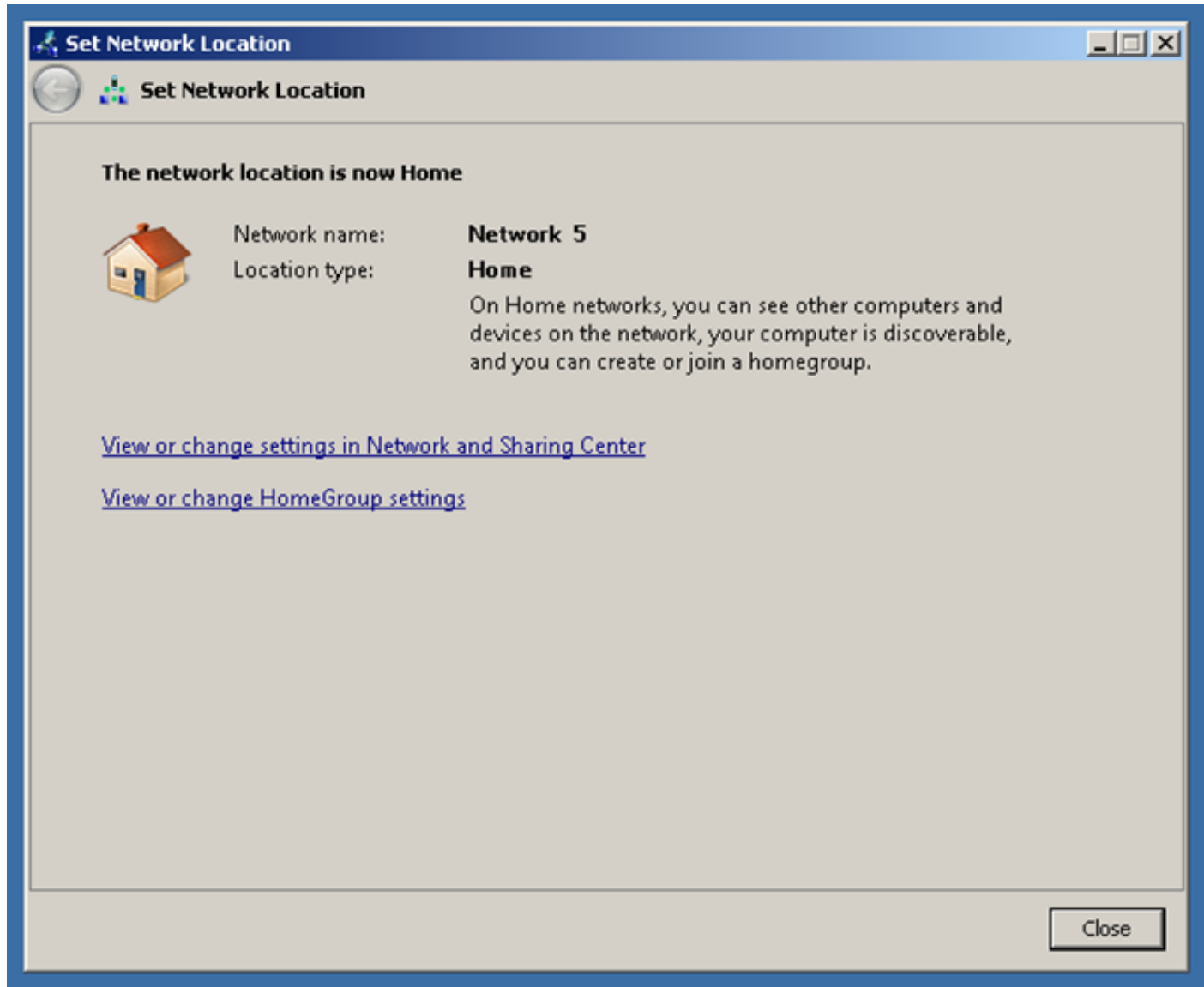
# APPENDIX 1 (continued)



