Screamin' Fast Broadband and Great Sounding ePhone Service

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Rev. 1.01
1.01 – Added Stack Reset Information

How to check a Windows PC Connection to the Internet

<u>Overview</u>

When a customer reports that he cannot get onto the internet and the tech has confirmed that the Antenna is up and that a DHCP lease has been issued and acquired (from the antenna's perspective), the following is the debug procedure to follow:

Instruct the customer as follows

1) If customer PC is plugged directly into AireBeam's Internet cable, jump to step 3.
2) Customer is using a wireless router. So, confine customer repair activities to cycling the power on the wireless router and then after about 2 minutes, disconnect and then reconnect to the router.
    a. Once reconnected, open customer web browser and type: www.google.com and press ENTER. The GOOGLE home page should load. Did it?
    b. IF so, the problem is probably customer router. Contact the manufacturer and have them walk customer through upgrading the firmware, if an upgrade is available
    c. If an upgrade is not available, suggest that customer buy a new router. But, before we take that step, please follow step 3 below.

3) If customer is not using a wireless router, then, follow these instructions, whenever customer cannot get on the Internet. An internet connection is a chain of connections spanning the US or Globe, so we need to find out where the chain is broken.

    a. With customer left hand, hold down the FLAG Key

    ..the one in the middle
    b. With customer right hand, while still holding down the flag key, press the letter "R", opens a RUN BOX
    c. If it is not already there, type: cmd and click OK.. That will open a black box with a blinking cursor…..collectively, these steps are referred to as "Open a Command Prompt" and when necessary, a tech will ask customer to "Open a command prompt"
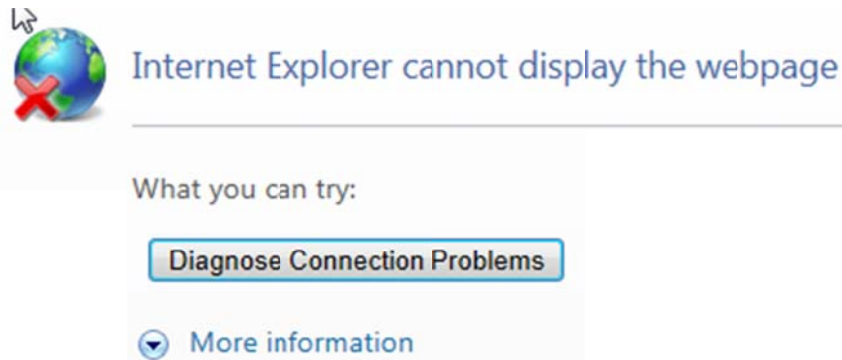   d. Type: ipconfig – pronounced "EYE PEE CONFIG" and press ENTER

e. If customer PC is plugged into our antenna via a cable customer should then look at the first instance of Ethernet Adapter and check that customer IPV4 address is 192.168.X.Y where X: is 1-254 and Y is 2 to 254.

f. Also check that customer Default Gateway is set to 192.168.X.1. If either of these conditions is NOT TRUE, customer PC is failing to acquire its address from our Antenna. Report same to customer support technician along with the value of customer IPV4 address and customer mask (which should be 255.255.255.0) and customer gateway.

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Ethernet adapter Local Area Connection 3:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::14a7:9574:ae2a:b892%24
   IPv4 Address. . . . . . . . . . . : 172.30.0.18
   Subnet Mask . . . . . . . . . . . : 255.255.255.252
   Default Gateway . . . . . . . . . :
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g. If customer PC has a correct IP, mask and gateway, then proceed to the next step.

h. Type: ping {customer Default Gateway address from above, such as 192.168.1.1}

    i. Customer should see 4 replies with no time outs. If customer see one or more Request Timed Out, then customer PC is not communicating with the Antenna. Report same to customer support technician.

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Reply from 192.168.1.1: bytes=32 time=3ms TTL=64
Reply from 192.168.1.1: bytes=32 time=5ms TTL=64
Reply from 192.168.1.1: bytes=32 time=4ms TTL=64
Reply from 192.168.1.1: bytes=32 time=3ms TTL=64
```

    ii. Assuming that customer PC reports the above, type: ping 10.32.1.254 and press ENTER. IF customer get 4 timeouts, report same to customer support technician. If customer get replies, proceed

    iii. Type: ping 199.66.168.1 and press ENTER. If customer get 4 replies, proceed. If customer get 4 time outs, report same to customer support technician.

    iv. Type: ping www.airebeam.com. If customer get 4 replies, customer connection to the Internet is working. If customer get time outs, report same to customer support technician

    v. Lastly, open customer web browser and type: www.google.com and should go to Google. IF customer are now on the Internet and customer are/were using a router, then problem was likely customer router. If customer are/were using a router, choose one of the following options:

        1. Call the manufacturer and tell them that customer router frequently fails to connect to the Internet until it is power cycled and what do they recommend that customer do.

        2. Buy a new router. AireBeam sells a good one which we can ship to customer or have one of our techs deliver and configure for customer. TO choose this option, contact us by one of the following methods:

            a. Email router@airebeam.com and request a new router. One of our techs will contact customer;

            b. Text 313131 Airebeam with customer lastname, first name and "I want to buy a new router"

            c. Call us at 520-233-7400 and advise the CSR that customer would like to buy a new router.

    vi. If the page refuses to load and customer get an error from customer web browser like the one below:

And customer PC is directly plugged into AireBeam's service cable, then go to the step 5. Else, go to step 4.

4) Customer PCs Windows Software may be corrupted. To find out which, we need to bypass customer router. Go to the next step below.
   a. Unplug the gray cable that runs from AireBeam's black power supply to customer router
   b. Plug that cable directly into customer PCs Ethernet jack
   c. Reboot customer PC
   d. Open customer web browser and type: www.google.com and press ENTER. If the page loads, customer router is bad and customer should jump to step 3, v, 1 above and follow those instructions.
   e. If the page does not load, then jump to step
   f. Either have customer PC repaired or buy a new one, depending upon how old the PC is and what version of Windows it is running.
      ***** END OF PROCEDURE *****

5) Customer are here because customer conducted the procedure in Step 3 with AireBeam's Ethernet cable plugged into customer PC. There are now two possibilities:
   i. AireBeam's antenna is not properly issuing customer PC an IP Address or
   ii. Customer PC's Windows Software may be corrupted.
      1. If customer Windows version is PRE-Vista, open a command prompt and issue the following command:
         a. netsh winsock reset
      2. If customer Windows version is Vista, /7 or 8, open a command prompt and issue the following command: **netsh int ip reset**
   iii. Retest. If not resolved, proceed to step b below.
   b. Contact AireBeam and advise that customer preformed the tests outlined in this procedure and that customer is at Step 5c and customer request a service call.
      i. AireBeam will schedule an appointment and come to customer home
      ii. We will test the antenna using our technician's PC
      iii. If the tech's PC receives an IP address correctly from the antenna, the tech will:
         1. Replace customer antenna just as a precaution
         2. Retest customer PC. If it works, the problem is resolved
         3. If the test fails, customer PC needs to be repaired or replaced
            a. If customer chooses repair, we recommend Doug's Laptop Shop on Pinal Blvd in Casa Grande
            b. If customer chooses replace, we recommend Dell PC