

## Basic Internet Troubleshooting

### Can't Connect to the Internet?

If you are unable to connect to the internet, there are a few troubleshooting techniques you can try that may get you back up and working without a visit from a technician.

### **THE 1<sup>ST</sup> THING TO DO WHEN YOUR INTERNET GOES OUT IS TO TRY A SIMPLE REBOOT.**

#### **Quick Reboot Guide**

- 1) Turn off your computer by selecting log off and then shut down or restart
- 2) If you have any routers or other transport devices connected to our equipment, unplug them
- 3) Unplug your modem or antenna
- 4) Wait at least 1 Minute
- 5) Plug your modem or antenna back in and wait for it to fully initialize- this will take about 2 minutes
- 6) Plug your router or other transport device back in and wait for it to fully initialize- this will take about 2 minutes
- 7) Turn your computer back on and try connecting again- make sure your Modem or Antenna is powered on as well as your Router or Other Transport Device

*Note: If the lights are not on correctly, ensure that all the cables are plugged in and connected tightly. While rebooting, the Power light will be **red** until the reboot is complete.*

If you still cannot connect to the internet after rebooting your devices, the modem may be bad and need to be replaced, but first you should try and IP Config to determine if you have an IP address, and then do a Ping Test to see if your internet connection is down or if your internet browser is not functioning properly.

If all lights are on and they still cannot connect to the internet, please try:

- (1) IP Config
- (2) Ping Test
- (3) Trace Route

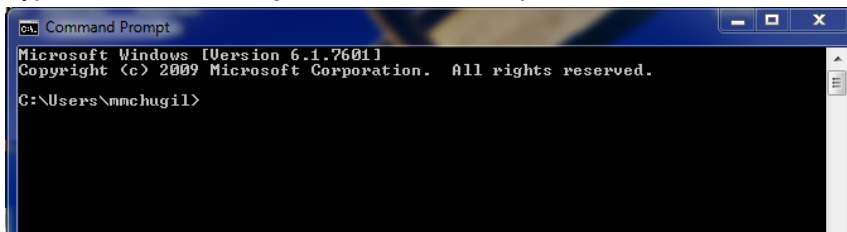
**(1) IP CONFIG:** Run an **IP Config** to determine if you have an IP address. An IP Config shows a summary version of IP information

To run an IP Config:



Click on the Start Icon

Type **Command Prompt** in the search box, press enter and this box will appear



Type **ipconfig** behind your user name, press enter and this box will appear:

```
Command Prompt

Ethernet adapter Local Area Connection 2:
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :

Ethernet adapter Local Area Connection:
Connection-specific DNS Suffix . : gci.com
Link-local IPv6 Address . . . . . : fe80::5c5b:2861:f669:d504%11
IPv4 Address. . . . . : 10.180.185.85
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 10.180.185.1

Tunnel adapter isatap.gci.com:
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . : gci.com

Tunnel adapter isatap.{ECDAAEA9-BECB-43F2-93B7-786C219DA4E9}:
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :

C:\Users\mmchugil>
```

If you have an IP Address, go to (2) Ping Test.  
If you do not have an IP Address, how are you connected- direct connection or via a wireless router?  
If connected to a wireless router, try direct connecting to your computer.  
Ensure that all cables are tightly plugged in to the correct ports.  
Reboot/power cycle equipment.  
Redo the IP Config- do you have an IP address now? If not, contact UUI Customer Care.

*Note: There are multiple adapters on computers and you may have to scroll up in the box to see the IP information. Customers who are connected via a wire to their router or modem will show the info under Local Area Connection, customers connected to their router via WiFi should see the settings under Wireless Adapter.*

**(2) Ping a Gateway:** See if you can ping a Gateway.

*A Ping says “hello” to a particular device and records the time it took for the device to say “hello” back. A gateway joins two networks so the devices on one network can communicate with the devices on another network. Without gateways you wouldn’t be able to access the internet and send data back and forth. A gateway can be implemented in software, hardware or a combination of both. For homes or small businesses, a router is the gateway device. The router connects all the devices in the home or business to the internet. To Ping a gateway device, you must know the IP Address of that device.*

**To Ping a Gateway:**



Click on the Start Icon

Click on Run (if you have a newer version of windows, type CMD in the search box and skip the next step).