# APPENDIX 1 (continued)



# APPENDIX 1 (continued)



## **APPENDIX 1 (continued)**

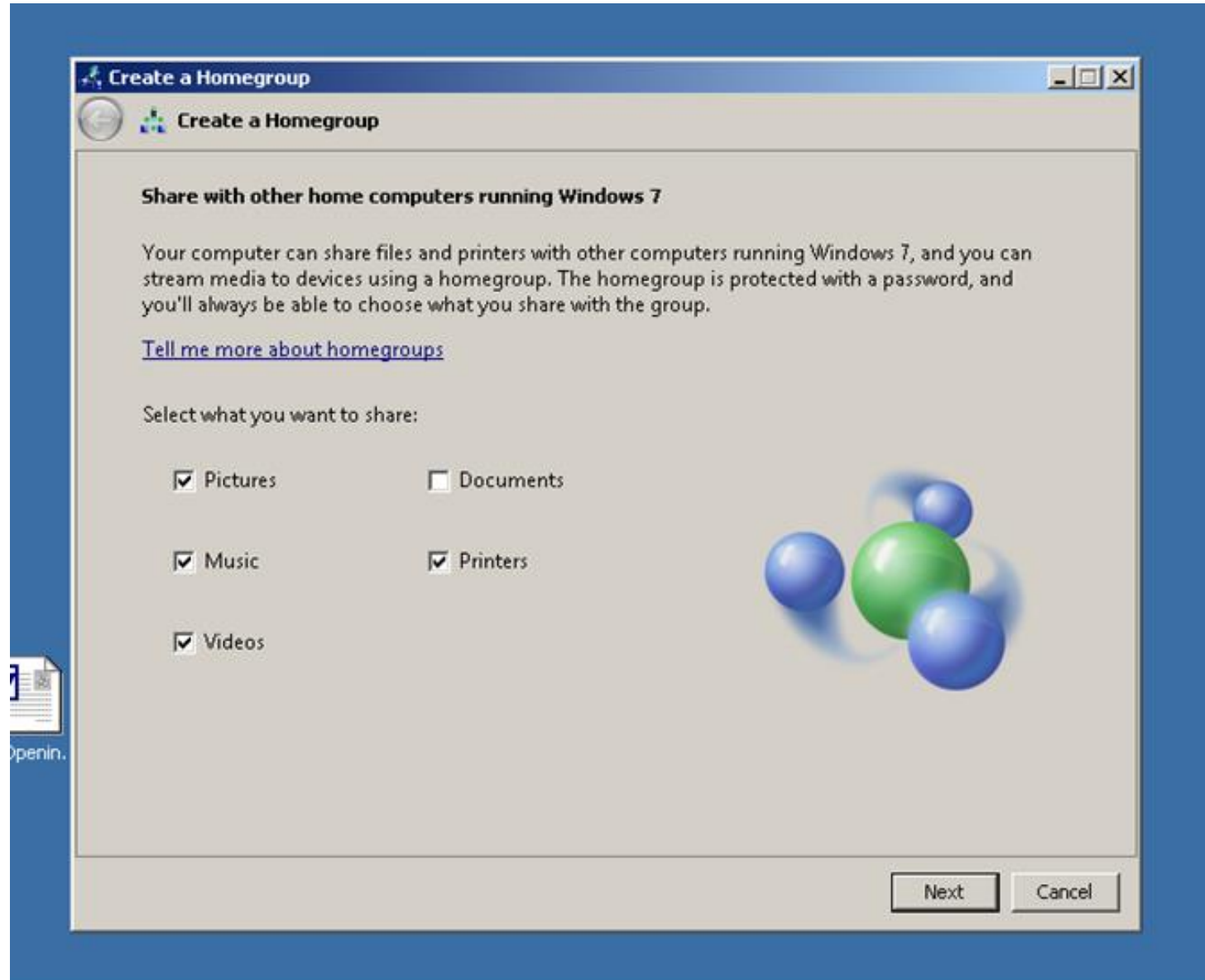
**"WINDOWS 7" SOMETIMES ATTEMPTS  
TO TRICK YOU INTO CREATING A  
"HOMEGROUP"**

**At this point, click on "Cancel":**

**You will cancel the creation of a  
"homegroup".**

**You are not cancelling the creation of  
a network connection:**

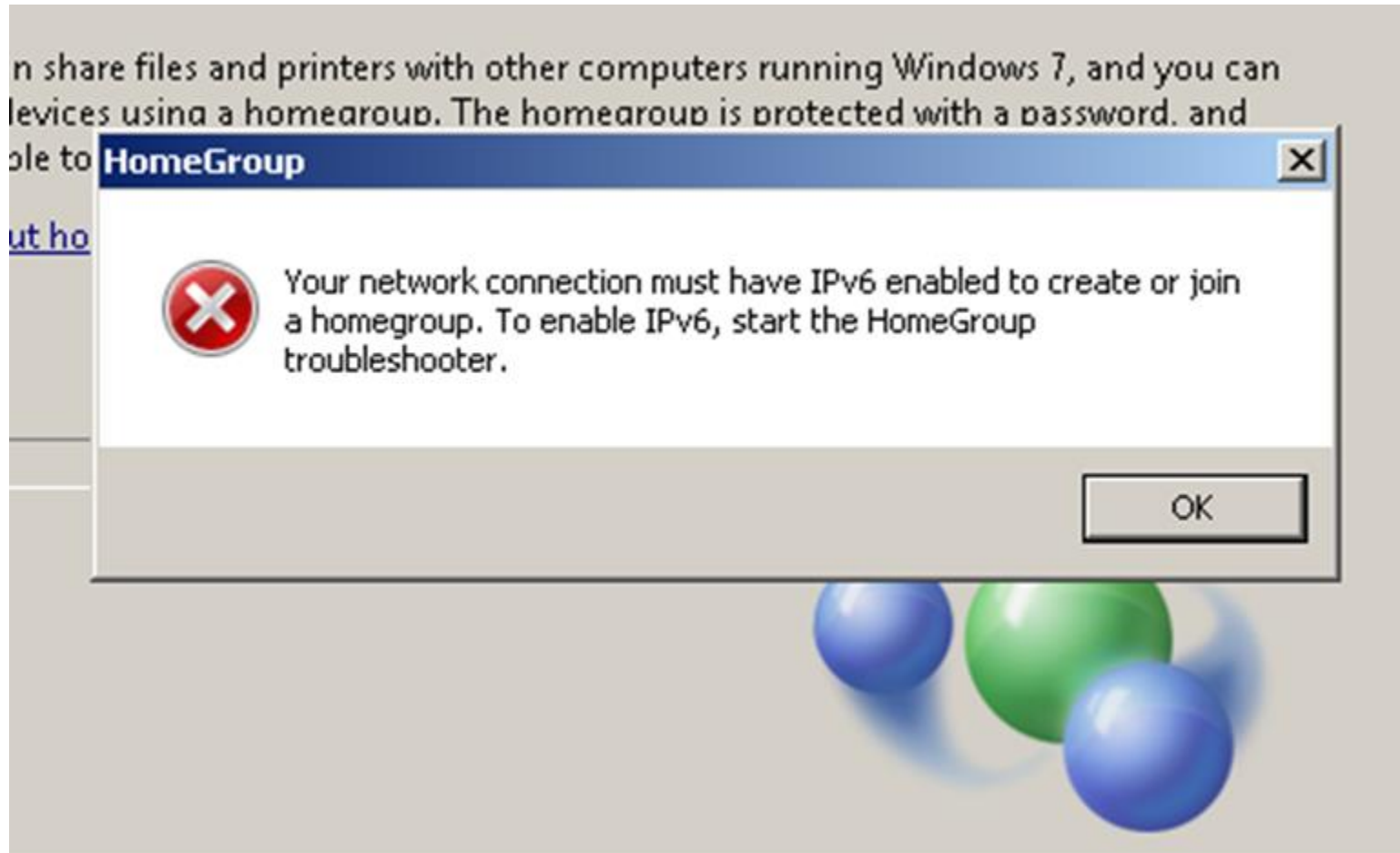
# APPENDIX 1 (continued)





# APPENDIX 1 (continued)

If you have IPv6 turned off for the upstream network adapter of your computer, you will never make a homegroup by mistake:



## APPENDIX 2 :

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

You cannot access a “homegroup” from a “Linux” computer but you can usually access a folder that is shared by “Windows” by means of “classic file sharing”.

# APPENDIX 2 (continued): USING A “LINUX COMPUTER TO ACCESS SHARED FILES/FOLDERS”

## Step 1:

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

## Step 2:

Open a terminal window:

# APPENDIX 2 (continued): USING A “LINUX” COMPUTER TO ACCESS SHARED FILES/FOLDERS

Step 3:

Type

`ipconfig /all`

and press the Enter key.

# APPENDIX 2 (continued): USING A "LINUX" COMPUTER TO ACCESS SHARED FILES/FOLDERS"

```
C:\Windows\system32\cmd.exe

C:\Users\testuser>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    IPv4 Address. . . . . : 10.0.0.43
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.0.0.1

Ethernet adapter VirtualBox Host-Only Network:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::140e:aabd:cc39:7cfc%100
    IPv4 Address. . . . . : 192.168.56.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 

Ethernet adapter VMware Network Adapter VMnet1:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::14c5:58ab:67ca:74e3%101
```

# **APPENDIX 2 (continued):**

## **USING A “LINUX” COMPUTER TO ACCESS SHARED FILES/FOLDERS**

### **Step 4:**

Locate the IP address of the real network adapter and write it down.

