

IT Essentials 5.0

6.8.3.15 Lab - Test the Wireless NIC in Windows Vista

Introduction

Print and complete this lab.

In this lab, you will check the status of your wireless connection, investigate the availability of wireless networks, and test connectivity.

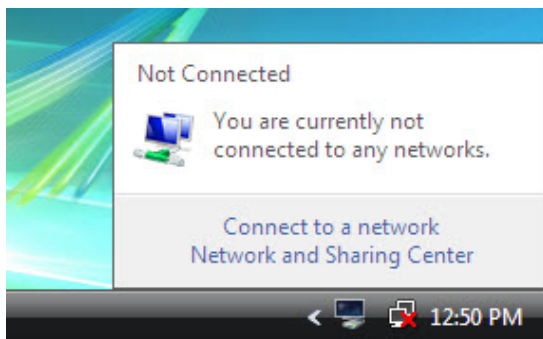
Recommended Equipment

- A computer with Windows Vista installed
- A wireless NIC installed
- An Ethernet NIC installed
- Linksys E2500 Wireless Router
- Internet connectivity

Step 1

Disconnect the Ethernet cable from your computer.

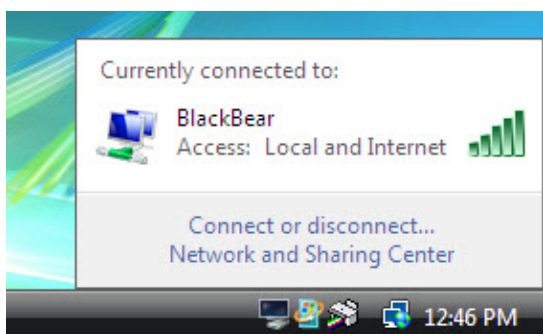
A red "X" appears over the "Local Area Connection" icon.



Connect to a wireless network.

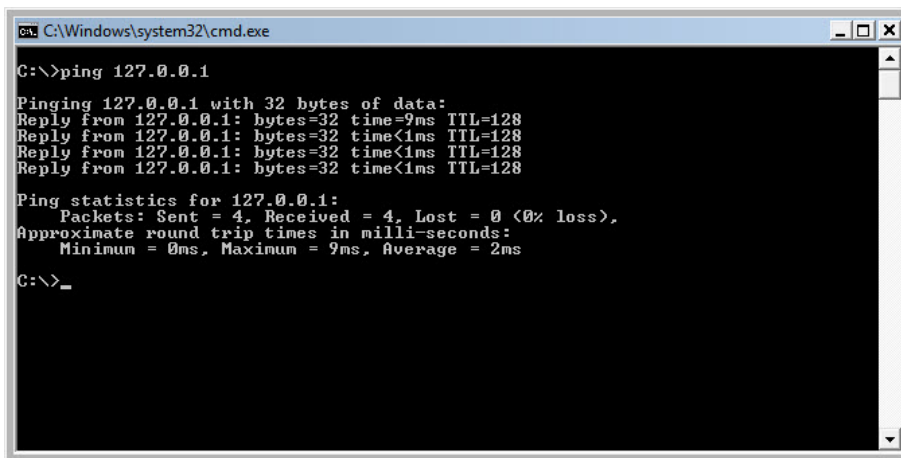
Hover over the "Wireless Network Connection" icon in the tray.

What is the name of the wireless connection?



Open a command window.

Ping 127.0.0.1.



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

C:\>ping 127.0.0.1

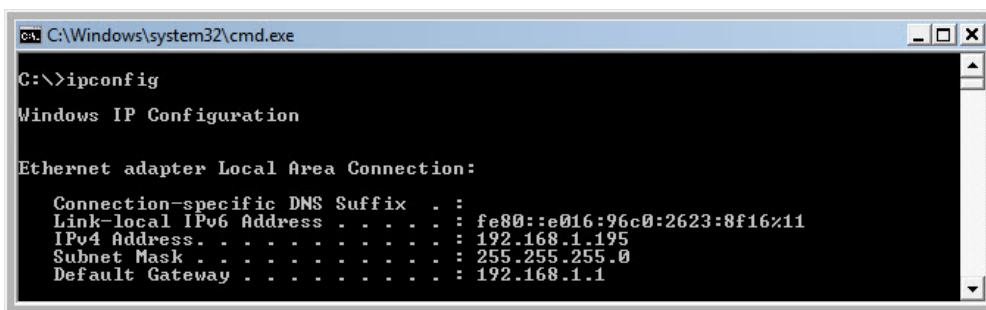
Pinging 127.0.0.1 with 32 bytes of data:
Reply from 127.0.0.1: bytes=32 time=9ms TTL=128
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128

