IT Essentials 5.0

10.3.1.9 Lab - Configure a Windows Vista Firewall

Print and complete this lab.

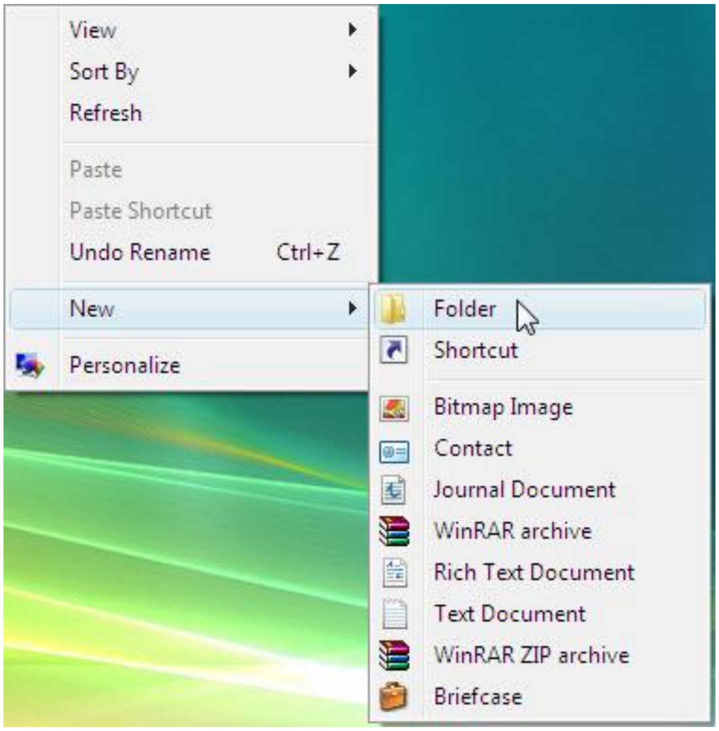
In this lab, you will explore the Windows Vista Firewall and configure some advanced settings.

Recommended Equipment

- Two computers directly connected or connected through a hub or switch
- Windows Vista installed on both computers
- Computers are in the same workgroup and share the same subnet mask

Step 1

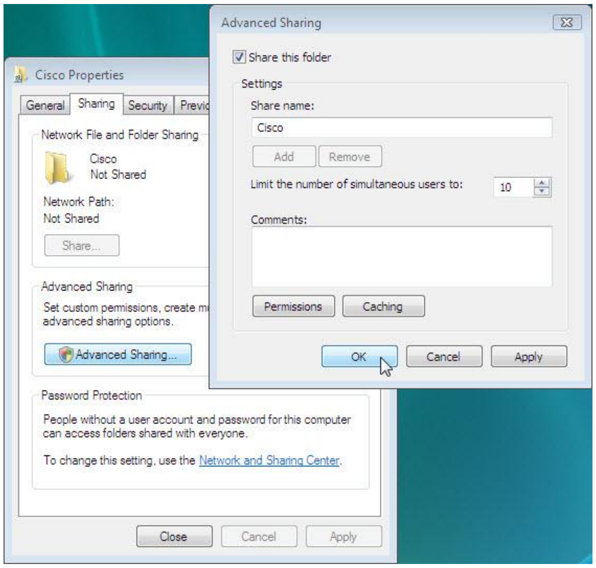
For computer 1, right-click on the desktop, select **New > Folder**.



Name the folder Cisco.

Right-click on the Cisco folder then select **Share > Continue**.

The “Advanced Sharing” window opens.



☑ Share this folder

Share name: Cisco

Limit the number of simultaneous users to: 10

Cisco
Not Shared

Network Path:
Not Shared

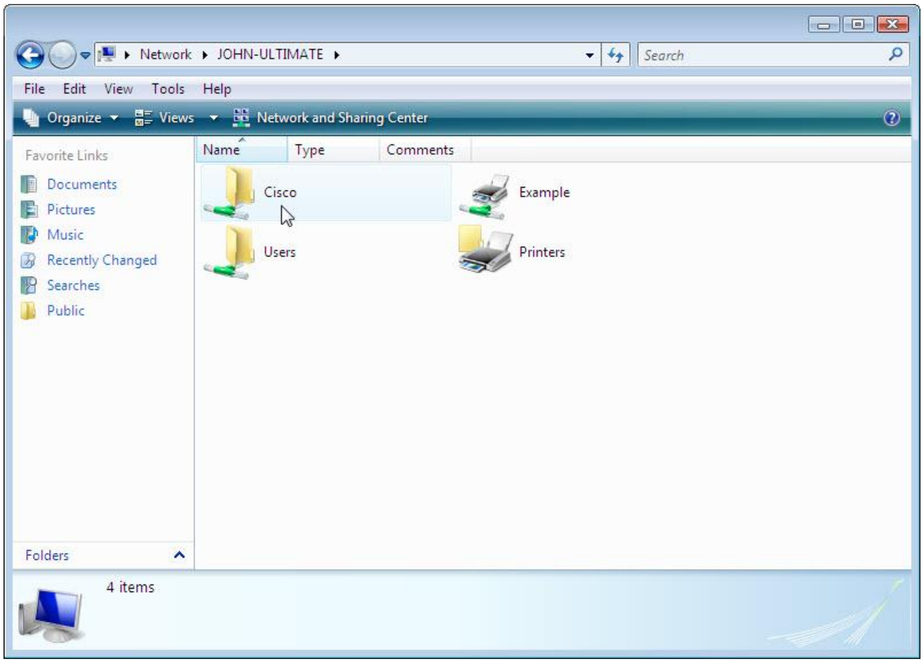
Set custom permissions, create m advanced sharing options.

People without a user account and password for this computer can access folders shared with everyone.

