



Internet Connection Guide



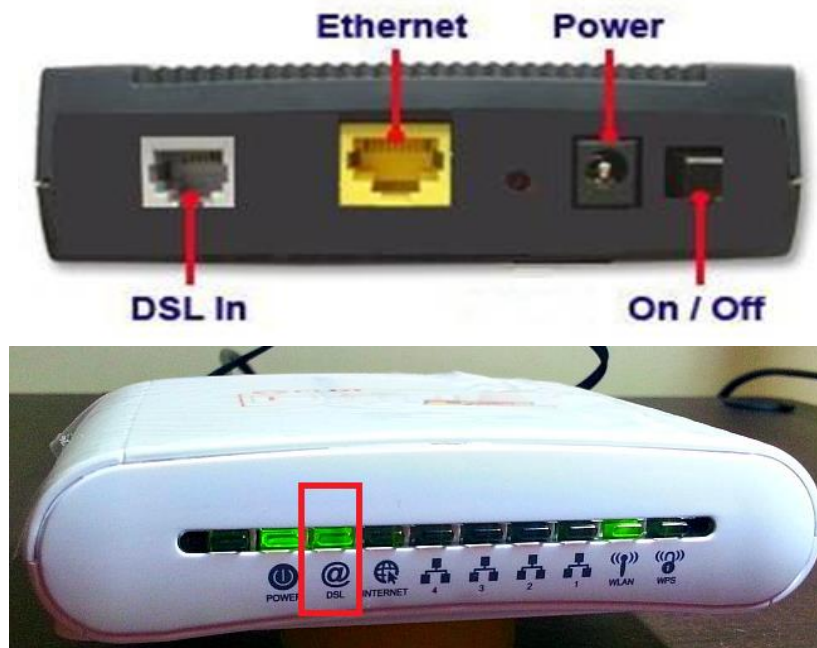
**Prepared by: SHATEL Information and Communication
Technology Group**

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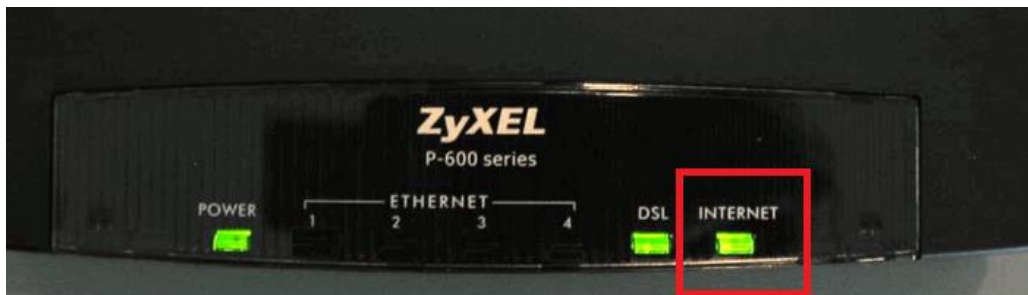
In case you couldn't open any webpages, you should follow the instructions below:

1. First of all, make sure that the phone line is correctly connected to DSL port of your modem.



If the connection is made correctly, DSL light on your modem should be on and steady; otherwise, it will blink or go off. To check this problem, [see the manual](#).

2. Next, check PPP/INTERNET light. PPP light is supposed to be on (or blinking).



If PPP/INTERNET light is off, [see the manual](#)

3. If the DSL and PPP/INTERNET lights are on, it means your modem is connected to the internet. So if you couldn't reach any webpages, the problem is with your internal network. [See the manual](#)

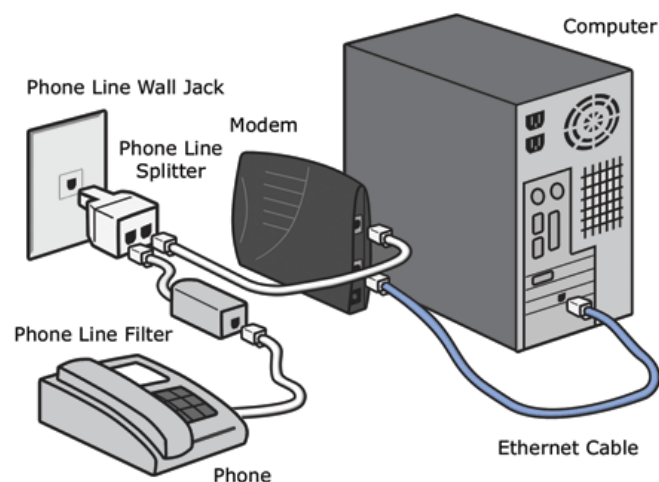
1. Down Status for ADSL light

ADSL light on modem indicates the availability of data on the phone line which is connected to the modem. This light is usually green. It should always be on and steady; otherwise, there is a problem with phone line connection.