In the pop up box type “cmd” (some older versions of windows require you to type “command”).

At the next prompt type “ping” then a space, then the Gateway IP Address.

```
C:\Users\khenson>ping 10.180.185.1

Pinging 10.180.185.1 with 32 bytes of data:
Reply from 10.180.185.1: bytes=32 time=8ms TTL=247
Reply from 10.180.185.1: bytes=32 time=8ms TTL=247
Reply from 10.180.185.1: bytes=32 time=7ms TTL=247
Reply from 10.180.185.1: bytes=32 time=7ms TTL=247

Ping statistics for 10.180.185.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 7ms, Maximum = 8ms, Average = 7ms
```

If the ping was successful, go to (2a) Ping 8.8.8.8

If the ping was not successful, how are you connected- direct connection or via a wireless router?

If connected to a wireless router, try direct connecting to your computer.

Ensure that all cables are tightly plugged in to the correct ports.

Reboot/power cycle equipment. Can you Ping a Gateway now? If not, contact UUI Customer Care.

Example of a successful ping message:

*2 packets transmitted, 2 packets received, 0% loss*

Examples of error messages for unsuccessful pings are:

*100% packet loss, packets are rejected or packets did not reach host*

*Note: If you **can** successfully ping a website but when you try connecting to the internet your connection times out or you get a "page cannot be displayed" message, you have a problem with your internet browser. These problems can be caused by Virus/Spyware infections or corrupt program files in the internet browser program. Reinstalling or doing a repair install on your browser program (if possible) can fix the problem by removing the Virus/Spyware infections from your computer and keeping it safe in the future.*

If you **cannot** successfully ping a website, in general you are not getting a connection to the internet. If you have a router, hub, or other transport device, try bypassing it. Disconnect the transport device and plug your Ethernet cable directly into your computer from your modem. If you can connect to the internet after disconnecting the transport device, then most likely your transport device is not configured properly. If you do not have a transportation device, or bypassing it did not work, please contact UUI Customer Care.

If your computer seems to be running slowly, taking a long time to connect to web pages, has random errors and kicks you out of programs you are using, or just doesn't seem to be running as smoothly as it used to, you could have a virus/spyware infection. It is very important to maintain the health of your computer in order to keep it running properly

**(2a) Ping 8.8.8.8:** Can you ping 8.8.8.8

If YES go to (3) Trace Route

If NO go to (3) Trace Route

**Pinging 8.8.8.8:**



Click on the Start Icon

Click on Run (if you have a newer version of windows type CMD in the search box and skip the next step).

In the pop up box type "cmd" (some older versions of windows require you to type "command").

At the next prompt type “ping” then a space and then 8.8.8.8

```
C:\Users\khenson>ping 8.8.8.8
Pinging 8.8.8.8 with 32 bytes of data:
Reply from 8.8.8.8: bytes=32 time=65ms TTL=52
Reply from 8.8.8.8: bytes=32 time=65ms TTL=52
Reply from 8.8.8.8: bytes=32 time=65ms TTL=52
Reply from 8.8.8.8: bytes=32 time=63ms TTL=52

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 63ms, Maximum = 65ms, Average = 64ms
```

The prompt will show the results of the ping test:

- a) If the ping was successful, there will be a total of 4 signals sent. If there are 4 “Reply from” lines then you have a good connection with the device you are connecting to.
- b) If one or more of the “Reply from” lines say “Request timed out”, this means one or more of the signals did not get a reply- try pinging again. If you consistently see “Request timed out” on your list, you are not receiving a good signal from the device you are pinging.
- c) If you do not get any reply from lines and the prompt just says “Request timed out”, this means that the device or URL you are trying to connect to is offline, and not able to send and receive signals.