To change this setting, use the Network and Sharing Center.

Share the folder, use the default name **Cisco**.

From computer 2 click **Start > Control Panel > Network and Sharing Center > Network** icon (icon with the network name you are connected to).



Double click **computer 1**.

Can you see the shared folder Cisco?

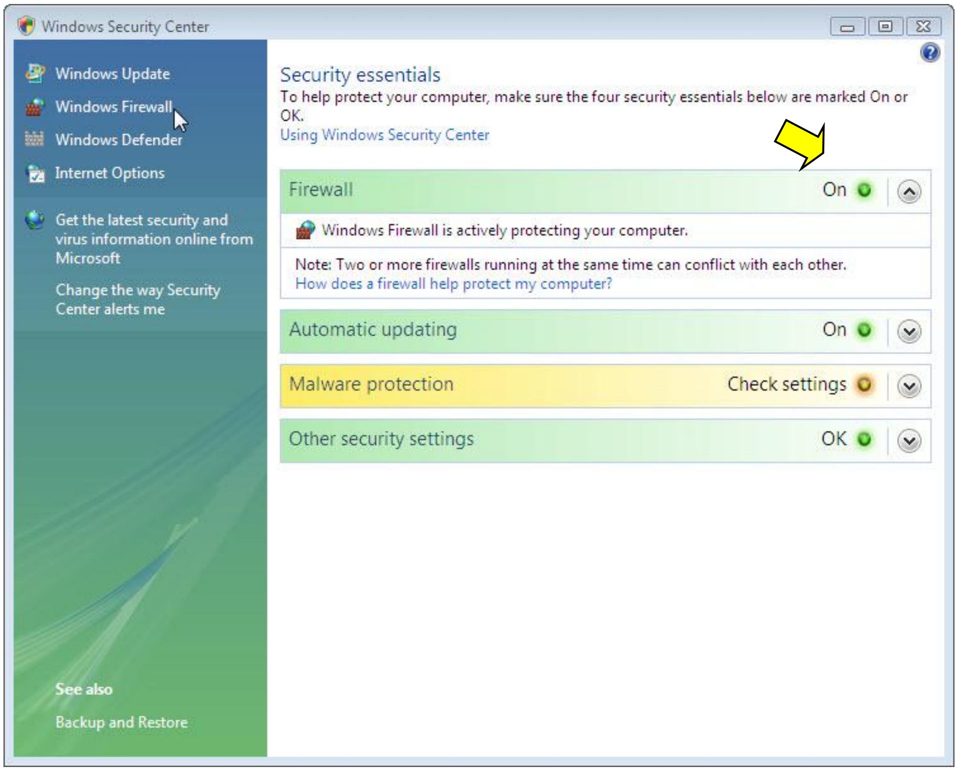
Note: If you answered no, ask the instructor for help.

Close **Network**.

Note: Use computer 1 for the rest of the lab unless otherwise stated.

Step 2

Navigate to the Windows Vista Firewall.



Security essentials

To help protect your computer, make sure the four security essentials below are marked On or OK.

Using Windows Security Center

Firewall On

Windows Firewall is actively protecting your computer.

Note: Two or more firewalls running at the same time can conflict with each other.

How does a firewall help protect my computer?

Automatic updating On

Malware protection Check settings

Other security settings OK

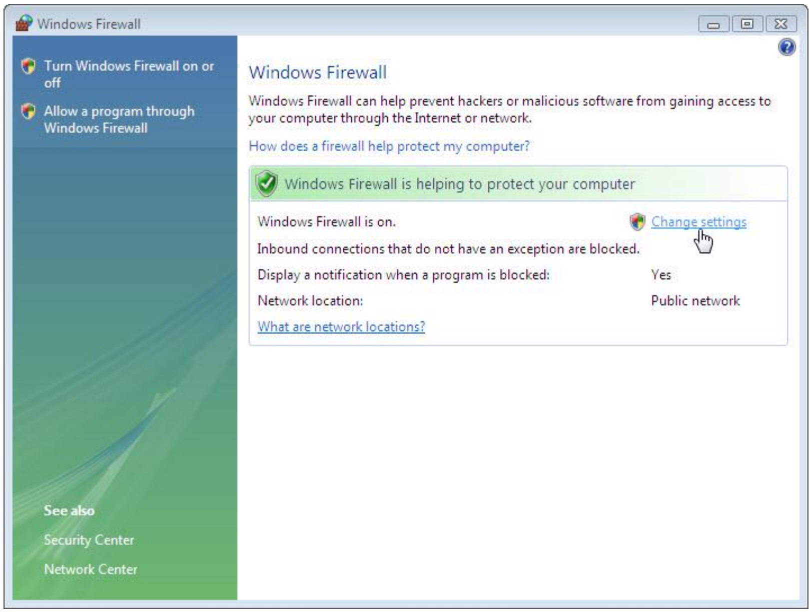
Click **Start > Control Panel > Security Center**.

The Firewall indicator shows the status of the firewall. The normal setting is “**On**”.

Access Windows Firewall by clicking **Firewall** at the right side of the window.

Step 3

The “Windows Firewall” window opens.


Windows Firewall
Turn Windows Firewall on or off
Allow a program through Windows Firewall
See also
Security Center
Network Center

Windows Firewall

Windows Firewall can help prevent hackers or malicious software from gaining access to your computer through the Internet or network.

How does a firewall help protect my computer?

Windows Firewall is helping to protect your computer

Windows Firewall is on. Change settings

Inbound connections that do not have an exception are blocked.

