

## IT Essentials 5.0

### 6.8.3.14 Lab - Test the Wireless NIC in Windows 7

#### 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 7 installed
- A wireless NIC installed
- An Ethernet NIC installed
- Linksys E2500 Wireless Router
- Internet connectivity

#### Step 1

Disconnect the Ethernet cable from your computer.

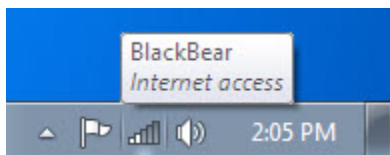
An “orange dot” appears over the “Connections” icon.



Hover over the “Connections” icon in the tray.

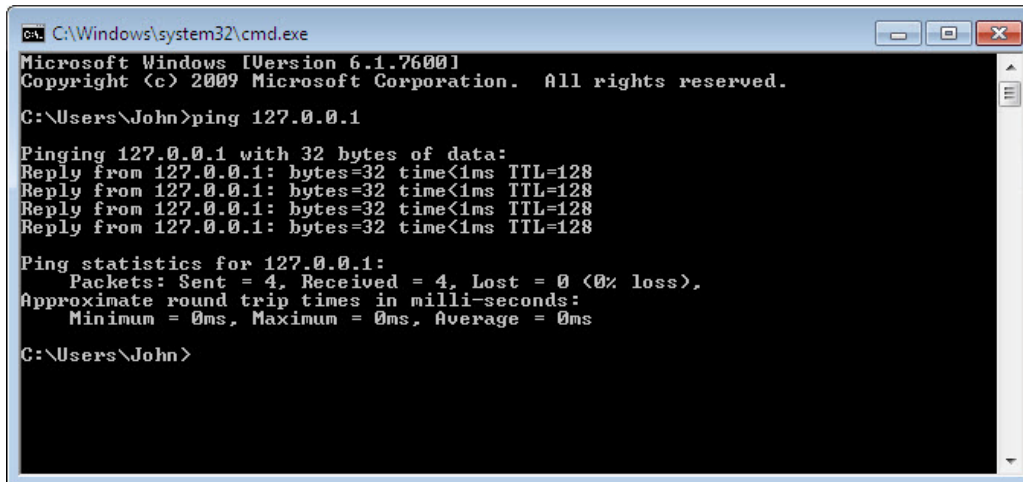
What is the name of the wireless connection?

Connect to a wireless network.



Open a command window.

Ping **127.0.0.1**.



```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\John>ping 127.0.0.1

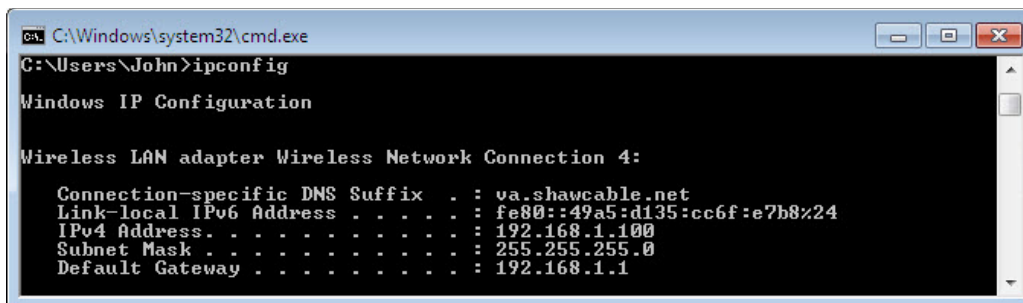
Pinging 127.0.0.1 with 32 bytes of data:
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128
Reply from 127.0.0.1: bytes=32 time<1ms TTL=128

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 = 0ms, Average = 0ms

C:\Users\John>
```

How many Replies did you receive?