Ping statistics for 127.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 9ms, Average = 2ms

C:\>_
```

How many Replies did you receive?

Use the **ipconfig** command.



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

C:\>ipconfig

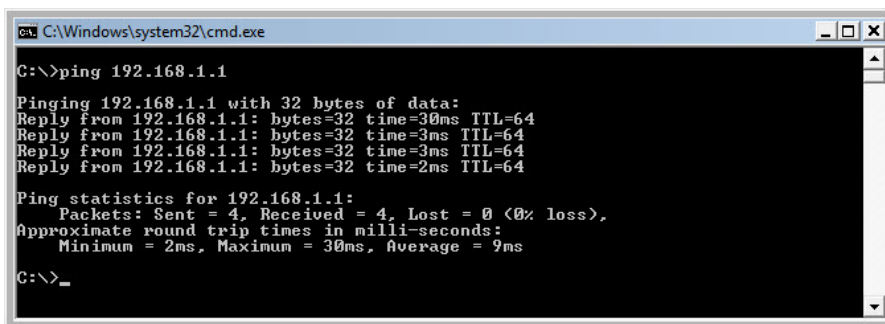
Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::e016:96c0:2623:8f16%11
    IPv4 Address. . . . . : 192.168.1.195
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1
```

What is the IP address of the default gateway?

Ping the default gateway.



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

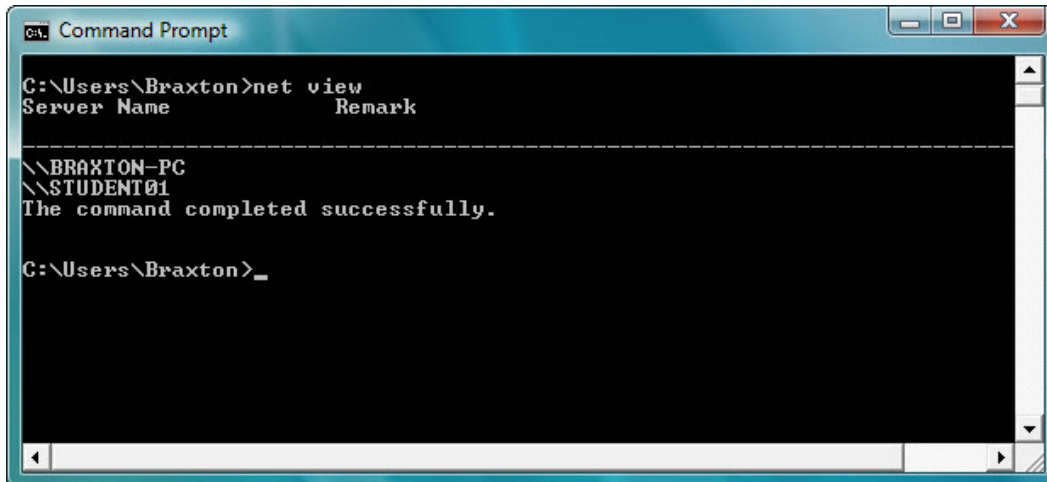
C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time=30ms TTL=64
Reply from 192.168.1.1: bytes=32 time=3ms TTL=64
Reply from 192.168.1.1: bytes=32 time=3ms TTL=64
Reply from 192.168.1.1: bytes=32 time=2ms TTL=64

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 30ms, Average = 9ms

C:\>_
```

A successful ping indicates that there is a connection between the computer and the default gateway.



```

C:\Users\Braxton>net view
Server Name          Remark
-----
\\BRAXTON-PC
\\STUDENT01
The command completed successfully.