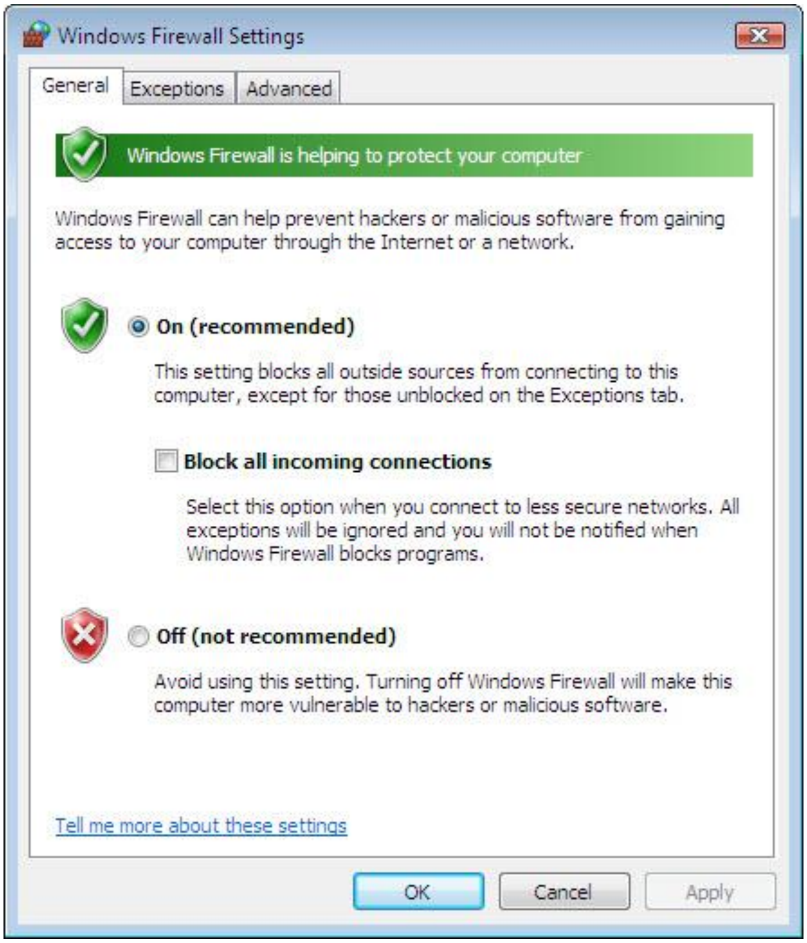
Display a notification when a program is blocked: Yes

Network location: Public network

What are network locations?

Click **Change settings > Continue**.

The “Windows Firewall Settings” window opens.



Windows Firewall is helping to protect your computer

Windows Firewall can help prevent hackers or malicious software from gaining access to your computer through the Internet or a network.

● **On (recommended)**

This setting blocks all outside sources from connecting to this computer, except for those unblocked on the Exceptions tab.

□ **Block all incoming connections**

Select this option when you connect to less secure networks. All exceptions will be ignored and you will not be notified when Windows Firewall blocks programs.

○ **Off (not recommended)**

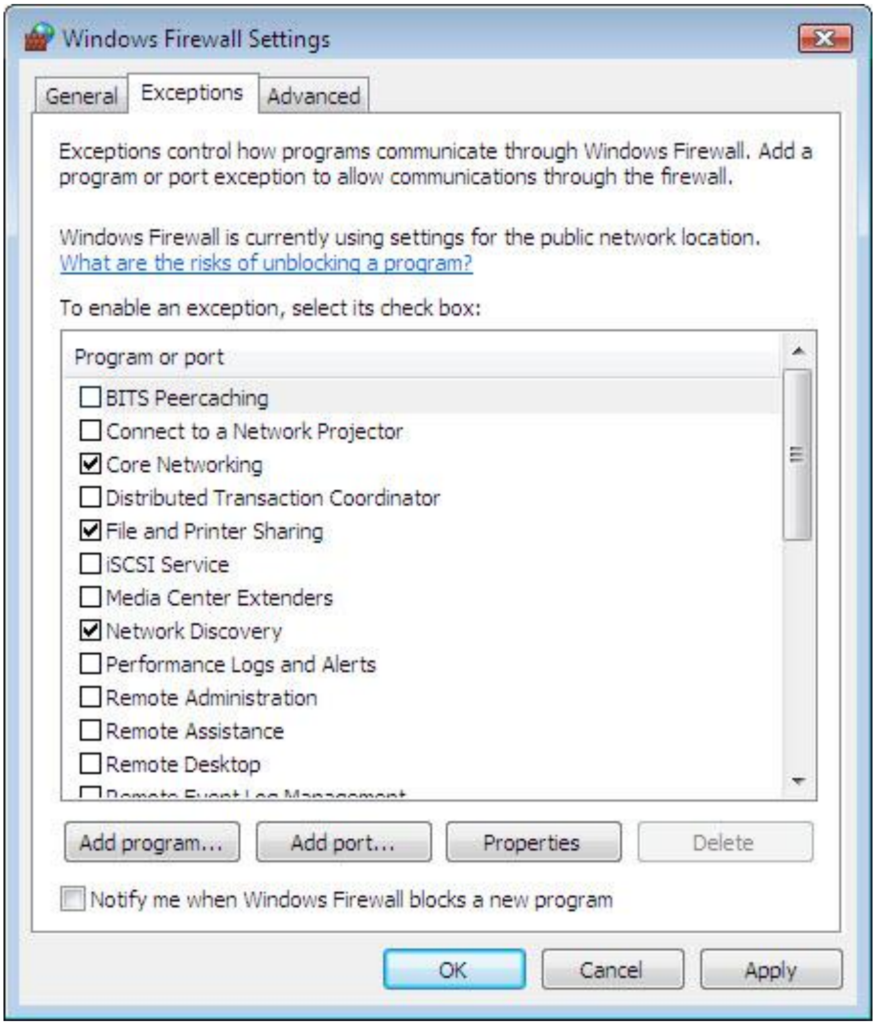
Avoid using this setting. Turning off Windows Firewall will make this computer more vulnerable to hackers or malicious software.