To solve the problem, follow the instructions below:

- a. Make sure that the modem is on (power light should be solid green)
- b. Use modem's original power adapter.
- c. Make sure there is a dial tone. You can plug a telephone into the phone socket, dial a number and check the dial tone.
 - Notice that if there isn't any dial tone, you should report the problem to Telecommunication center (dial 20117 in Tehran, and 117 in other provinces)
- d. Check phone line connection. If you have just one phone outlet, you should plug in the modem and phone using a splitter. If you have more than one phone outlet, it is recommended that you plug telephone into the phone outlet using a splitter, and plug the modem directly into another outlet without a splitter.
 - Remember that you should not use telephone, fax, Caller IS, POS, etc. without a splitter anyway.

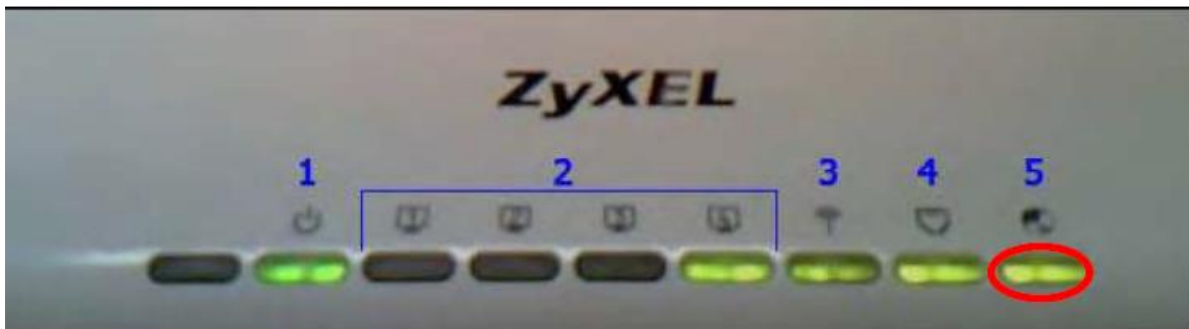


- e. Replace the socket and phone cable connected to the modem.

- f. It is needed to check the master cable which is usually placed in the telephone network interface box at your home's entrance where phone lines come in. It means that the modem should be plugged into the master phone cable and DSL line status should be checked.
- g. If the problem persists, you can call you Internet Service Provider (021-91000000)

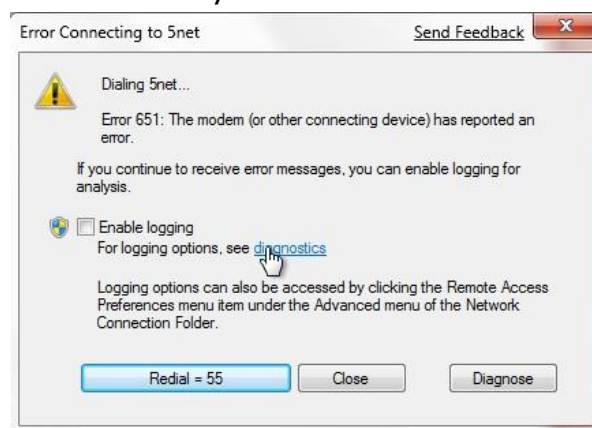
2- Down Status for PPP/INTERNET Light

If the ADSL LED is on but the PPP light on your modem is off (or not blinking), it means that there is a problem with the modem configuration.



To solve the problem, follow the instructions below:

- a. Use [modem configuration manual](#) to make sure that the modem is setup correctly.
- b. You can setup a broadband connection on your DEVICE ([see the manual](#)) and check the error codes you receive:
 - o **Error 651:** if you have received Error 651, check the list below:



- + Make sure that ADSL light is on.
- + Check that the network interface driver on DEVICE has been installed and make sure that it is enabled.