Use the **ipconfig** command.



```
C:\Windows\system32\cmd.exe
C:\Users\John>ipconfig

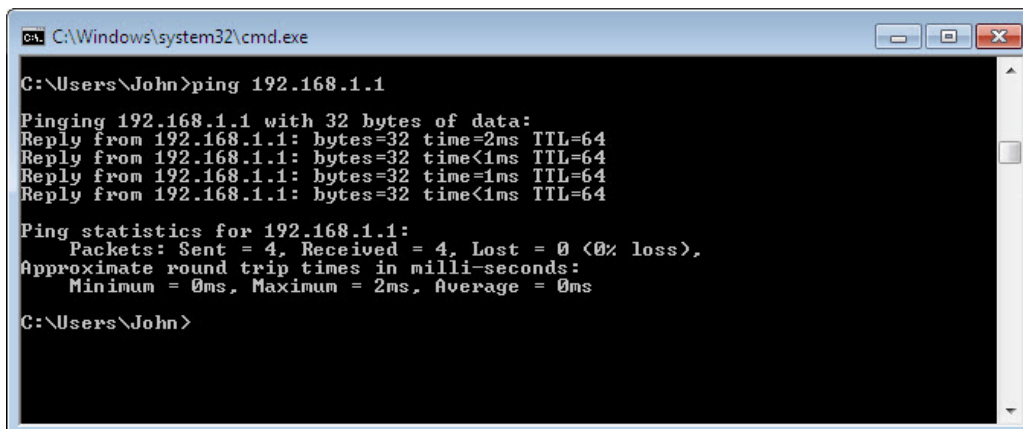
Windows IP Configuration

Wireless LAN adapter Wireless Network Connection 4:

    Connection-specific DNS Suffix  . : va.shawcable.net
    Link-local IPv6 Address . . . . . : fe80::49a5:d135:cc6f:e7b8%24
    IPv4 Address. . . . . : 192.168.1.100
    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.



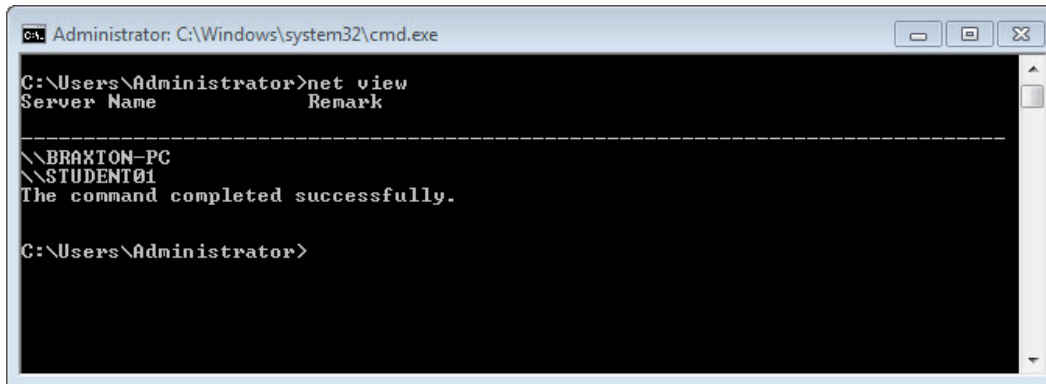
```
C:\Windows\system32\cmd.exe
C:\Users\John>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time=2ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time=1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms 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 = 0ms, Maximum = 2ms, Average = 0ms