C:\Users\Braxton>_

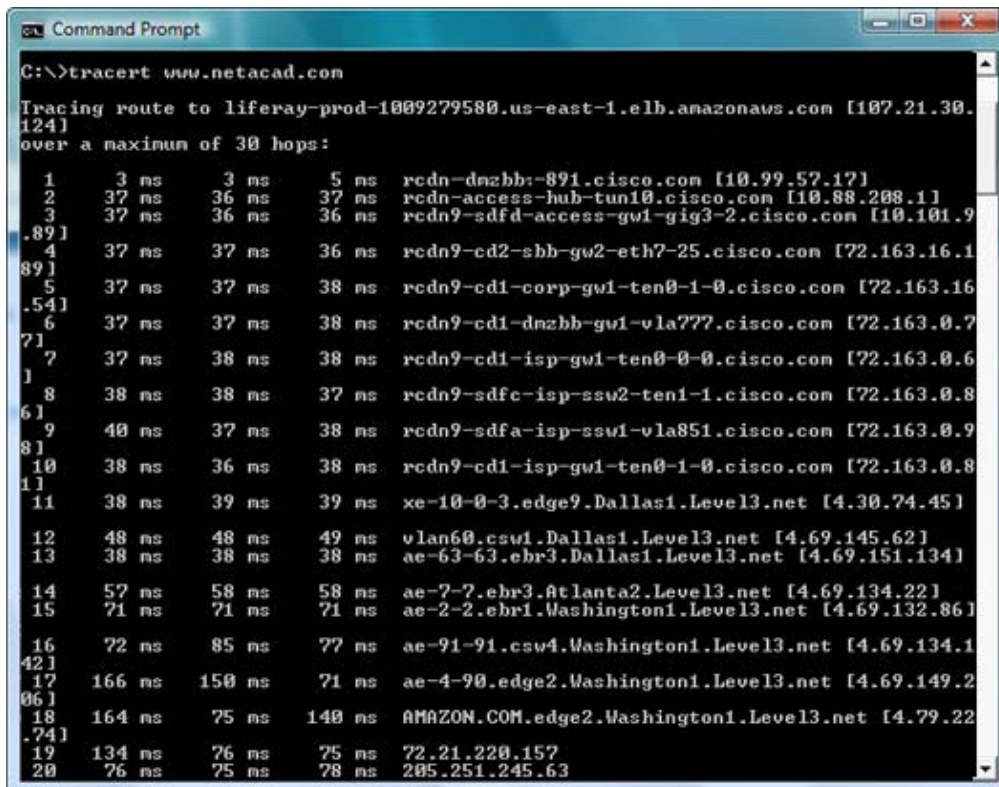
```

Type **net view**.

List the computer names that are displayed.

If you have an external connection, try the following commands.

Use the **tracert** command along with your schools Web site or the Cisco Networking Academy Web site.
Example: type **tracert www.netacad.net**.



