

# ACT High Speed WiMAX Internet

## Troubleshooting Guide



This guide is designed to help troubleshoot any technical problems that may arise with your High Speed WiMAX Internet from ACT. Should you need further assistance, please feel free to call our helpdesk at 866.615.5438.



888 304 888 • 307 673 0910

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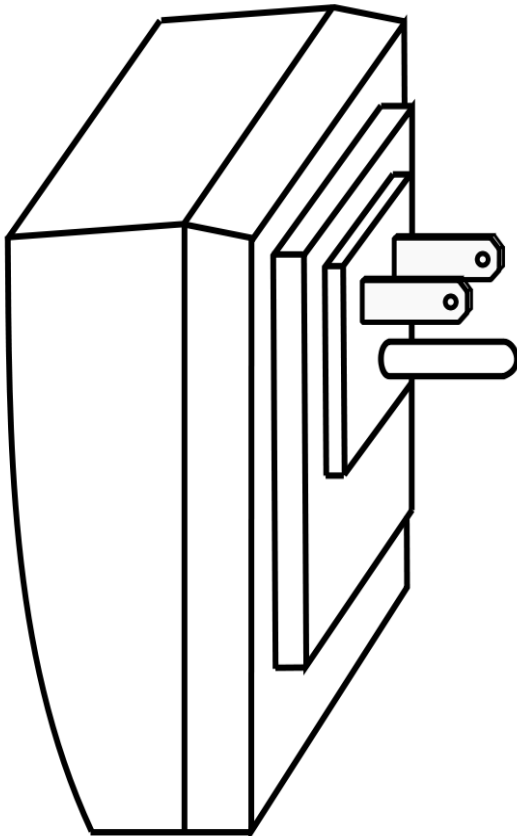
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## ACT WiMAX Troubleshooting Antenna Verification

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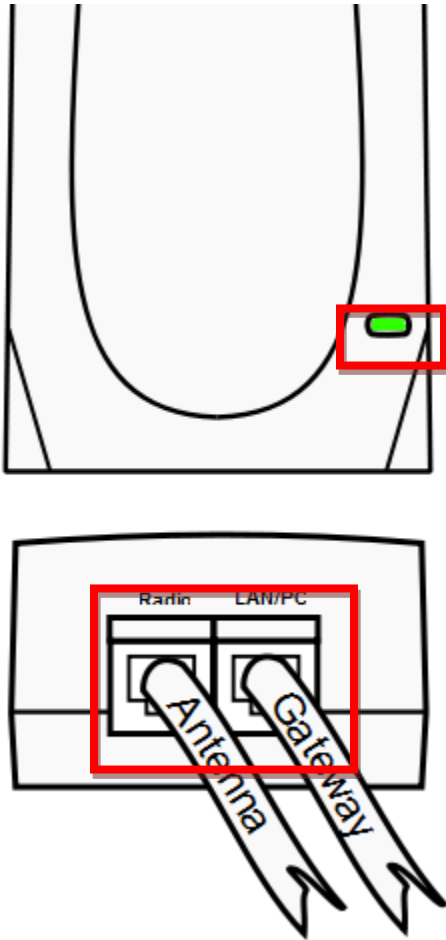
**Verify that the PoE wall plug is connected to your gateway and to the antenna –**

- 1.) Find your PoE wall plug. It should look like the device below. It is a small black wall plug device.



This device will most likely be located in a wall outlet near your gateway device.

- 2.) On the bottom side will be 2 Ethernet ports. Please verify that both ports are plugged in and that the light on the back of the unit is solid green.



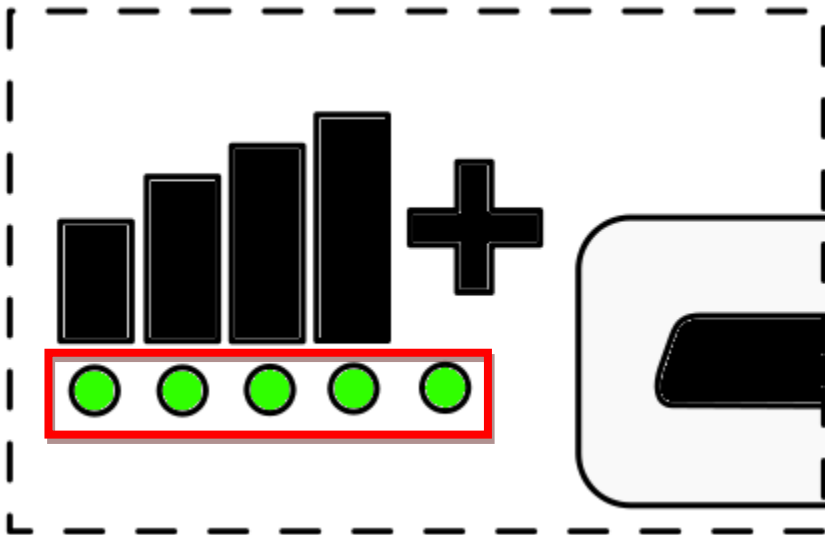
If the green light is off, make sure that the plug is firmly seated in the wall outlet. If that doesn't help, then please call ACT technical support using the number provided on your install packet

Otherwise, please verify that both cables are run to the proper devices and that they are both seated firmly in the PoE plug ports.



### Verify that the antenna is on and has signal from the tower

- 1.) If you can, please find the antenna mounted either on top of your home or on the side of your home and verify that there are green lights located on the bottom of the antenna in the following location highlighted below. As long as green lights are lit, move on to step 2.