C:\Users\John>
```

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



```

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

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

C:\Users\Administrator>

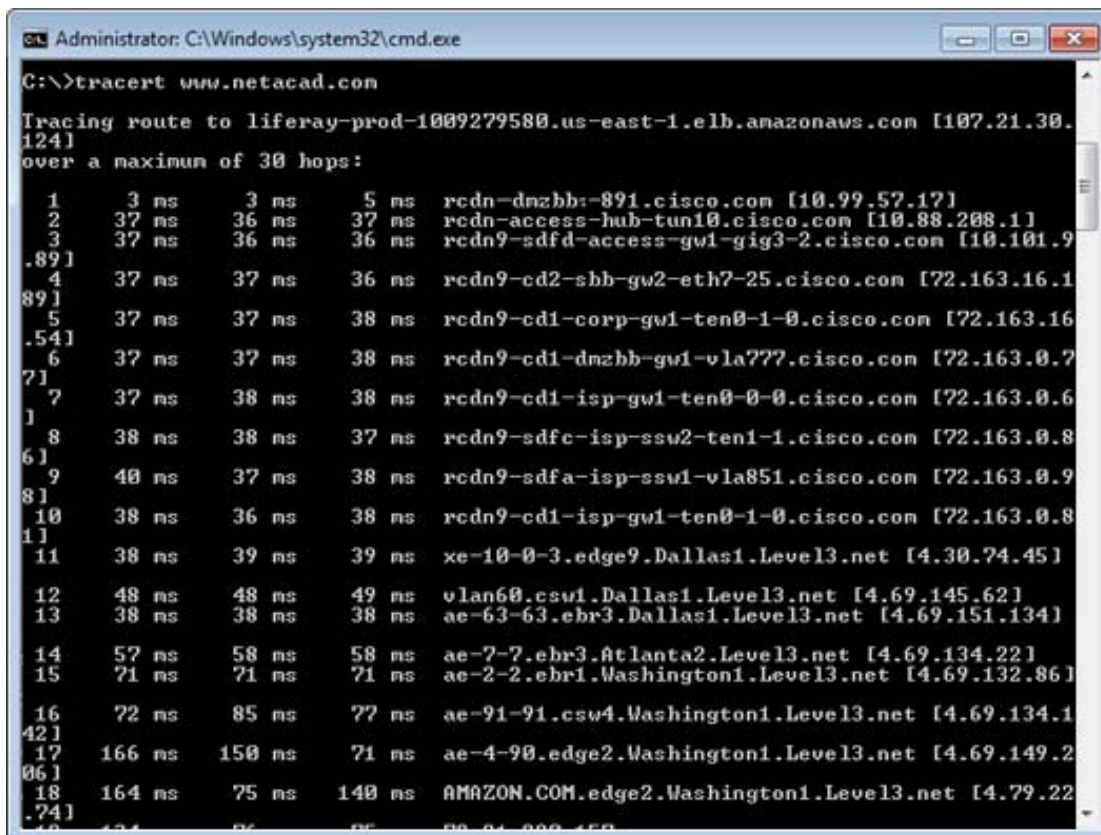
```

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.com**.