Tell me more about these settings

In the space below, state why turning off the Windows Firewall is not advised.

Step 4

From the Windows Firewall Settings window, select the **Exceptions** tab.



Exceptions control how programs communicate through Windows Firewall. Add a program or port exception to allow communications through the firewall.

Windows Firewall is currently using settings for the public network location.
What are the risks of unblocking a program?

To enable an exception, select its check box:

Program or port

- ☐ BITS Peercaching
- ☐ Connect to a Network Projector
- ☑ Core Networking
- ☐ Distributed Transaction Coordinator
- ☑ File and Printer Sharing
- ☐ iSCSI Service
- ☐ Media Center Extenders
- ☑ Network Discovery
- ☐ Performance Logs and Alerts
- ☐ Remote Administration
- ☐ Remote Assistance
- ☐ Remote Desktop
- ☐ Remote Event Log Management

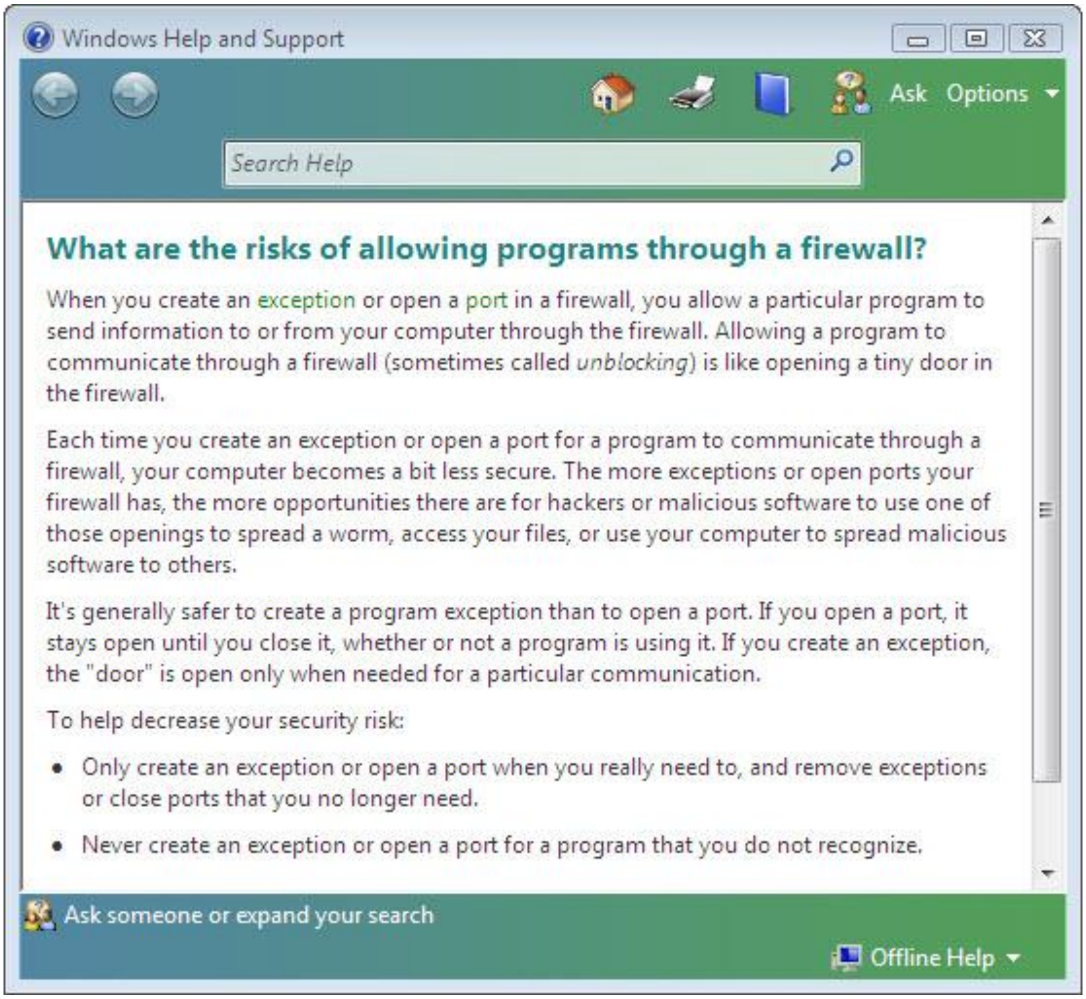
☐ Notify me when Windows Firewall blocks a new program

Programs and services that Windows Firewall is not blocking will be listed with a checkmark.

You can add applications to this list. This may be necessary if your customer has an application that requires outside communications but for some reason the Windows Firewall cannot perform the configuration automatically. You must be logged on to this computer as an administrator to complete this procedure.

Click **What are the risks of unblocking a program?**.

The “Window Help and Support” window opens.



What are the risks of allowing programs through a firewall?

When you create an exception or open a port in a firewall, you allow a particular program to send information to or from your computer through the firewall. Allowing a program to communicate through a firewall (sometimes called *unblocking*) is like opening a tiny door in the firewall.

Each time you create an exception or open a port for a program to communicate through a firewall, your computer becomes a bit less secure. The more exceptions or open ports your firewall has, the more opportunities there are for hackers or malicious software to use one of those openings to spread a worm, access your files, or use your computer to spread malicious software to others.

It's generally safer to create a program exception than to open a port. If you open a port, it stays open until you close it, whether or not a program is using it. If you create an exception, the "door" is open only when needed for a particular communication.