In our example, the IP address is

**10.0.0.43**

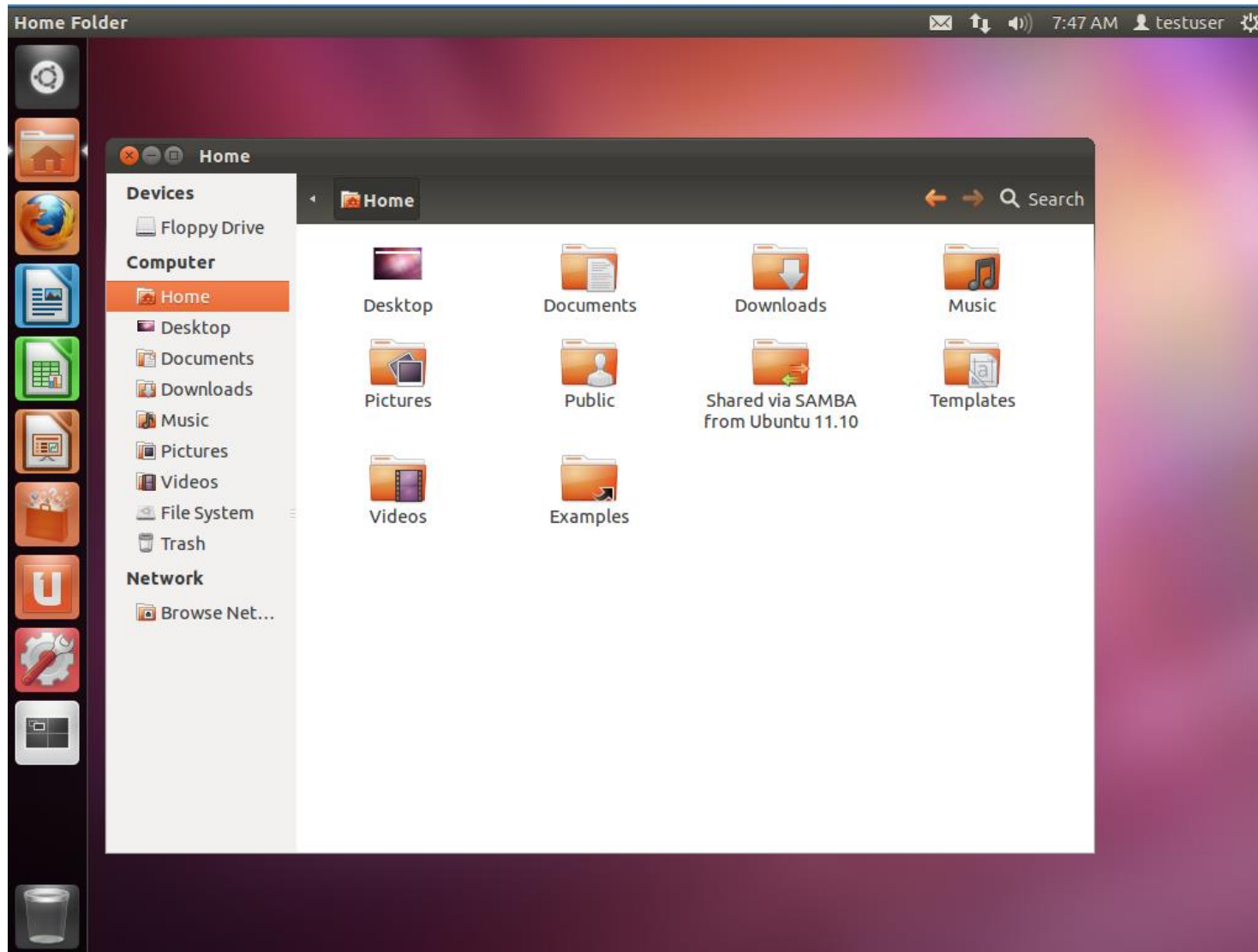
# **APPENDIX 2 (continued): USING A “LINUX” COMPUTER TO ACCESS SHARED FILES/FOLDERS”**

## **Step 5:**

**Go to the Linux computer and open any  
“Nautilus” file management Window  
(such as “Home” or “Network”)**

# APPENDIX 2 (continued):

USING A "LINUX" COMPUTER TO ACCESS SHARED FILES/FOLDERS"