- ✚ Check "VPI" and "VCI" on modem configuration. (VPI=0 and VCI=35)
- ✚ Delete the broadband connection, and create a connection again.
- ✚ Sometimes there is a problem with your operating system, so you can restart your DEVICE or setup a broadband connection on another DEVICE.
- ✚ Temporarily disable internet security and firewall on the OS.
- ✚ If the problem persists, contact us (021-91000000)

○ **Error 691:** Error 691 occurs in the following situations:

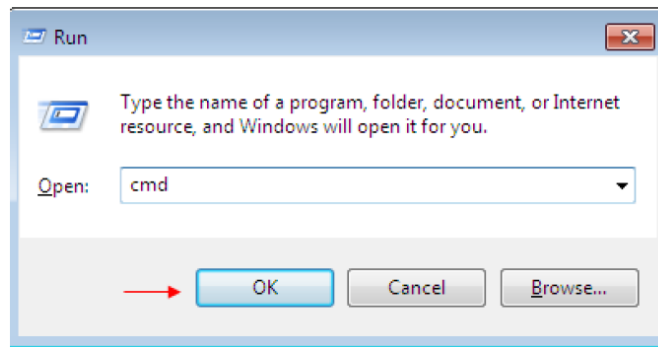


- ✚ Entering a wrong password for PPP connections
- ✚ Abuse (using PPP connection password in another modem on another phone number)

3- Check Internet Connection

If the ADSL and PPP/INTERNET lights on the modem are on, it means that your modem is connected to the internet. Now if you still couldn't open any webpages, you can pinpoint the problem.

Press **Win+R** and type "cmd" command, and press Enter. The "Command Prompt" window will open.



1. **Ping modem:** First type in the following command, and press Enter:
Ping <modem IP>

The IP is different on various brands of modems and the default IP of modems are as follows:

Zyxel: 192.168.1.1

Asus: 192.168.1.1

Paradyne: 192.168.1.1

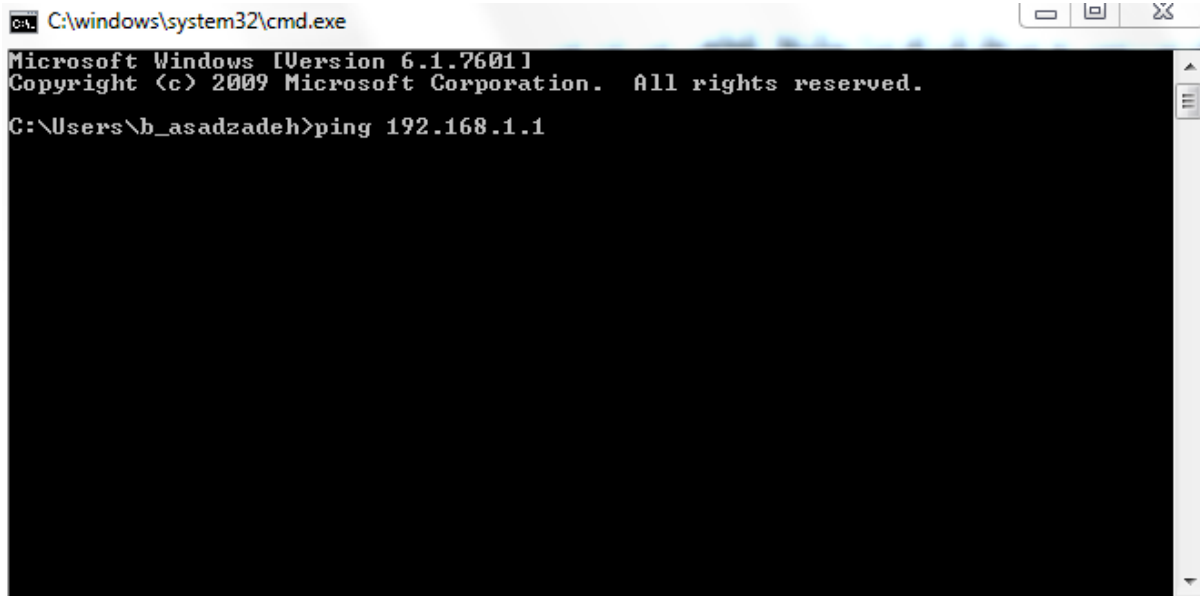
Symphony: 192.168.1.1

Billion: 192.168.1.254

LevelOne: 192.168.1.254

TPlink: 192.168.1.1

Dlink: 192.168.1.1

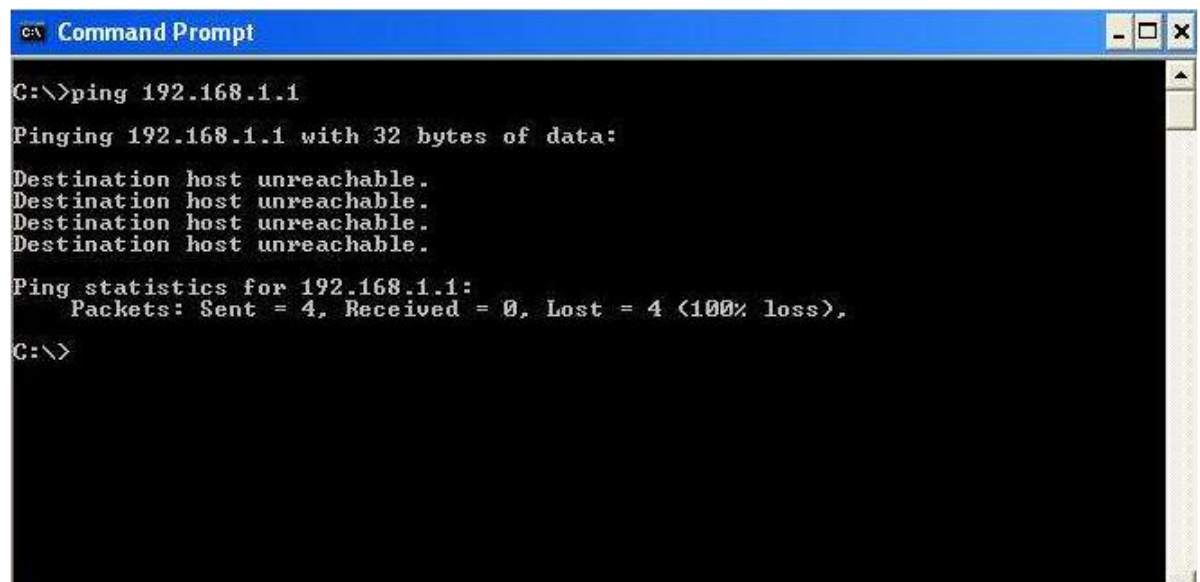


```
C:\windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\b_asadzadeh>ping 192.168.1.1
```

You will see four similar lines:

- **Destination Host Unreachable**



```
C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

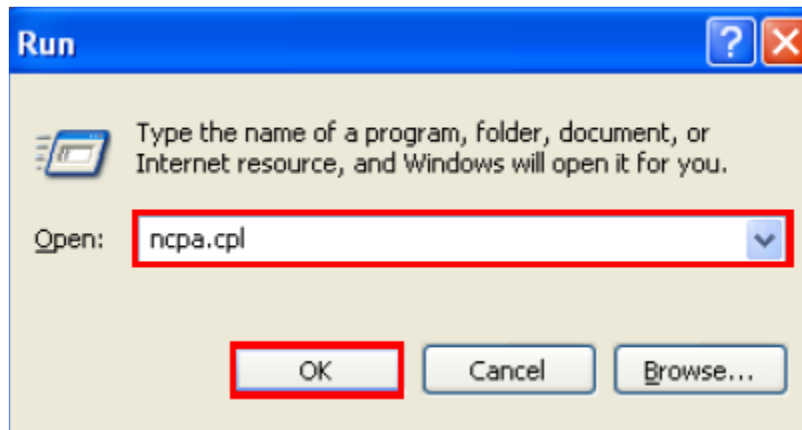
Destination host unreachable.
Destination host unreachable.
Destination host unreachable.
Destination host unreachable.

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

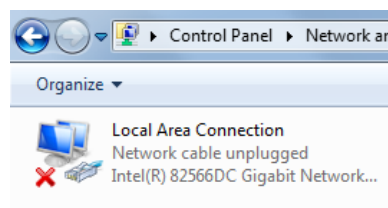
C:\>
```

This means that your system is not correctly connected to the modem. Follow the instructions below:

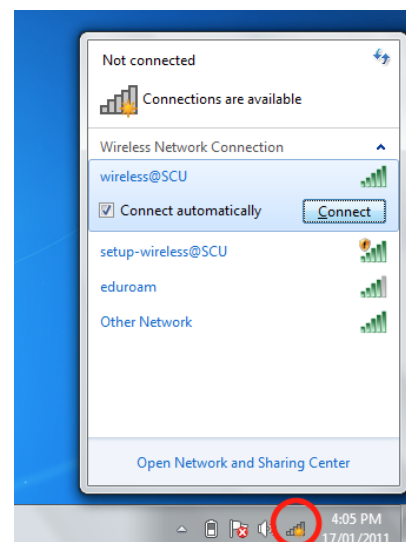
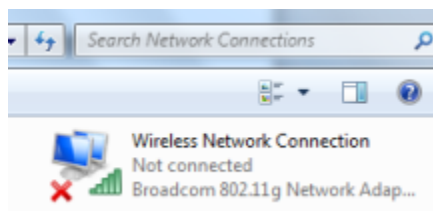
- Press **Win+R** and type in "ncpa.cpl" command, and press Enter to open "network connection" window.



- ✚ If there isn't any connection here, this means LAN/Wireless network driver should be installed.
- ✚ If there is a red cross on LAN network interface, check LAN cable connectivity at the back of your DEVICE and modem. If it is possible plug the LAN cable in to a different LAN port on modem.

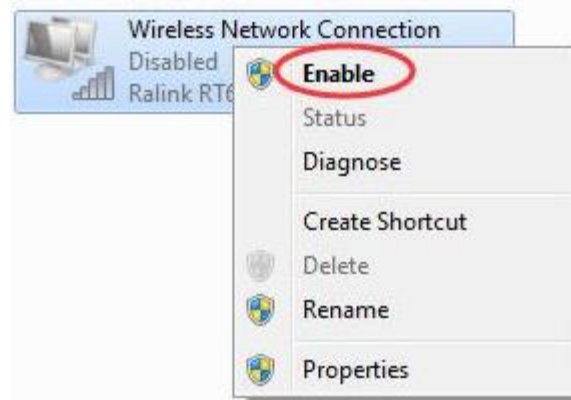


- ✚ If there is a red cross on Wireless network interface, you should click on wireless icon at the right bottom, select your wireless network's name, enter your password and connect to the modem.

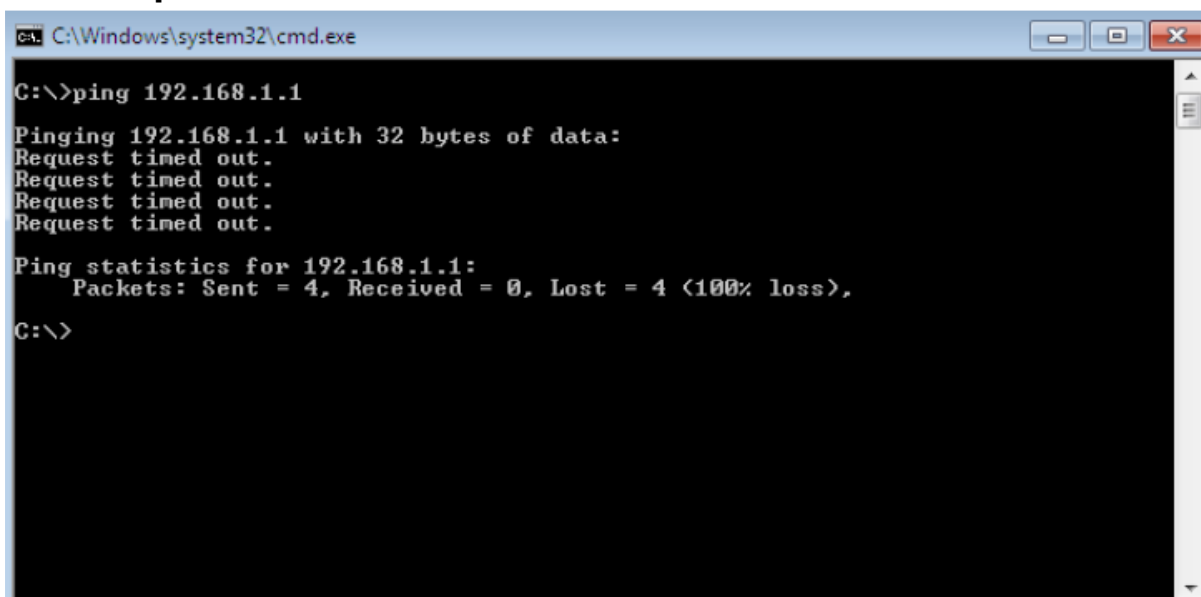


- ✚ If you couldn't see any wireless network name:
 - make sure wireless is activated on your device
 - make sure the wireless indicator is on or blinking on your modem

- move closer to your wireless modem
- If you see no wireless network name, and there isn't a red cross on Wireless Network connection, right click on wireless network and select enable.