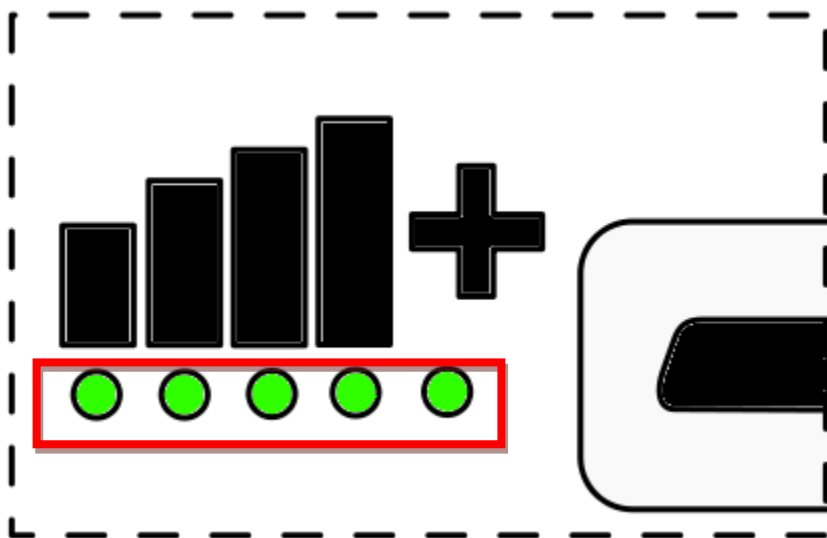


- 2.) If green lights are lit and you are still experiencing connectivity loss or slow speeds, please verify that the green lights are not rapidly bouncing from different numbers of lights lit. For example, if the lights are going from 1 lit to 5 lit in the span of a few seconds, like the figures below, this is not desired and you should contact ACT technical support using the number provided with your installation package. Otherwise, please refer to the gateway troubleshooting guide and the PC configuration troubleshooting guide.

First look



5 seconds later

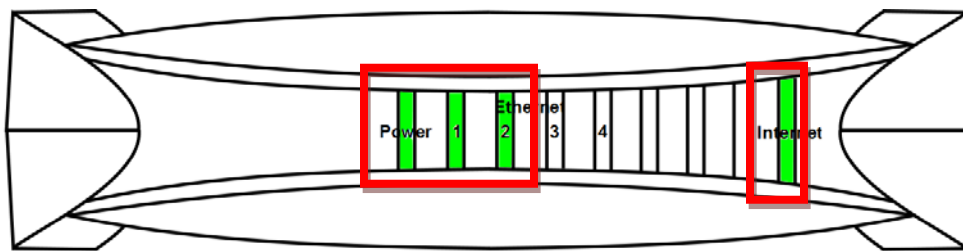


## ACT WiMAX Troubleshooting Gateway Verification

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### Verify the lights on your home gateway –

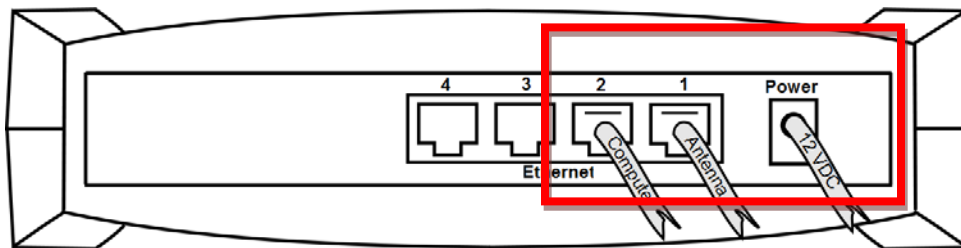
- 1.) Verify that the lights on your modem are lit like the picture below, with Power, 1, 2 and Internet lit up in green.



If the group of three lights on the left and the light on the right are not lit (or some are not), then proceed to step 2.

If they are, then refer to the troubleshooting steps for PING

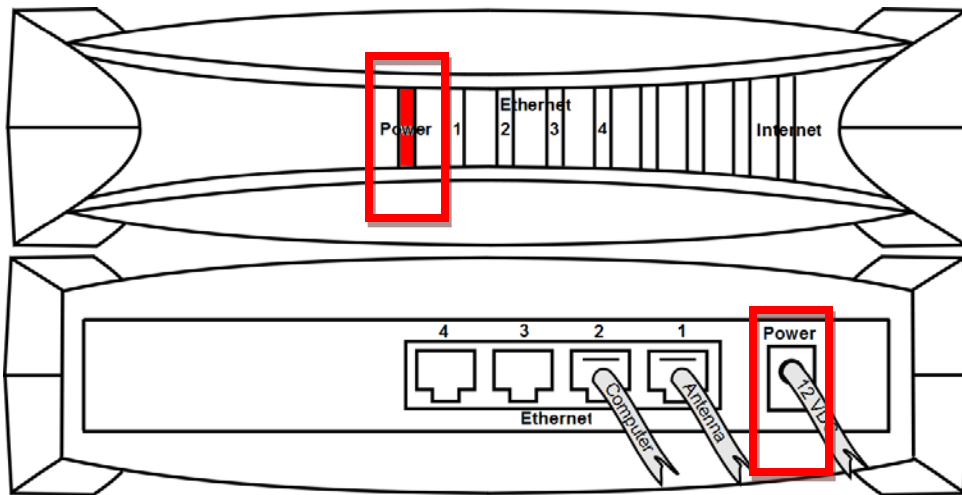
- 2.) Verify that cables are plugged into the modem for power, the WiMAX antenna feed and your computer in the order shown below.