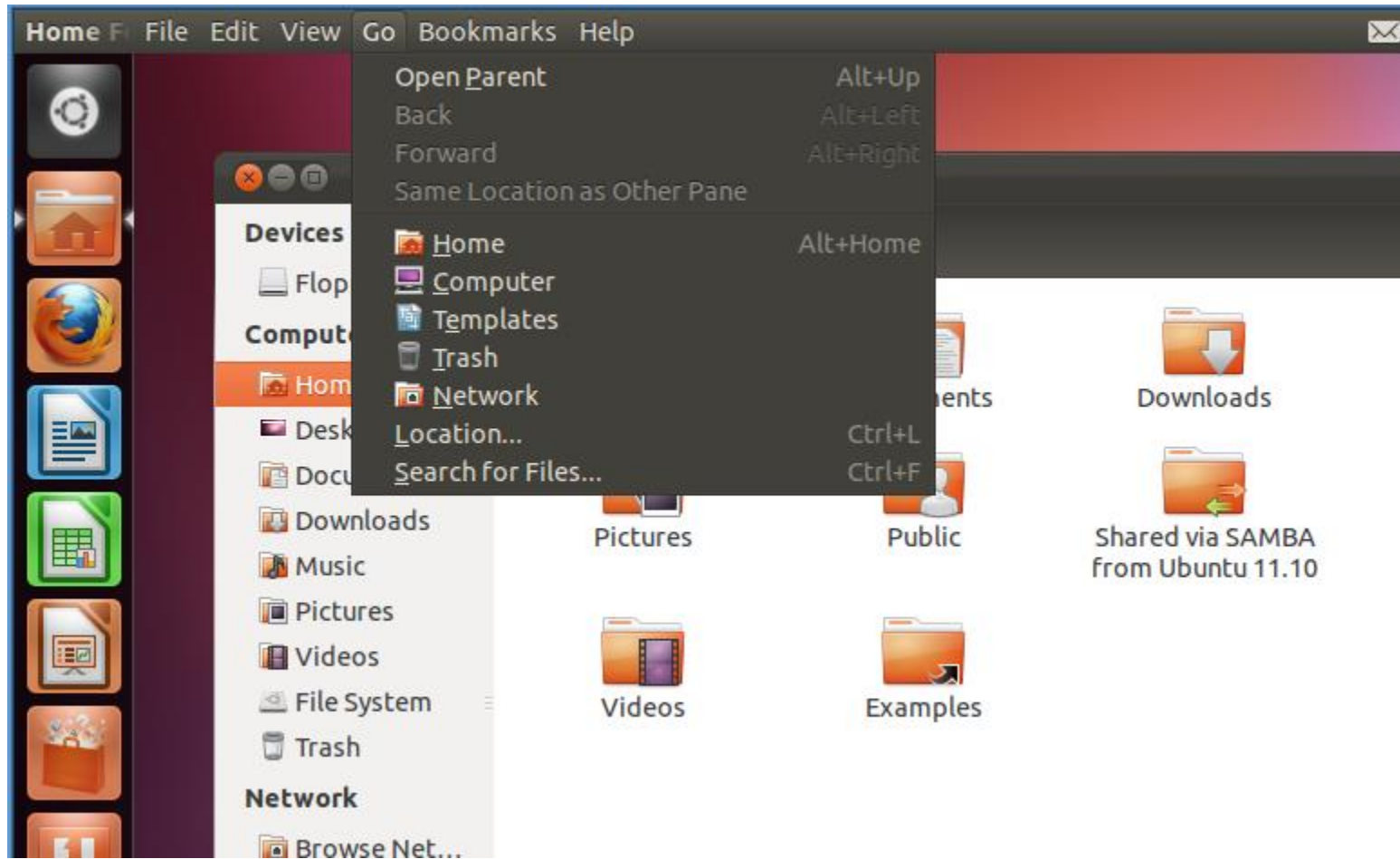
# **APPENDIX 2 (continued): USING A “LINUX” COMPUTER TO ACCESS SHARED FILES/FOLDERS”**