To help decrease your security risk:

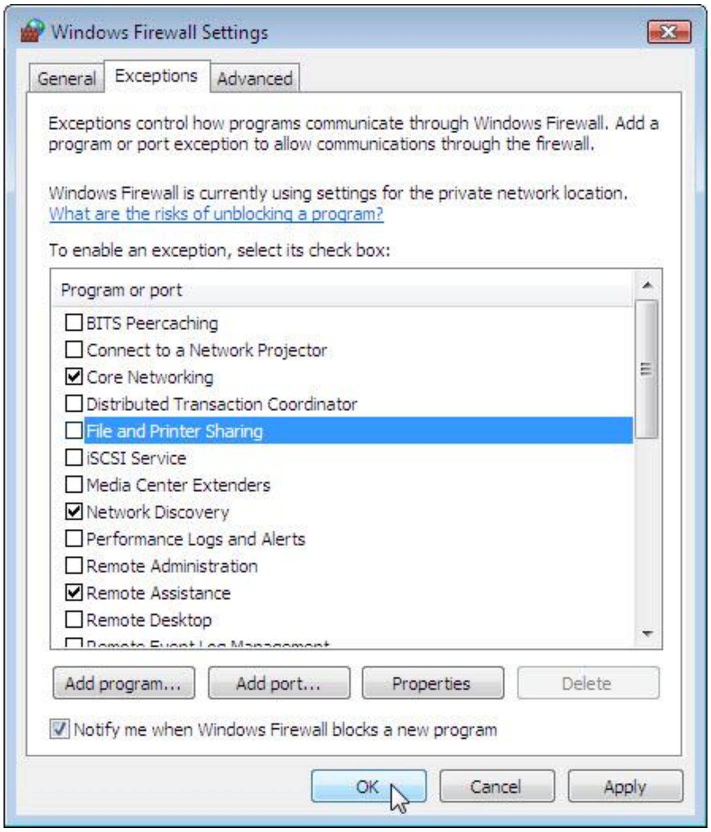
- Only create an exception or open a port when you really need to, and remove exceptions or close ports that you no longer need.
- Never create an exception or open a port for a program that you do not recognize.

Creating too many exceptions in your Programs and Services file can have negative consequences. Describe a negative consequence to having too many exceptions.

Close the Windows Help and Support window.

Step 5

From computer 1:



Exceptions control how programs communicate through Windows Firewall. Add a program or port exception to allow communications through the firewall.

Windows Firewall is currently using settings for the private network location.
What are the risks of unblocking a program?

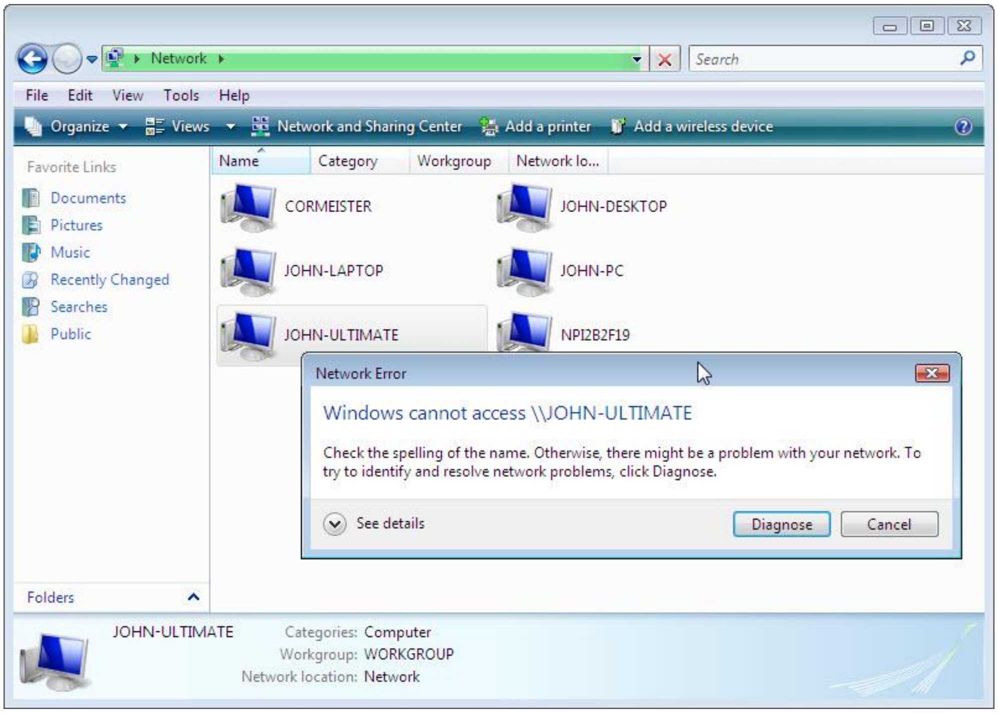
To enable an exception, select its check box:

- ☐ BITS Peercaching
- ☐ Connect to a Network Projector
- ☑ Core Networking
- ☐ Distributed Transaction Coordinator
- ☐ File and Printer Sharing
- ☐ iSCSI Service
- ☐ Media Center Extenders
- ☑ Network Discovery
- ☐ Performance Logs and Alerts
- ☐ Remote Administration
- ☑ Remote Assistance
- ☐ Remote Desktop
- ☐ Remote Event Log Management

☑ Notify me when Windows Firewall blocks a new program

To turn off an exception, remove the check mark from **File and Printer Sharing > OK**.

From computer 2:



Windows cannot access \\JOHN-ULTIMATE

Check the spelling of the name. Otherwise, there might be a problem with your network. To try to identify and resolve network problems, click Diagnose.