If all cables are plugged in, then proceed to step 3.

If any are not, plug them in the order shown above.

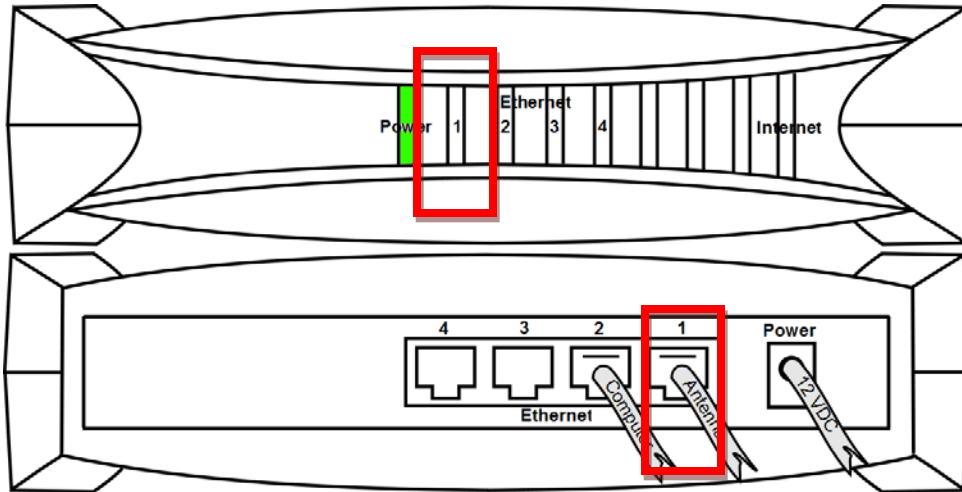
- 3.) First we'll verify the lights starting with Power light and the corresponding cable on the back. If the power light below is red or not lit, then plug the power cable in the back as shown below and verify that the corresponding cable is plugged into a 120 VAC outlet. Otherwise, proceed to step 4.



After waiting for roughly 5 minutes and the Power light does not change to green, please contact ACT technical support. If however, the Power light does turn and stay green then return to step 1.

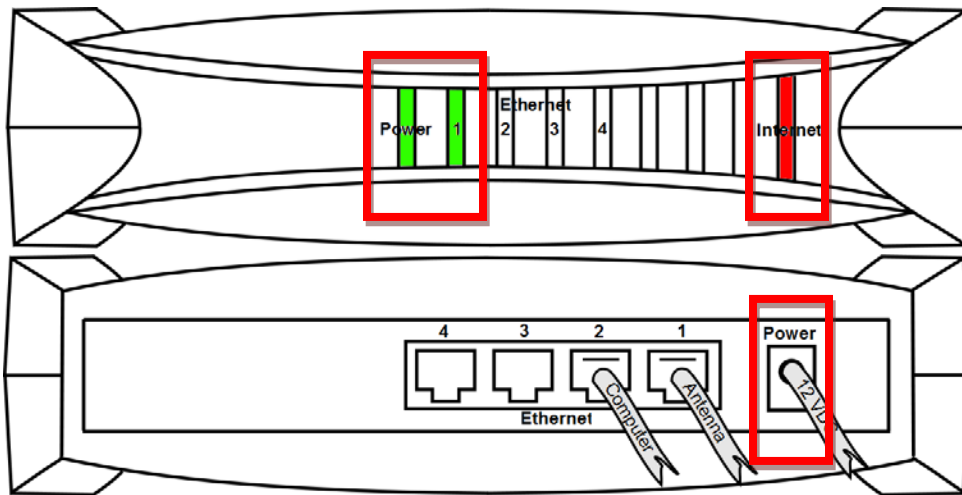


- 4.) Now we'll verify if our uplink light is lit. This is the link light for the cable that feeds the WiMAX antenna installed at your home. If the light is not lit, then verify that the cable in back is firmly seated in the plug. If so, trace the cable to the Power over Ethernet wall plug that came with your installation and verify that this wall plug is firmly seated in a 120 VAC outlet. If the light is lit, then proceed to step 5.



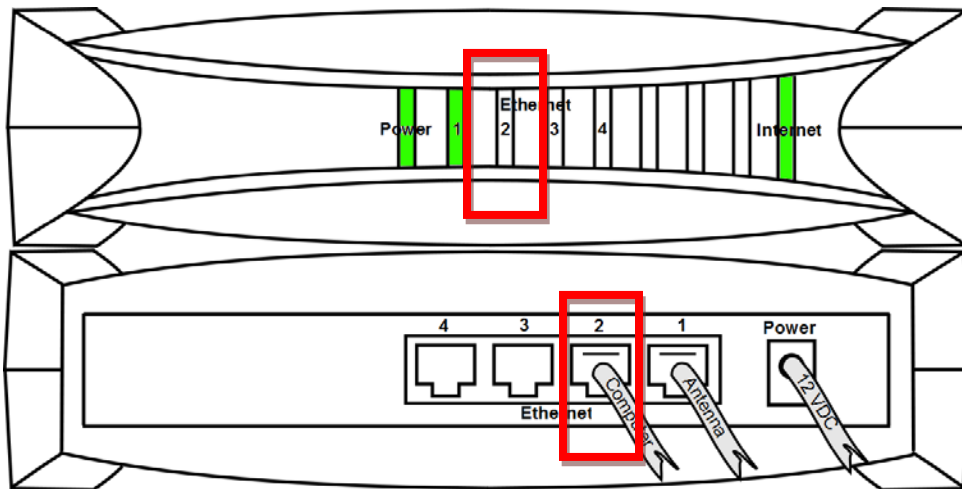
If checking these connections causes the light to turn green for port 1, then return to step 1 to verify your lights again. However, if this doesn't correct your issue, then please contact ACT technical support using the number provided in your installation packet.