```

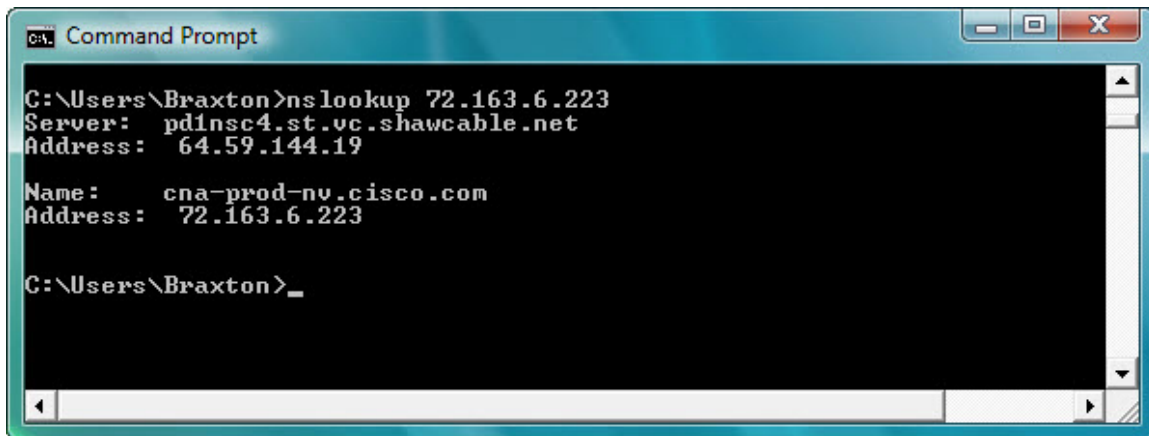
C:\>tracert www.netacad.net

Tracing route to liferay-prod-1009279580.us-east-1.elb.amazonaws.com [107.21.30.124]
over a maximum of 30 hops:
  0  0 ms  0 ms  0 ms  0 ms  rcdn-dmzbb-891.cisco.com [10.99.57.17]
  1  37 ns  36 ns  37 ns  rcdn-access-hub-tun10.cisco.com [10.88.208.11]
  2  37 ns  36 ns  36 ns  rcdn9-sdfd-access-gw1-gig3-2.cisco.com [10.101.9
.89]
  3  37 ns  37 ns  36 ns  rcdn9-cd2-sbb-gw2-eth7-25.cisco.com [72.163.16.1
89]
  4  37 ns  37 ns  38 ns  rcdn9-cd1-corp-gw1-ten0-1-0.cisco.com [72.163.16
.54]
  5  37 ns  37 ns  38 ns  rcdn9-cd1-dmzbb-gw1-vla777.cisco.com [72.163.0.7
7]
  6  37 ns  38 ns  38 ns  rcdn9-cd1-isp-gw1-ten0-0-0.cisco.com [72.163.0.6
1]
  7  38 ns  38 ns  37 ns  rcdn9-sdfc-isp-ssu2-ten1-1.cisco.com [72.163.0.8
6]
  8  40 ns  37 ns  38 ns  rcdn9-sdfa-isp-ssu1-vla851.cisco.com [72.163.0.9
8]
  9  38 ns  36 ns  38 ns  rcdn9-cd1-isp-gw1-ten0-1-0.cisco.com [72.163.0.8
1]
 10  38 ns  39 ns  39 ns  xe-10-0-3.edge9.Dallas1.Level3.net [4.30.74.45]
 11  48 ns  48 ns  49 ns  vlan60.csw1.Dallas1.Level3.net [4.69.145.62]
 12  38 ns  38 ns  38 ns  ae-63-63.ebr3.Dallas1.Level3.net [4.69.151.134]
 13  57 ns  58 ns  58 ns  ae-7-7.ebr3.Atlanta2.Level3.net [4.69.134.22]
 14  71 ns  71 ns  71 ns  ae-2-2.ebr1.Washington1.Level3.net [4.69.132.86]
 15  72 ns  85 ns  77 ns  ae-91-91.csw4.Washington1.Level3.net [4.69.134.1
42]
 16 166 ns 150 ns  71 ns  ae-4-90.edge2.Washington1.Level3.net [4.69.149.2
06]
 17 164 ns  75 ns 140 ns  AMAZON.COM.edge2.Washington1.Level3.net [4.79.22
.74]
 18 134 ns  76 ns  75 ns  72.21.220.157
 19  76 ns  75 ns  78 ns  205.251.245.63
 20

```

What IP address was returned?

Use the **nslookup** command with the IP address you just discovered.



```
C:\Users\Braxton>nslookup 72.163.6.223
Server:      pd1nsc4.st.vc.shawcable.net
Address:     64.59.144.19