## **Step 6:**

**Hover the mouse cursor over the top of the desktop and click on “Go”.**

# APPENDIX 2 (continued):

USING A “LINUX” COMPUTER TO ACCESS SHARED FILES/FOLDERS



# **APPENDIX 2 (continued): USING A “LINUX” COMPUTER TO ACCESS SHARED FILES/FOLDERS**

**Step 7:**

**Click on “Location” on the drop down  
menu:**

# **APPENDIX 2 (continued): USING A “LINUX” COMPUTER TO ACCESS SHARED FILES/FOLDERS”**

## **Step 8:**

In the address box of the Nautilus window,  
type in

`smb://<ip address of destination>`

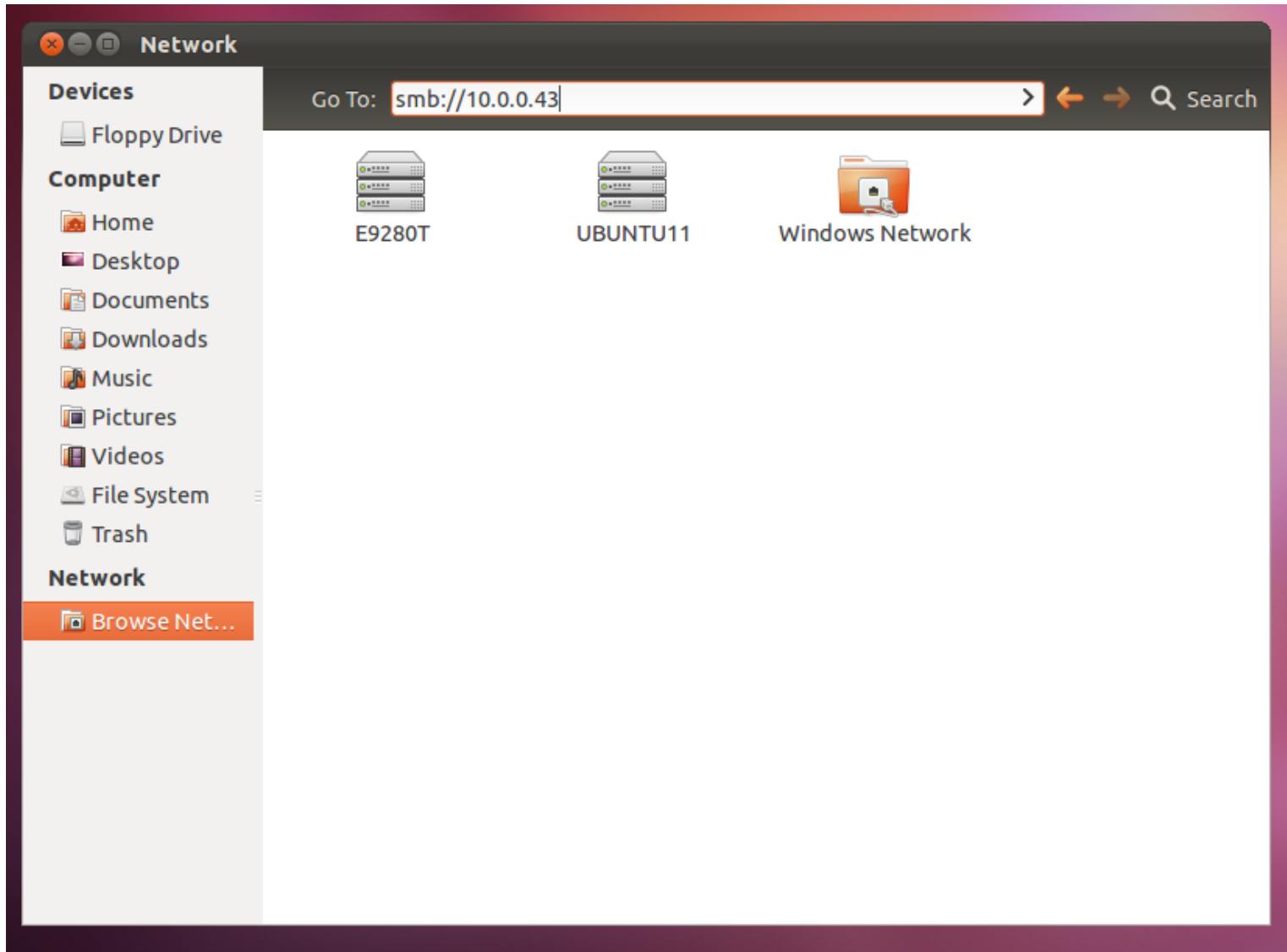
and then press the enter key of the keyboard.