- 5.) Now we'll verify that the gateway is talking to the rest of the Internet. If at least Power and port 1 are lit, but Internet remains red, like below, we need to power cycle the gateway to see if it will obtain an address with which it can talk to the rest of the Internet. Pull the power plug on the back of the gateway out (highlighted in image below) for 5 seconds then plug it back in.



After waiting for approximately 5 minutes, and the Internet light does not change to green, contact ACT technical support using the number provided in your installation packet. However, if the Internet light turns green, please return to step 1.

- 6.) Finally, we'll verify if the computer cable light is lit. If Power, port 1 and Internet are all lit green, and port 2 is not lit, then please verify the following: cable is seated snugly in port 2 on the back of the gateway as shown below and cable is seated snugly in the Ethernet port on the back of your computer.



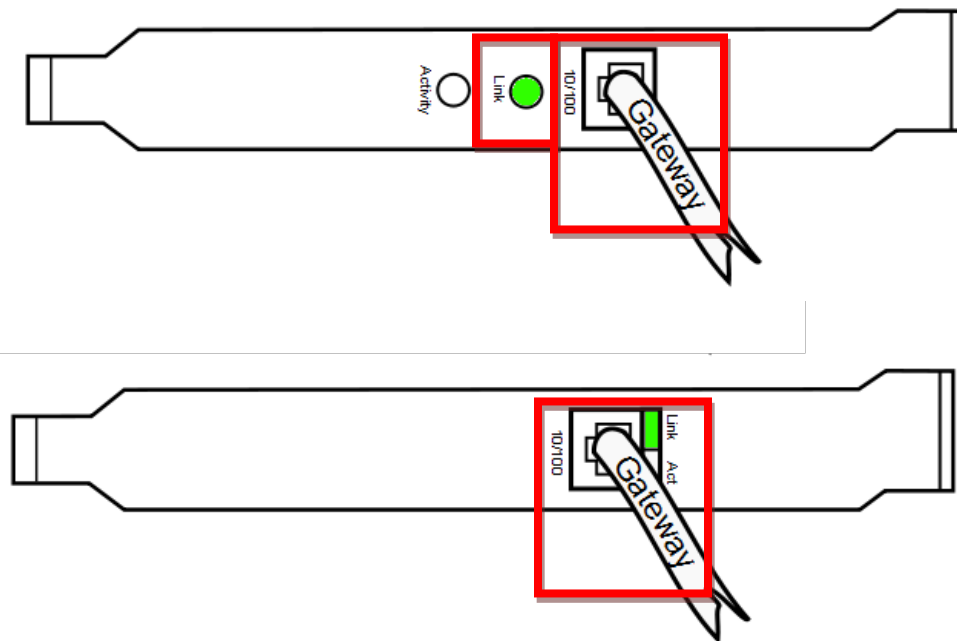
If verification of cable snugness does not cause the light to turn green for port 2, then try the following: if possible, change out the cable between port 2 and your computer, try changing cable from port 2 to port 3 and verify that computer LAN port is enabled and configured via the computer setup guide in your installation packet. If none of these steps light the port, then refer to the troubleshooting guide for PC Connectivity.

## ACT WiMAX Troubleshooting PC Connection Verification

Verify that your PC's is configured correctly to access the Internet –

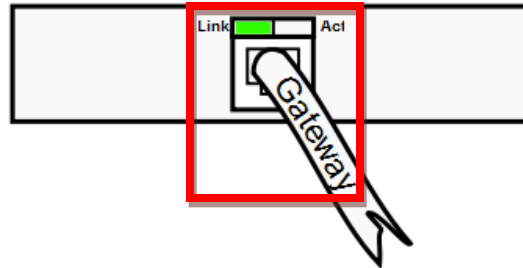
1.) Check the cabling

- a. If you have a desktop, then there will usually be a card in the back that looks like the below. Make sure that there is a link light like the two examples below and that there is a cable firmly seated in it running to the gateway device