Name:       cna-prod-nv.cisco.com
Address:    72.163.6.223

C:\Users\Braxton>
```

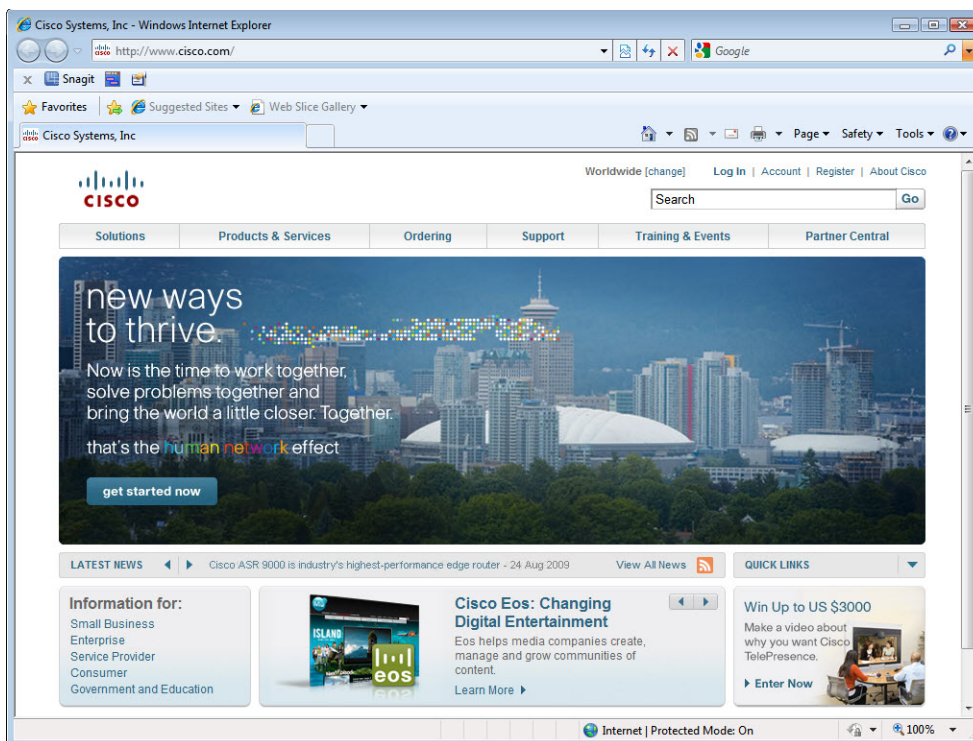
Type **nslookup 72.163.6.223**.

What name was returned?

Step 2

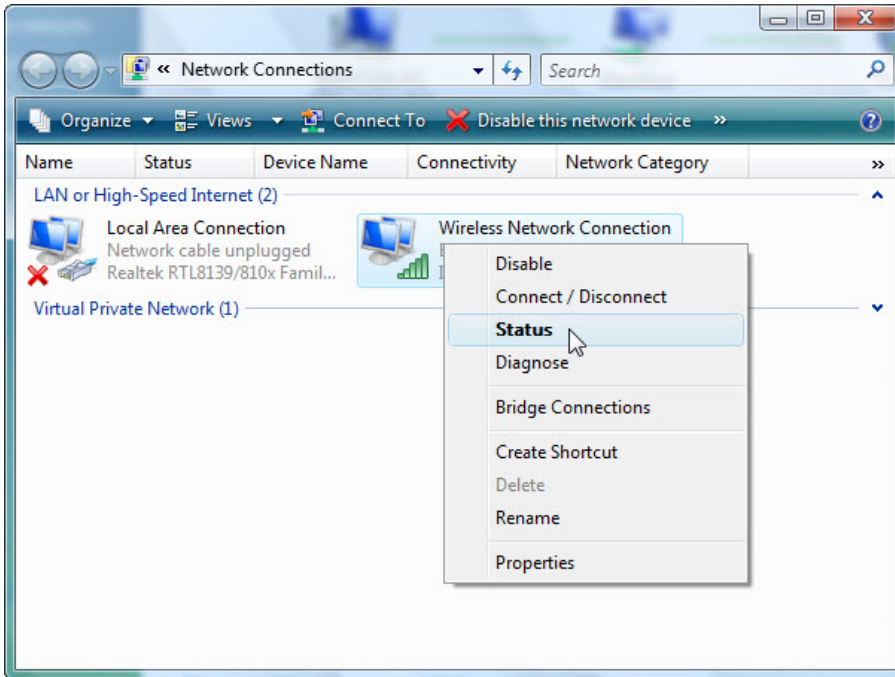
Open a web browser.

Type **www.cisco.com** in the “Address” field, and then press **Enter**.

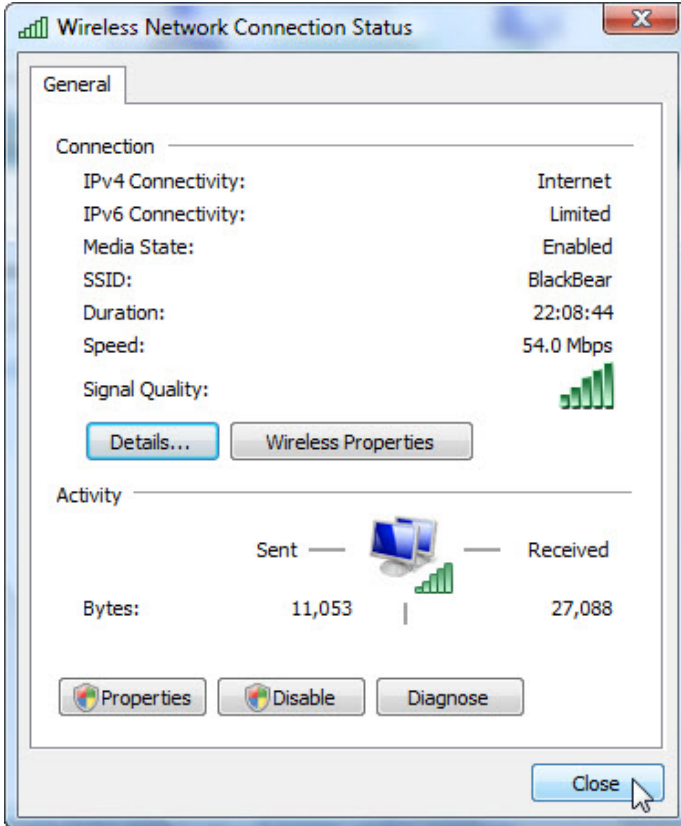


Step 3

Open the **Network Connections** window.