**If you can** successfully ping a website but when you try connecting to the internet your connection times out or you get a “page cannot be displayed” message, you have a problem with your internet browser. These problems can be caused by Virus/Spyware infections or corrupt program files in the internet browser program. Reinstalling or doing a repair on your browser program (if possible) can fix the problem by removing the Virus/Spyware infections from your computer and keeping it safe in the future.

**If you cannot** successfully ping a website, in general you are not getting a connection to the internet. If you have a router, hub, or other transport device, try bypassing it. Disconnect the transport device and plug your Ethernet cable directly into your computer from your modem. Do an IPCONFIG again to make sure you are still getting an IP address after changing around the cables. If you can connect to the internet after disconnecting the transport device, then most likely your transport device is not configured properly. If you do not have a transportation device, or bypassing it did not work, contact UUI Customer Care.

### (3) Traceroute: Can you Traceroute 8.8.8.8

*A Traceroute records the amount of time it takes a ping to get to each router that is between the machine sending the ping and the pings destination.*

### Running a Traceroute

Click on the Start Icon 

Click on Run (if you have a newer version of windows type CMD in the search box and skip the next step).

In the pop up box type “cmd” (some older versions of windows require you to type “command”).

At the next prompt type “tracert” then a space then 8.8.8.8

```
C:\Users\khenson>tracert 8.8.8.8
Tracing route to google-public-dns-a.google.com [8.8.8.8]
over a maximum of 30 hops:
  0  *  *  *  192.168.1.1
  1  *  *  *  Request timed out.
  2  *  *  *  Request timed out.
  3  *  *  *  Request timed out.
  4  *  *  *  Request timed out.
  5  *  *  *  Request timed out.
  6  *  *  *  Request timed out.
  7  *  *  *  Request timed out.
  8  *  *  *  Request timed out.
  9  *  *  *  Request timed out.
 10 *  *  *  Request timed out.
 11 68 ms 74 ms 61 ms google.nwax.net [198.32.195.34]
 12 140 ms 78 ms 61 ms 108.170.245.97
 13 79 ms 79 ms 73 ms 108.170.233.123
 14 62 ms 78 ms 71 ms google-public-dns-a.google.com [8.8.8.8]
Trace complete.
```

If the Traceroute is successful, you have internet. Open a browser and pull up some sites. If the Traceroute is unsuccessful, please contact UUI Customer Care (let us know what hop it stopped on and the last IP you received a response from).

### Computer Running Slowly?

If your computer is running slowly, run a speed test using [speedtest.gci.com](http://speedtest.gci.com). A speed test tells you how fast you are getting through the UUI/GCI network. Keep in mind that our speeds are sold as “up to” speeds. If you are getting through the GCI network with good speeds, this confirms that we are providing good speeds, and the slowdown could be happening outside of our network or you could have a virus on their computer.

If you are not getting good speeds through the GCI network, run a traceroute, and contact UUI Customer Care so we can determine where the slowdown is happening.

*Note: Your plan speed is the maximum speed expected to be achievable for that plan. Several factors will affect the actual speed you experience. These factors include, but are not limited to: the capability of the device you're using to access the Internet; the application and/or server/web site you are accessing; limitations of Wi-Fi and other equipment you may be using; other active users and/or devices on your home network at the same time; routers on the public Internet being over-loaded by high demand – particularly during peak hours of the day.*

*Due to the fact that UUI's broadband speeds meet the capability of many home networks and devices, running speed tests from a single device is no longer an effective measure of service quality. If you feel there may be issues impairing your service, please contact UUI Customer Care as they have the tools to identify any issues that may exist.*

### Wireless Networks

When you set up a wireless network in your home or business it is important to secure the connection. A Secured Network allows only authorized people to use your internet connection and access information on your network. An Unsecured Network allows anyone near your home who has a wireless device to be able to use your internet connection to connect to the internet as well as access information on your network.