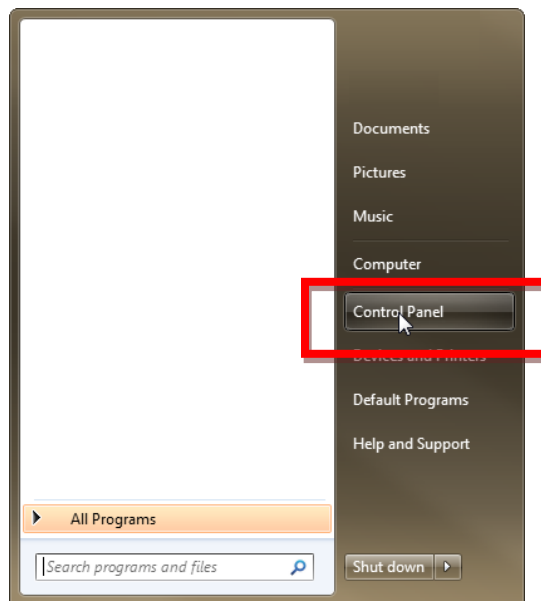
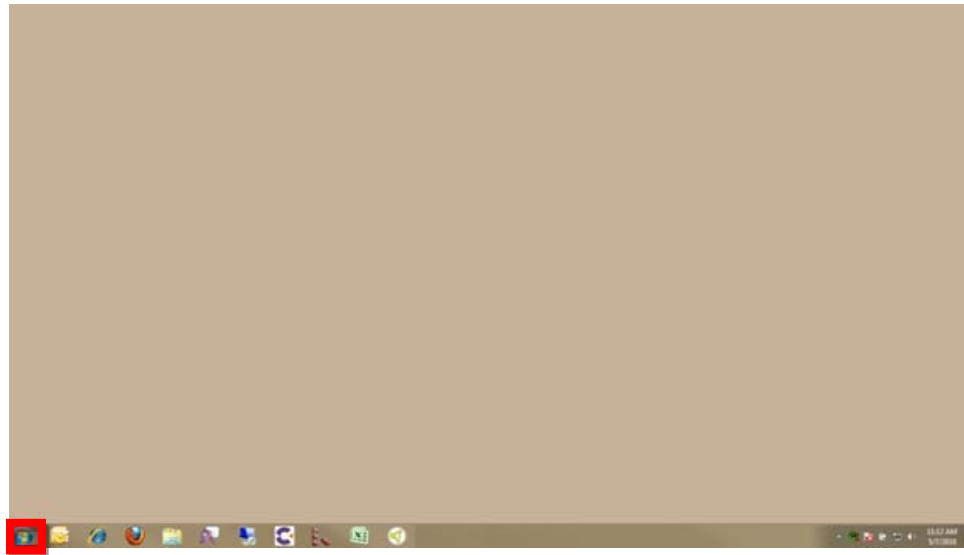
If the cable is firmly seated in the card and on your gateway and you have already tried replacing the cable (if possible) then proceed to step 2.

- b. If you have a laptop, then there will usually be an Ethernet port on the left, right or back side of the laptop that will look like the example below

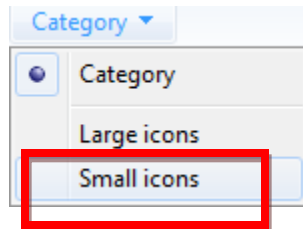
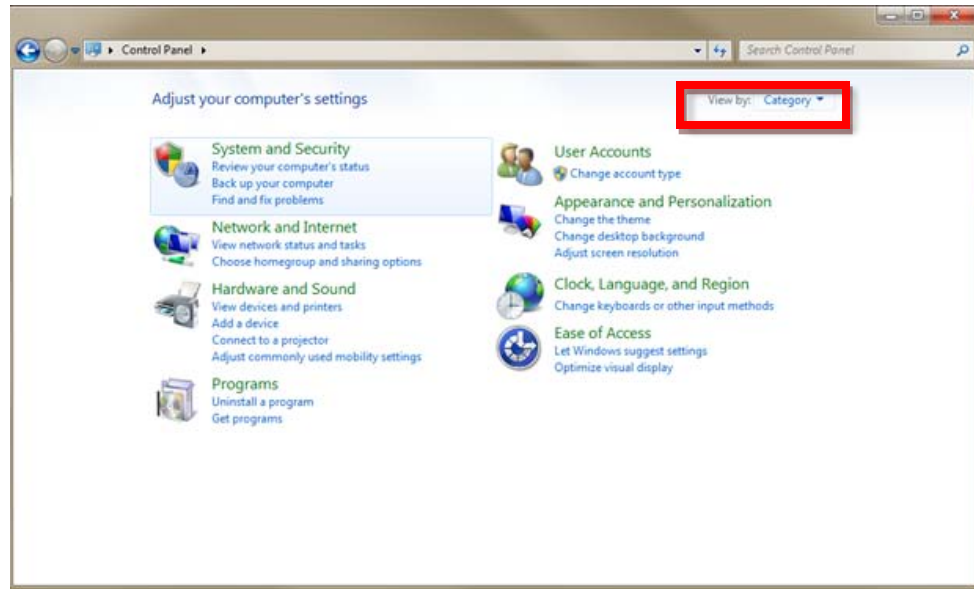


If the cable is firmly seated in the card and on your gateway and you have already tried replacing the cable (if possible) then proceed to step 2.

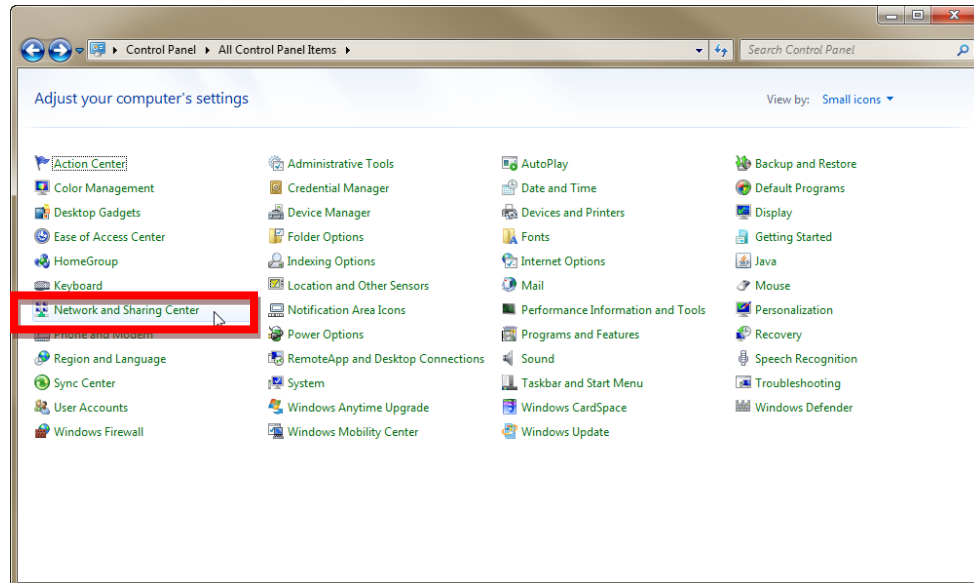
- 2.) If all cables are firmly seated and the link light is still not lit on your Ethernet port or you have verified all steps listed in the Gateway Troubleshooting guide, then we need to verify that your PC's Ethernet port is enabled and configured correctly
  - a. First, we need to verify that the port is enabled. Go to Start/Windows Button and Click on Control Panel