In our example, we typed in

`smb://10.0.0.43`

and then we pressed the enter key:

# APPENDIX 2 (continued):

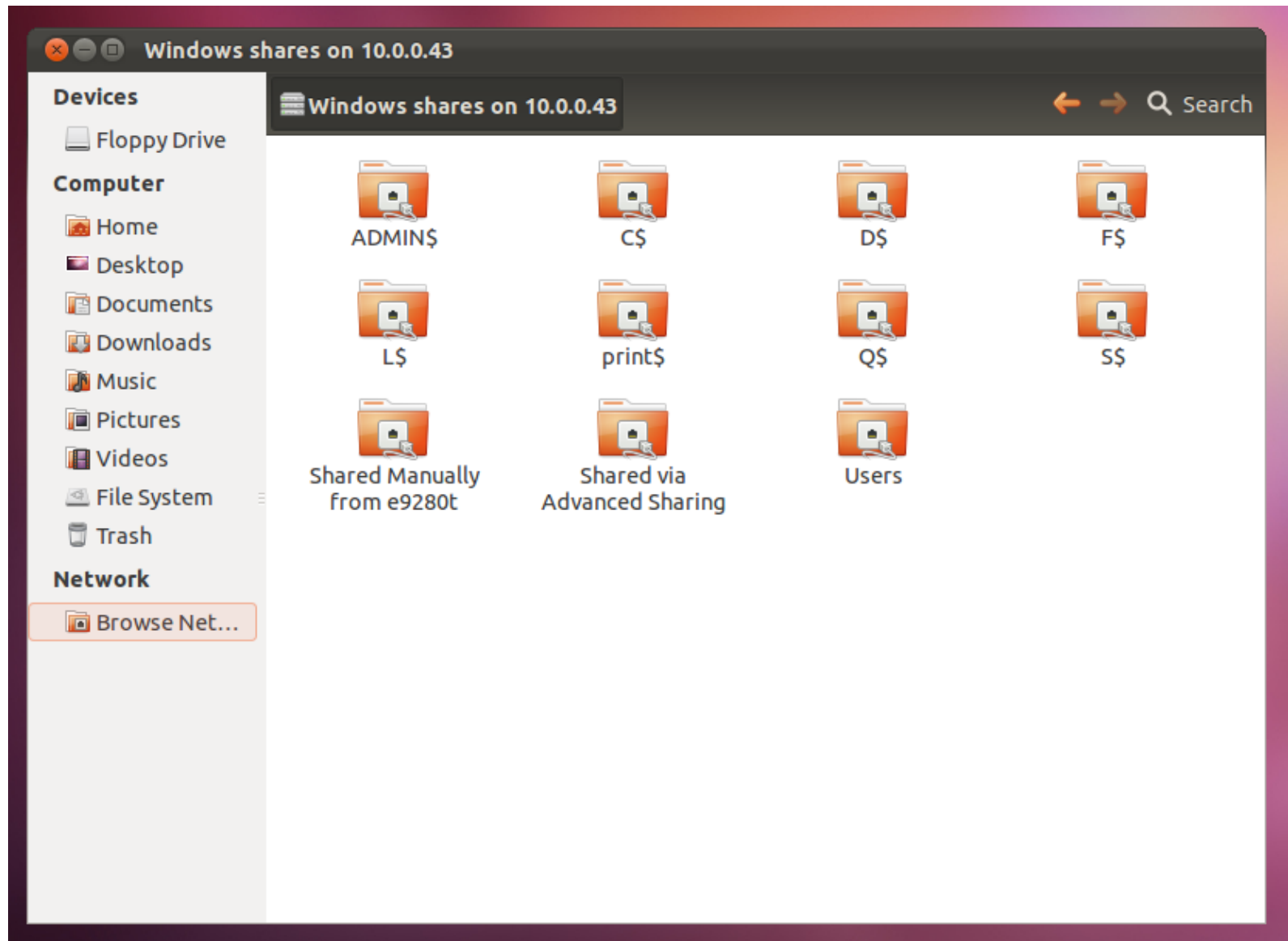


# **APPENDIX 2 (continued): USING A “LINUX” COMPUTER TO ACCESS SHARED FILES/FOLDERS”**

**Step 9:**

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

# APPENDIX 2 (continued):

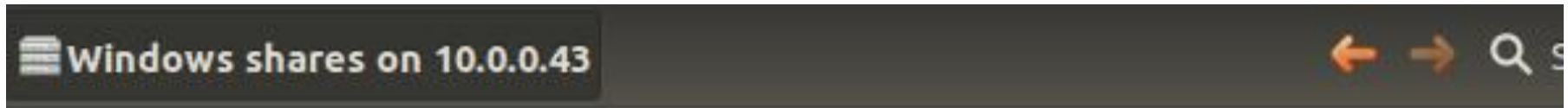


# **APPENDIX 2 (continued): USING A “LINUX” COMPUTER TO ACCESS SHARED FILES/FOLDERS**

Note that in “Ubuntu” Linux the remote files and folders that are shared by a “Windows..” computer via “Samba”(“SMB”) are called “Windows shares”.