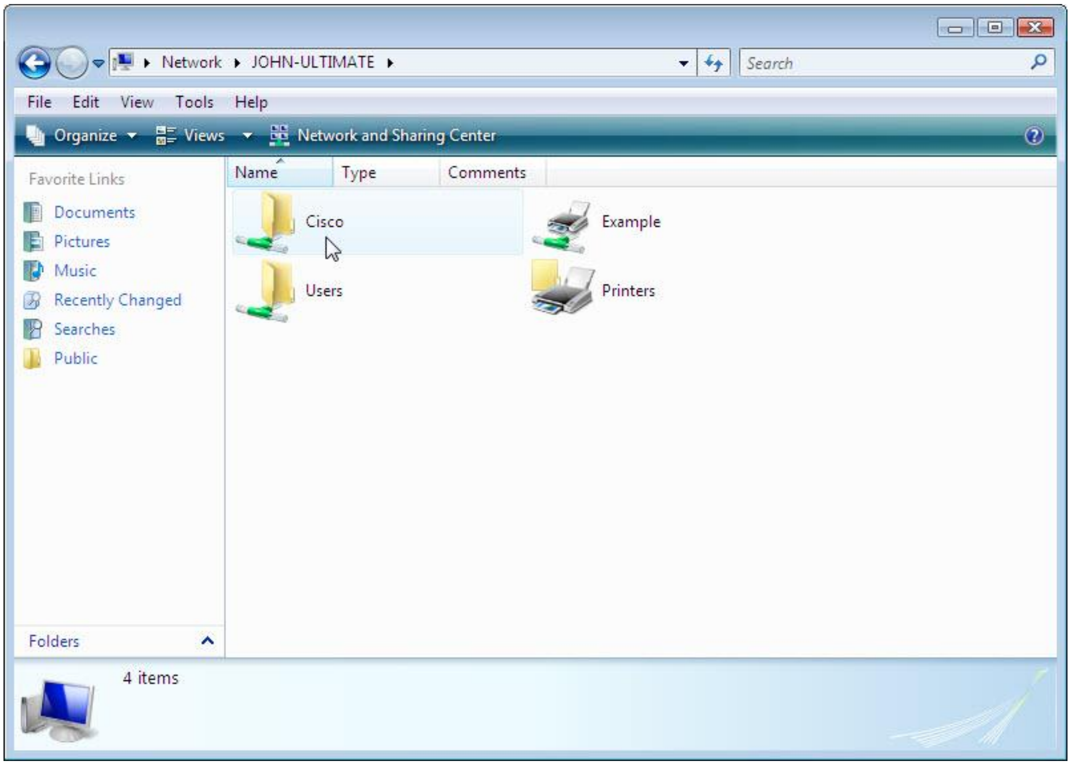
JOHN-ULTIMATE
Categories: Computer
Workgroup: WORKGROUP
Network location: Network

Click **Start > Control Panel > Network and Sharing Center > Network** icon (icon with the network name you are connected to) and connect to computer 1.

Can you connect to computer 1?

From computer 1:
To turn on an exception add a check mark to **File and Printer Sharing > OK**.

From computer 2:
Refresh **Network** screen and connect to computer 1.

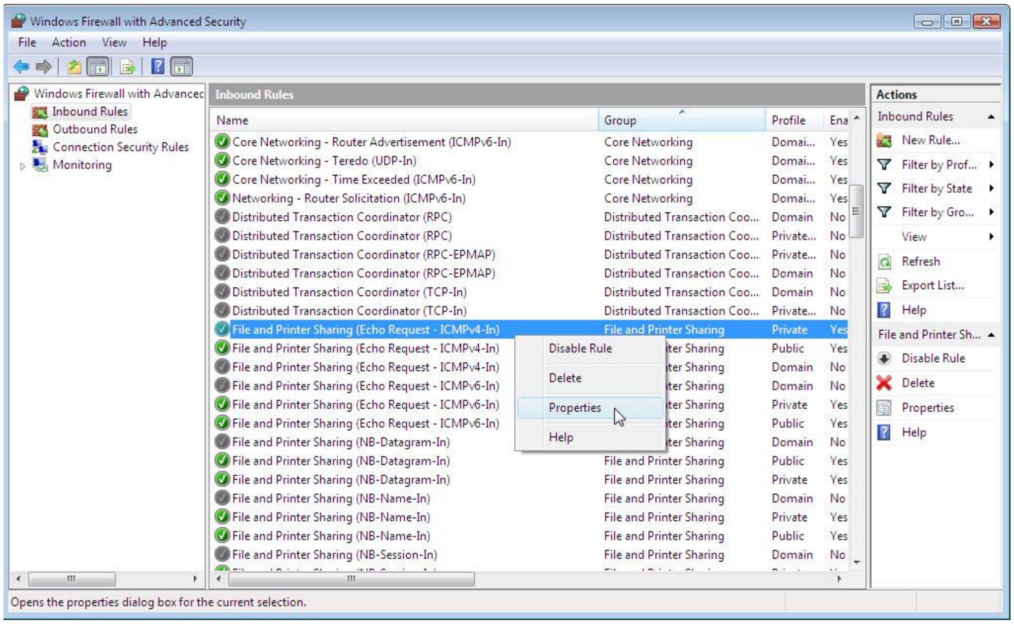


Can you connect to computer 1?

Log off computer 2. Use computer 1 for the rest of the lab.

Step 6

Click **Start > Control Panel > Administrative Tools > Windows Firewall with Advanced Security > Continue > Inbound Rules**.