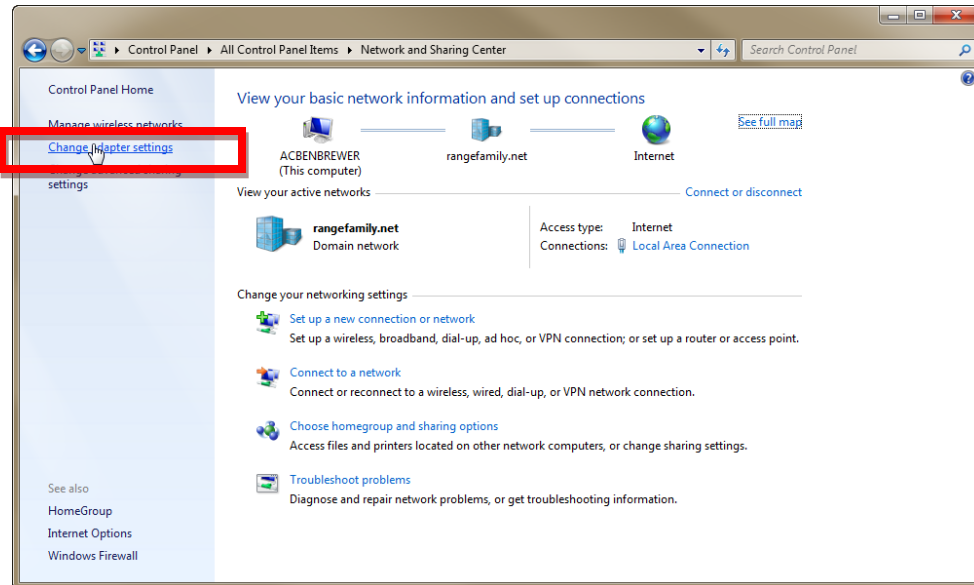
**b. Switch to Small Icons View in the Control Panel**



**c. Click on Network and Sharing Center**

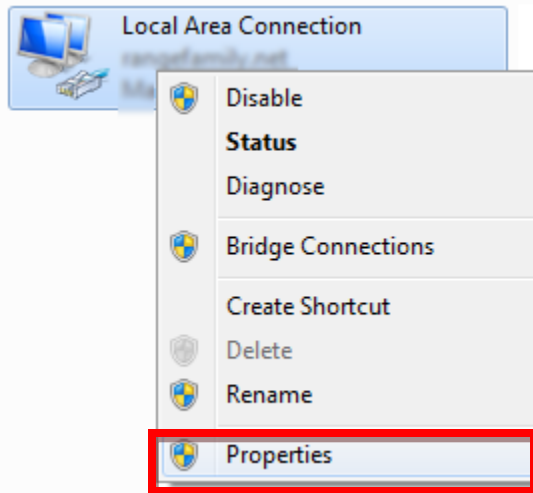
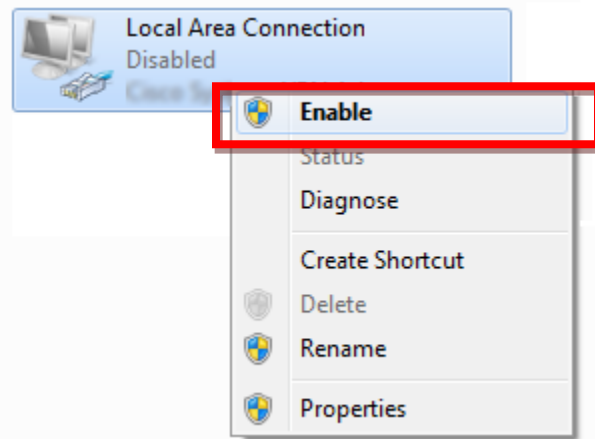
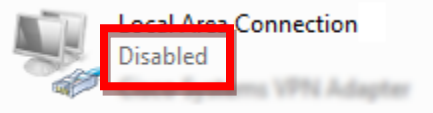