Right-click the **Wireless Network Connection** icon > **Status**.



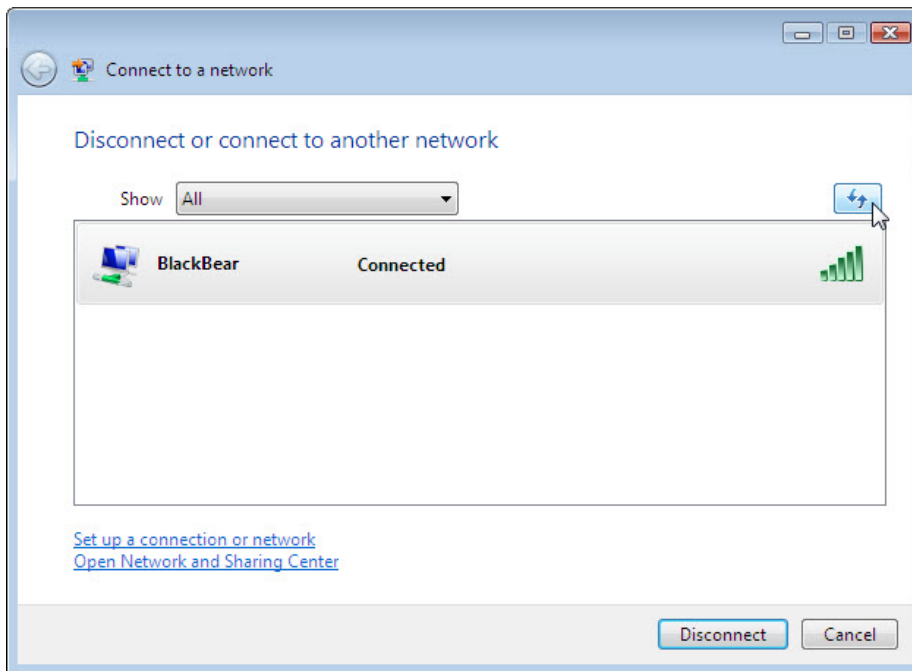
The “Wireless Network Connection Status” window opens.

Click **Close**.

Right-click the wireless connection and select **Connect / Disconnect**.

Select **All** from the Show drop-down menu.

Click the **Refresh** button.



What are the names of the wireless networks that are available?