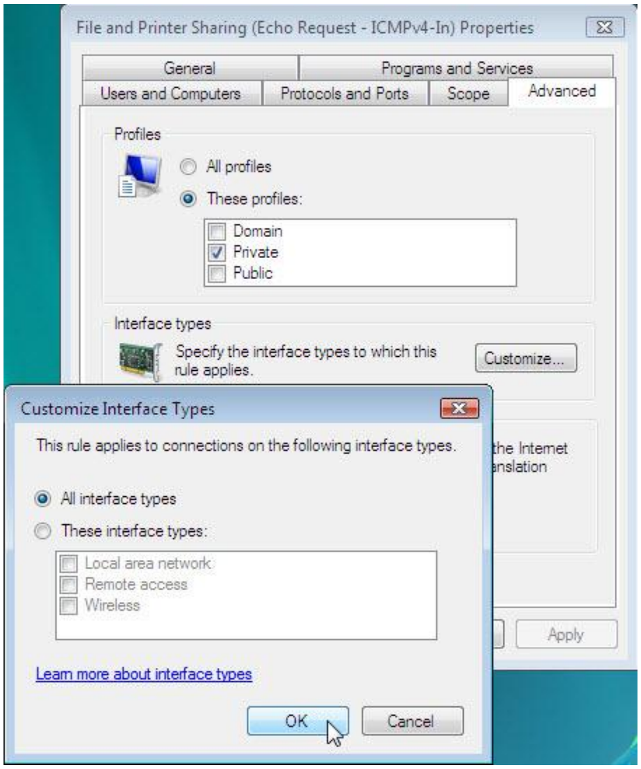


Inbound Rules

Name	Group	Profile	Ena
Core Networking - Router Advertisement (ICMPv6-In)	Core Networking	Domai...	Yes
Core Networking - Teredo (UDP-In)	Core Networking	Domai...	Yes
Core Networking - Time Exceeded (ICMPv6-In)	Core Networking	Domai...	Yes
Networking - Router Solicitation (ICMPv6-In)	Core Networking	Domai...	Yes
Distributed Transaction Coordinator (RPC)	Distributed Transaction Coo...	Domain	No
Distributed Transaction Coordinator (RPC)	Distributed Transaction Coo...	Private...	No
Distributed Transaction Coordinator (RPC-EPMAP)	Distributed Transaction Coo...	Private...	No
Distributed Transaction Coordinator (RPC-EPMAP)	Distributed Transaction Coo...	Domain	No
Distributed Transaction Coordinator (TCP-In)	Distributed Transaction Coo...	Domain	No
Distributed Transaction Coordinator (TCP-In)	Distributed Transaction Coo...	Private...	No
File and Printer Sharing (Echo Request - ICMPv4-In)	File and Printer Sharing	Private	Yes
File and Printer Sharing (Echo Request - ICMPv4-In)	ter Sharing	Public	Yes
File and Printer Sharing (Echo Request - ICMPv4-In)	ter Sharing	Domain	No
File and Printer Sharing (Echo Request - ICMPv6-In)	ter Sharing	Domain	No
File and Printer Sharing (Echo Request - ICMPv6-In)	ter Sharing	Private	Yes
File and Printer Sharing (Echo Request - ICMPv6-In)	ter Sharing	Public	Yes
File and Printer Sharing (NB-Datagram-In)	ter Sharing	Domain	No
File and Printer Sharing (NB-Datagram-In)	File and Printer Sharing	Public	Yes
File and Printer Sharing (NB-Datagram-In)	File and Printer Sharing	Private	Yes
File and Printer Sharing (NB-Name-In)	File and Printer Sharing	Domain	No
File and Printer Sharing (NB-Name-In)	File and Printer Sharing	Private	Yes
File and Printer Sharing (NB-Name-In)	File and Printer Sharing	Public	Yes
File and Printer Sharing (NB-Session-In)	File and Printer Sharing	Domain	No

Expand the window so you can see the full name of the Inbound rules. Locate Files and Printer Sharing (Echo Request – ICMPv4-In).

Right-click on the rule and select **Properties > Advanced** tab **> Customize**. The Advanced tab displays the profile(s) used by the computer and the “Customize Interface Types” window displays the different connections configured for your computer.


File and Printer Sharing (Echo Request - ICMPv4-In) Properties
General
Programs and Services
Users and Computers
Protocols and Ports
Scope
Advanced
Customize...
Apply
Customize Interface Types
OK
Cancel
Learn more about interface types

Profiles

○ All profiles
● These profiles:
☐ Domain
☑ Private
☐ Public

Interface types

Specify the interface types to which this rule applies.