```

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

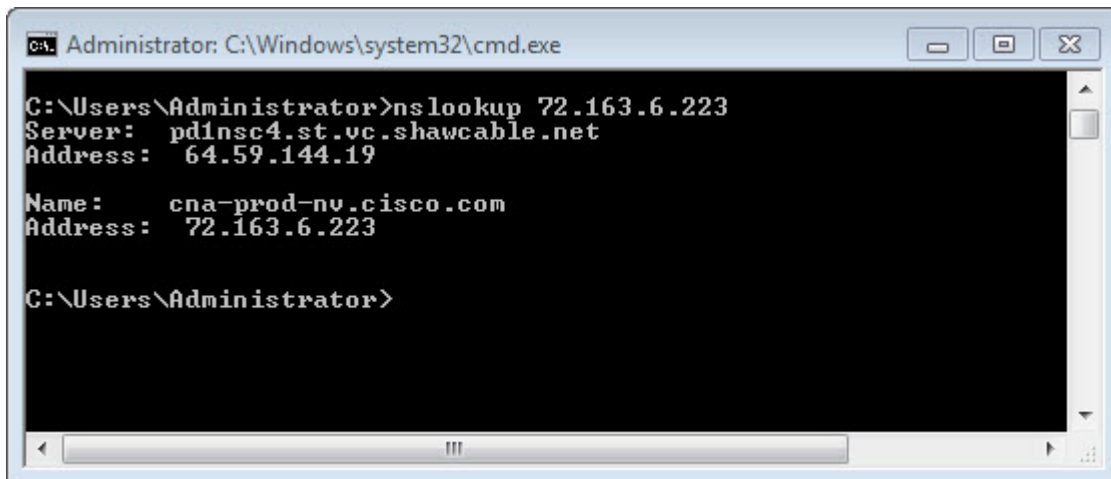
C:\>tracert www.netacad.com

Tracing route to liferay-prod-1009279580.us-east-1.elb.amazonaws.com [107.21.30.124]
over a maximum of 30 hops:
  0  3 ms  3 ms  5 ms  rcdn-dmzbb-891.cisco.com [10.99.57.17]
  1  37 ms  36 ms  37 ms  rcdn-access-hub-tun10.cisco.com [10.88.208.11]
  2  37 ms  36 ms  36 ms  rcdn9-sdfd-access-gw1-gig3-2.cisco.com [10.101.9
.89]
  3  37 ms  37 ms  36 ms  rcdn9-cd2-sbb-gw2-eth7-25.cisco.com [72.163.16.1
89]
  4  37 ms  37 ms  38 ms  rcdn9-cd1-corp-gw1-ten0-1-0.cisco.com [72.163.16
.54]
  5  37 ms  37 ms  38 ms  rcdn9-cd1-dmzbb-gw1-vla777.cisco.com [72.163.0.7
7]
  6  37 ms  38 ms  38 ms  rcdn9-cd1-isp-gw1-ten0-0-0.cisco.com [72.163.0.6
1]
  7  38 ms  38 ms  37 ms  rcdn9-sdfc-isp-ssw2-ten1-1.cisco.com [72.163.0.8
6]
  8  40 ms  37 ms  38 ms  rcdn9-sdfa-isp-ssw1-vla851.cisco.com [72.163.0.9
8]
  9  38 ms  36 ms  38 ms  rcdn9-cd1-isp-gw1-ten0-1-0.cisco.com [72.163.0.8
1]
 10  38 ms  39 ms  39 ms  xe-10-0-3.edge9.Dallas1.Level3.net [4.30.74.45]
 11  48 ms  48 ms  49 ms  vlan60.csw1.Dallas1.Level3.net [4.69.145.62]
 12  38 ms  38 ms  38 ms  ae-63-63.ebr3.Dallas1.Level3.net [4.69.151.134]
 13  57 ms  58 ms  58 ms  ae-7-7.ebr3.Atlanta2.Level3.net [4.69.134.22]
 14  71 ms  71 ms  71 ms  ae-2-2.ebr1.Washington1.Level3.net [4.69.132.86]
 15  72 ms  85 ms  77 ms  ae-91-91.csw4.Washington1.Level3.net [4.69.134.1
42]
 16 166 ms 150 ms  71 ms  ae-4-90.edge2.Washington1.Level3.net [4.69.149.2
06]
 17 164 ms  75 ms 140 ms  AMAZON.COM.edge2.Washington1.Level3.net [4.79.22
.74]
 18
 19

```

What IP address was returned?

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



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

C:\Users\Administrator>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\Administrator>
```

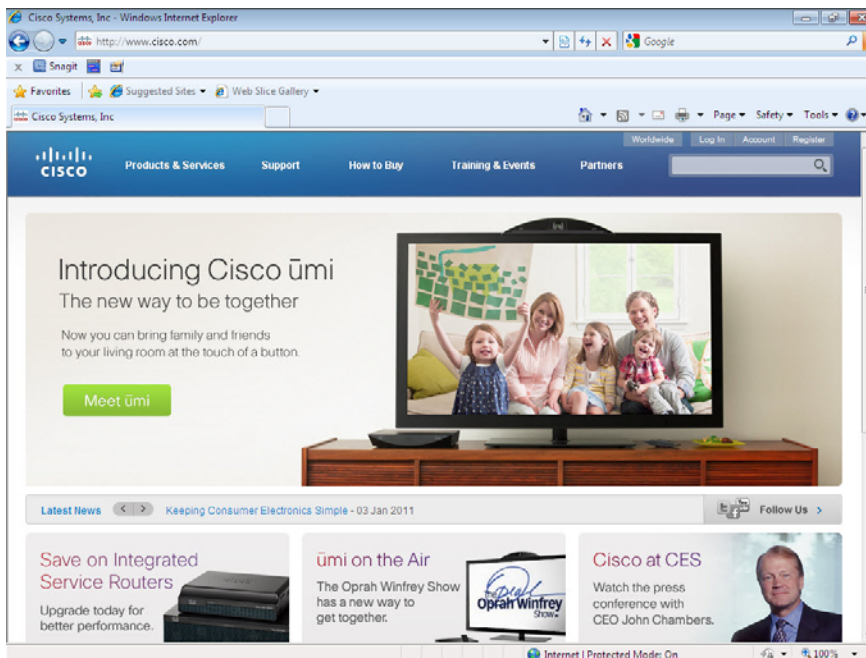
Type **nslookup 72.163.6.233**.

What name was returned?