# APPENDIX 2 (continued):



ADMIN\$



C\$



D\$



F\$



L\$



print\$



Q\$



S\$



Shared Manually  
from e9280t



Shared via  
Advanced Sharing



Users

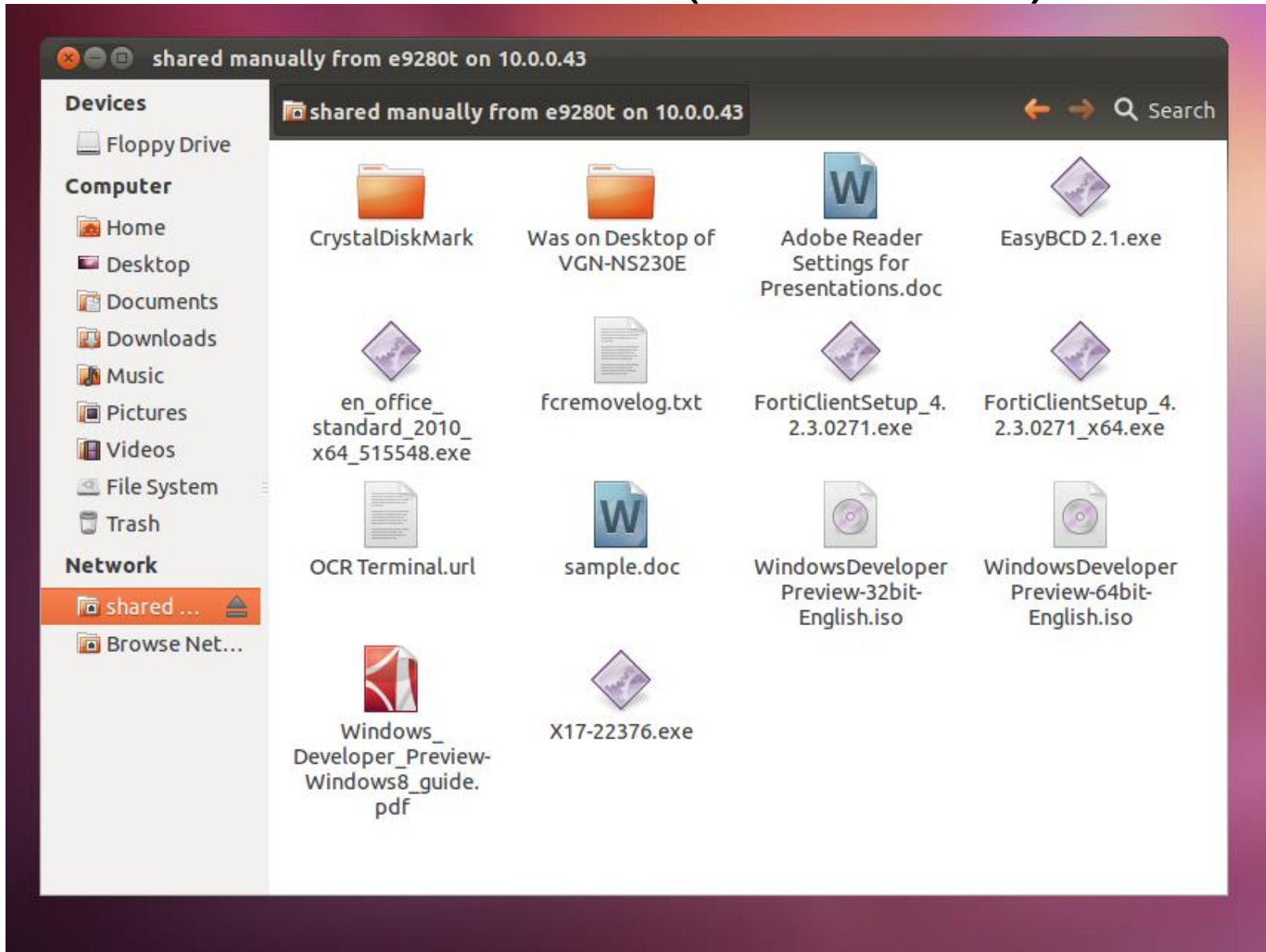
# **APPENDIX 2 (continued):**

## **USING A “LINUX” COMPUTER TO ACCESS SHARED FILES/FOLDERS**

Do not modify any of the shared folders that have a name that ends in \$ since these folders belong to the “Windows” operating system.

If you double-click on a shared folder, you will see it's contents:

# APPENDIX 2 (continued):



# APPENDIX 3 :

## 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":

## APPENDIX 3 (continued)

### TROUBLESHOOTING "WINDOWS FIREWALL"..(continued)

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