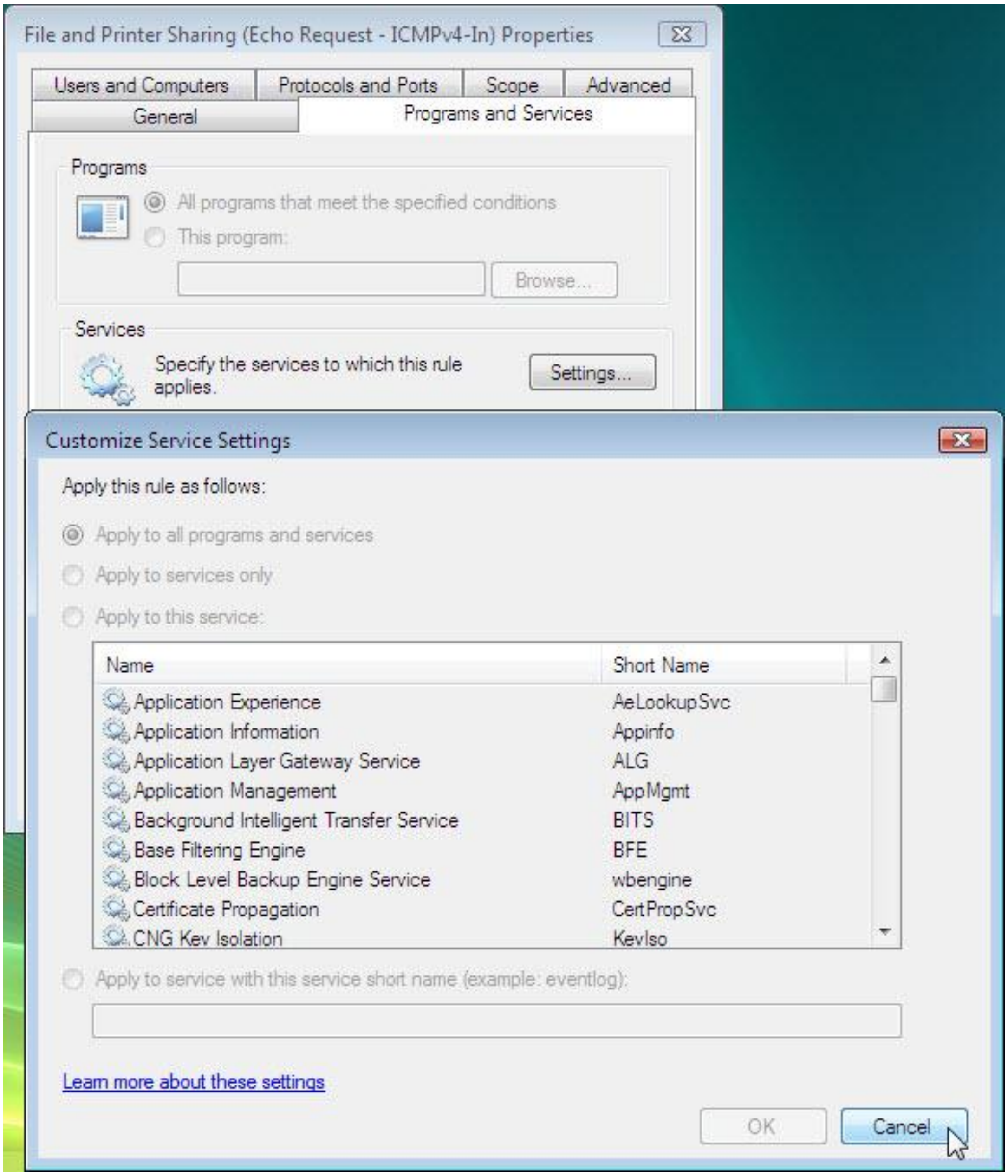
This rule applies to connections on the following interface types.

● All interface types
○ These interface types:
☐ Local area network
☐ Remote access
☐ Wireless

Click **OK**.

Click **Programs and Services** tab.

The “Customize Service Settings” window opens.



● All programs that meet the specified conditions

○ This program:

Specify the services to which this rule applies.

Apply this rule as follows:

● Apply to all programs and services

○ Apply to services only

○ Apply to this service:

Name	Short Name
Application Experience	AeLookupSvc
Application Information	Appinfo
Application Layer Gateway Service	ALG
Application Management	AppMgmt
Background Intelligent Transfer Service	BITS
Base Filtering Engine	BFE
Block Level Backup Engine Service	wbengine
Certificate Propagation	CertPropSvc
CNG Key Isolation	KeyIso

○ Apply to service with this service short name (example: eventlog):

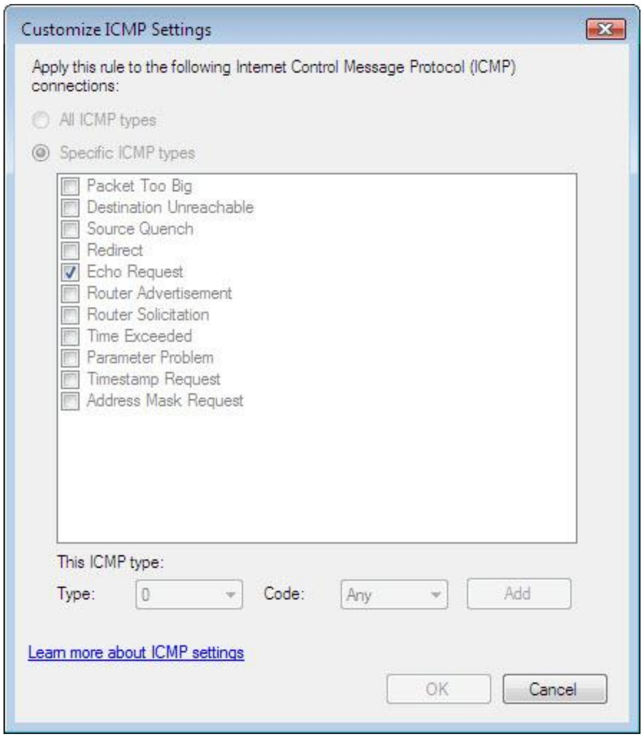
In the space below, list the short name of four services that are available.

Click **Cancel**.

Step 7

There are many applications that users do not normally see that also need to get through the Windows Firewall to access your computer. These are the network level commands that direct traffic on the network and the Internet.

Click **Protocols and Ports** tab. For the ICMP settings, click the **Customize** button. You will see the menu where ICMP exceptions are configured.



Customize ICMP Settings

Apply this rule to the following Internet Control Message Protocol (ICMP) connections:

○ All ICMP types

● Specific ICMP types

- □ Packet Too Big
- □ Destination Unreachable
- □ Source Quench
- □ Redirect
- ☑ Echo Request
- □ Router Advertisement
- □ Router Solicitation
- □ Time Exceeded
- □ Parameter Problem
- □ Timestamp Request
- □ Address Mask Request

This ICMP type:

Type: 0 Code: Any

In the example here, allowing incoming echo requests is what allows network users to ping your computer to determine if it is present on the network. It also allows you to see how fast information travels to and from your computer.

In the space below, list the requests for information that your computer will respond to.

Close all windows.