d. Click on Change Adapter Settings

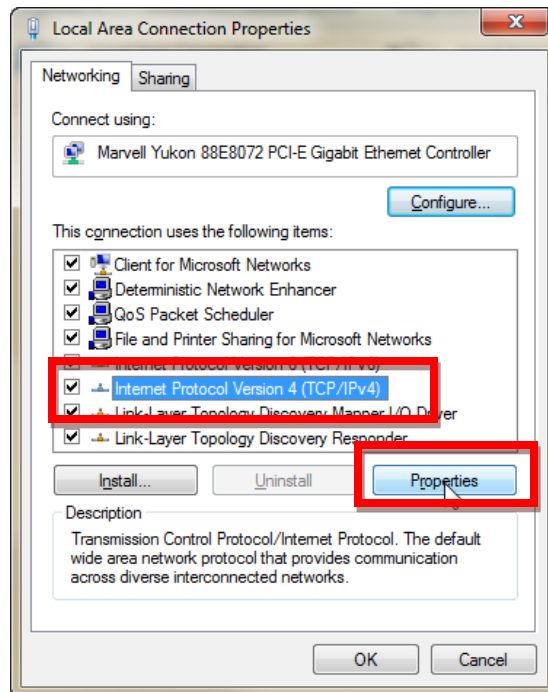




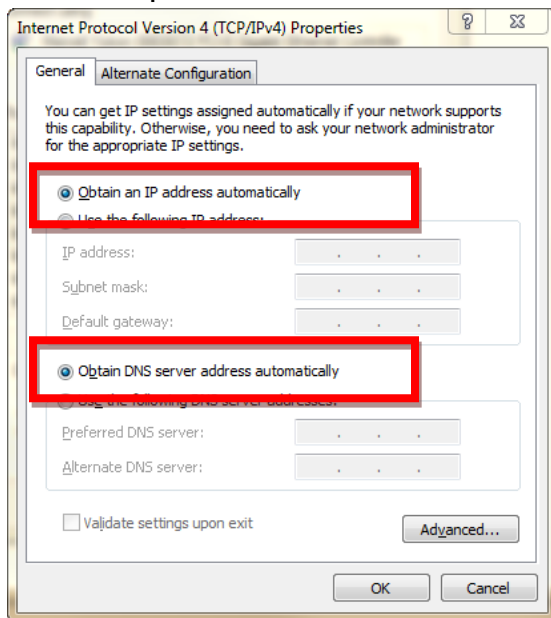
- e. You will now see your Local Area Connection. If it looks like the below, right click on it and select Enable. Then right click on it and select Properties



f. Click on Internet Protocol Version 4 (TCP/IPv4) and then click on Properties



Verify that the IP settings are as follows and click OK here and OK on the LAN Properties to apply the settings. If these were correct, then contact ACT technical support using the number provided in your installation packet.

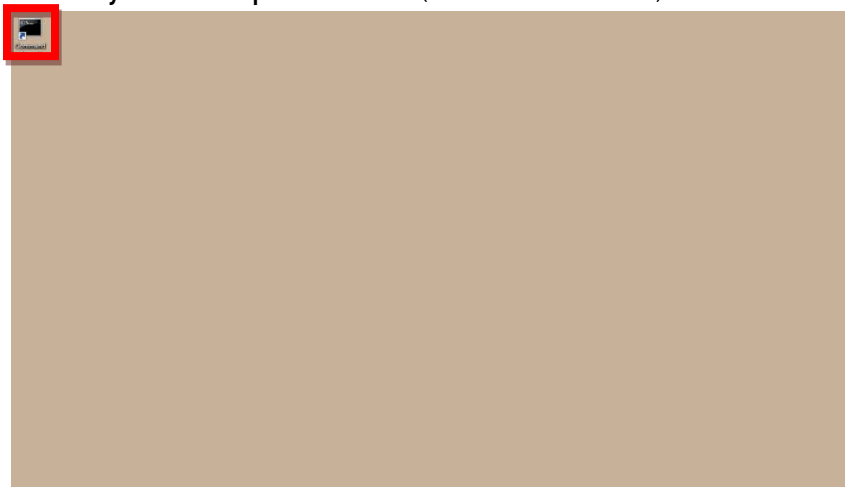


## ACT WiMAX Troubleshooting Ping Testing

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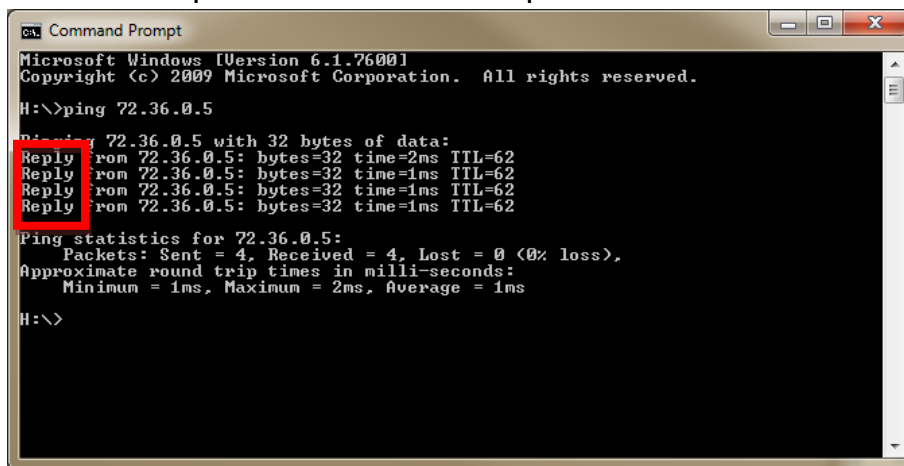
Verify that you have connectivity to your home gateway –

- 3.) Turn on your computer
- 4.) Once your computer has booted, open up the Windows command prompt by click on the icon for it on your desktop or start bar (Start > Run > CMD)



- 5.) Once you have the command prompt open. Enter the following command –  
*ping 192.168.1.254*

You should 4 replies as shown in the example below



```
cmd Command Prompt
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

H:\>ping 72.36.0.5

Pinging 72.36.0.5 with 32 bytes of data:
Reply from 72.36.0.5: bytes=32 time=2ms TTL=62
Reply from 72.36.0.5: bytes=32 time=1ms TTL=62
Reply from 72.36.0.5: bytes=32 time=1ms TTL=62
Reply from 72.36.0.5: bytes=32 time=1ms TTL=62

Ping statistics for 72.36.0.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms

H:\>
```