## Step 2

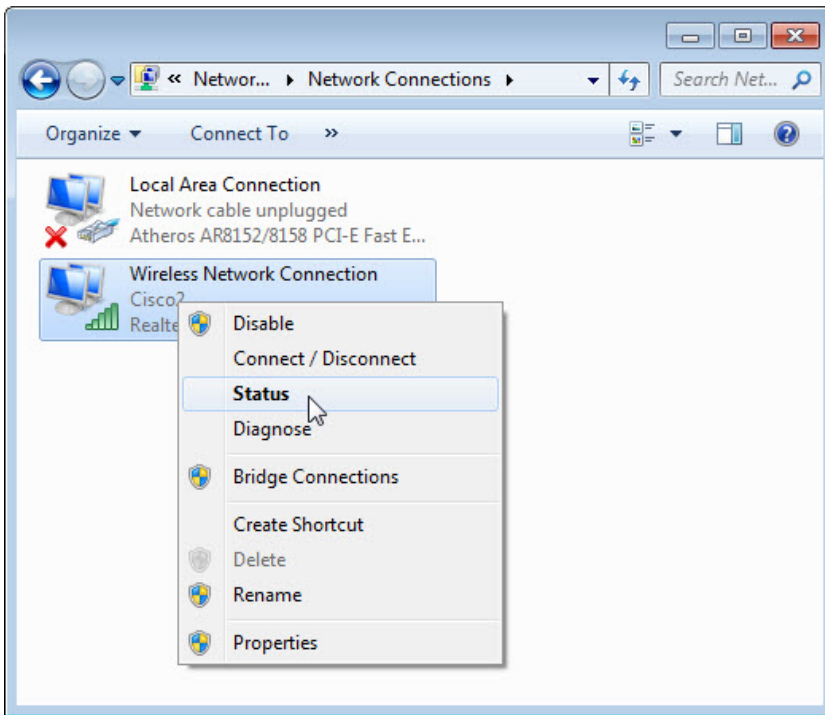
Open a web browser.

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

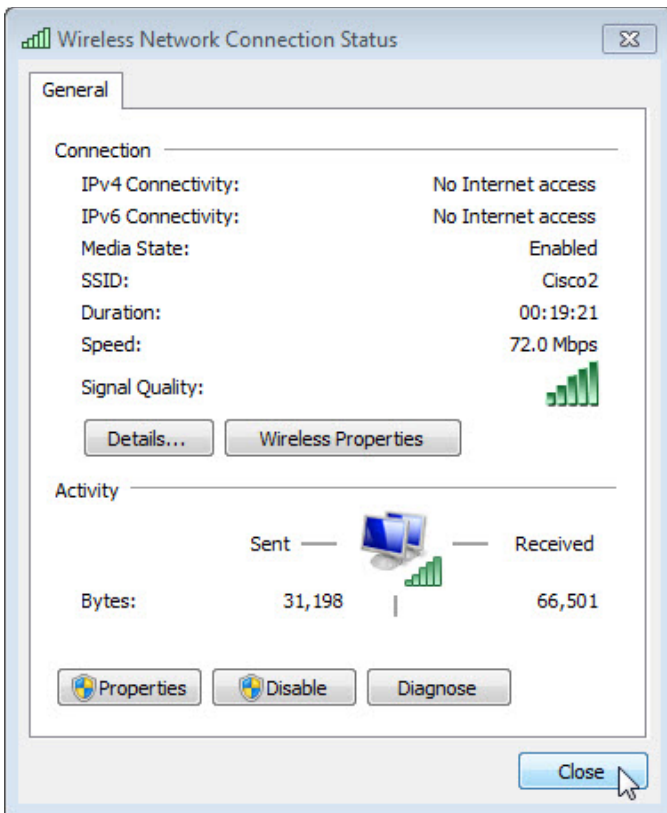


## Step 3

Open the **Network Connections** window.



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



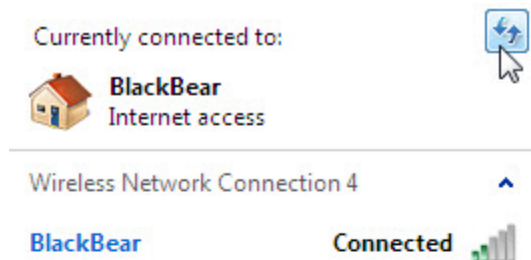
The "Wireless Network Connection Status" window opens.

Click **Close**.

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

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

Click the **Refresh** button.



[Open Network and Sharing Center](#)

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