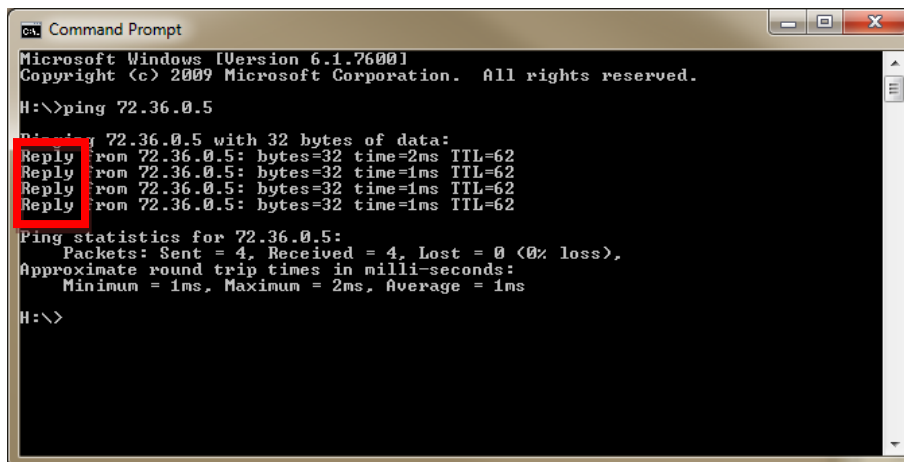
If you do not see 4 replies, then refer to the guide covering PC Connectivity.

### Verify that you have connectivity to your ISP gateway –

- 3.) Turn on your computer
- 4.) Once your computer has booted, open up the Windows command prompt by click on the icon for it on your desktop or start bar (Start > Run > CMD)



- 5.) Once you have the command prompt open. Enter the following command –  
*ping 72.36.2.1*  
You should 4 replies as shown in the example below



```
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

H:\>ping 72.36.0.5

Pinging 72.36.0.5 with 32 bytes of data:
Reply from 72.36.0.5: bytes=32 time=2ms TTL=62
Reply from 72.36.0.5: bytes=32 time=1ms TTL=62
Reply from 72.36.0.5: bytes=32 time=1ms TTL=62
Reply from 72.36.0.5: bytes=32 time=1ms TTL=62

Ping statistics for 72.36.0.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms

H:\>
```

If you do not see 4 replies, then please contact ACT technical support at the Help Desk number included in your install package.

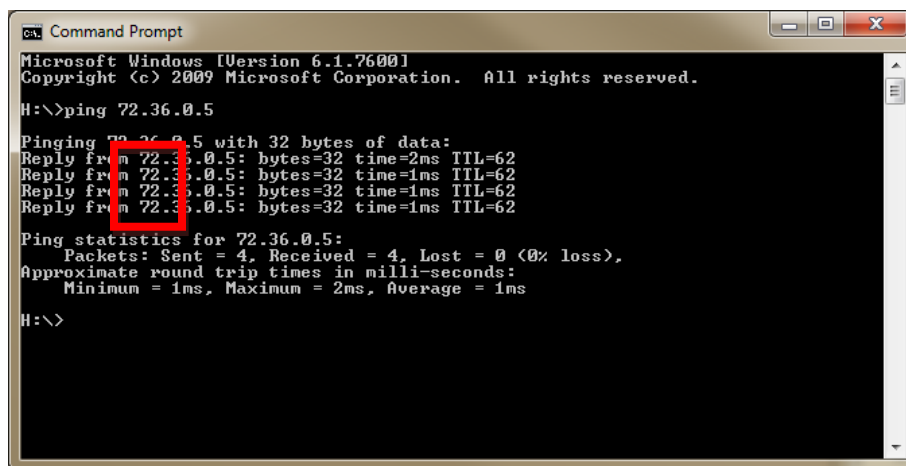
## Verify that you have connectivity to the ACT primary DNS Server –

- 1.) Turn on your computer
- 2.) Once your computer has booted, open up the Windows command prompt by click on the icon for it on your desktop or start bar (Start > Run > CMD)



Once you have the command prompt open. Enter the following command –  
*ping 72.36.0.5*

You should 4 replies as shown in the example below



```
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

H:\>ping 72.36.0.5

Pinging 72.36.0.5 with 32 bytes of data:
Reply from 72.36.0.5: bytes=32 time=2ms TTL=62
Reply from 72.36.0.5: bytes=32 time=1ms TTL=62
Reply from 72.36.0.5: bytes=32 time=1ms TTL=62
Reply from 72.36.0.5: bytes=32 time=1ms TTL=62

Ping statistics for 72.36.0.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms

H:\>
```

If you do not see 4 replies, then please contact ACT technical support at the Help Desk number included in your install package.

## ACT WiMAX Troubleshooting Bandwidth Verification

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If you are experiencing slow speeds with your WiMAX service, please perform a speed test to verify the bandwidth of your local loop. This will help ACT technicians isolate the issue.

### Verifying your bandwidth settings –

- 1.) Turn on your computer
- 2.) Once your computer has booted, open up a web browser, such as Internet Explorer or Firefox



- 3.) Once you have the web browser open, navigate to the ACT Speed Test site by entering <http://speedtest.actaccess.net> in the browser address bar



- 4.) Click on the Begin Test button and a Download and Upload test will take place. When it is finished, the results will be displayed. As you can see, the below test resulted in ~ 50 Mbps download and ~ 50 Mbps upload. Your results may vary depending on the package to which you are subscribed. Please report your results