• Request Timed Out



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

C:\>ping 192.168.1.1

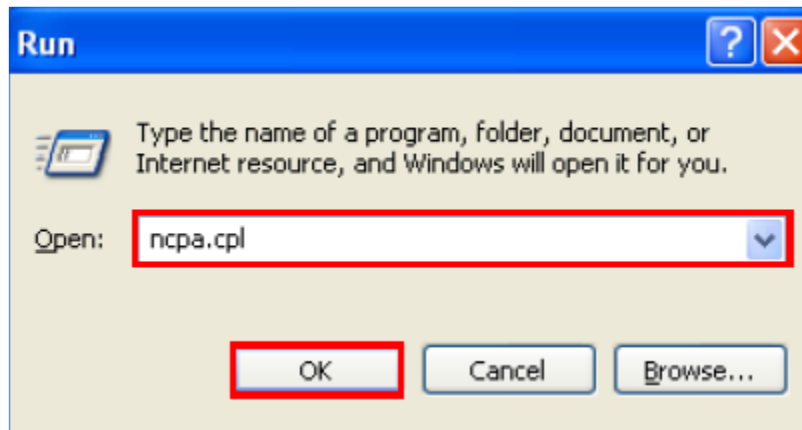
Pinging 192.168.1.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

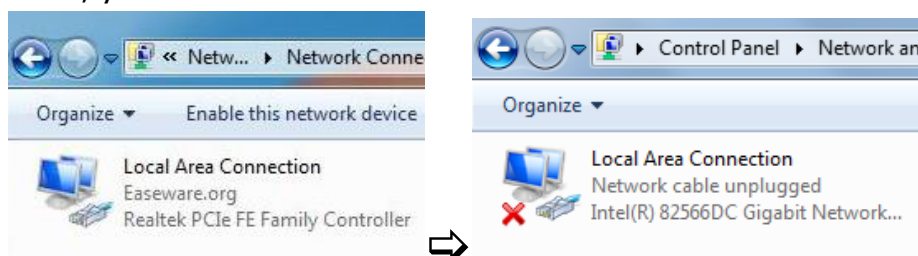
C:\>
```

Receiving this message means that there is a problem with TCP/IP settings and network interface couldn't get IP from the modem. First of all, you should identify the interface that connects to the modem.

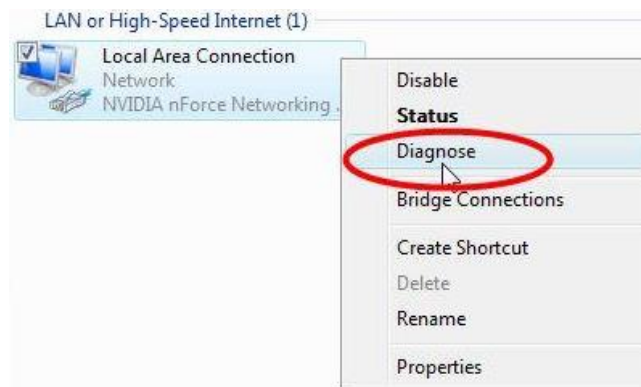
- 🔧 Press **Win+R** and type in "ncpa.cpl" command, and press Enter to open "network connection" window.



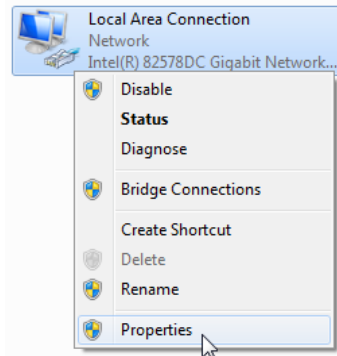
- If your system is connected with a LAN cable, whenever you unplug the LAN cable, you will see a red cross on Local Area Connection.



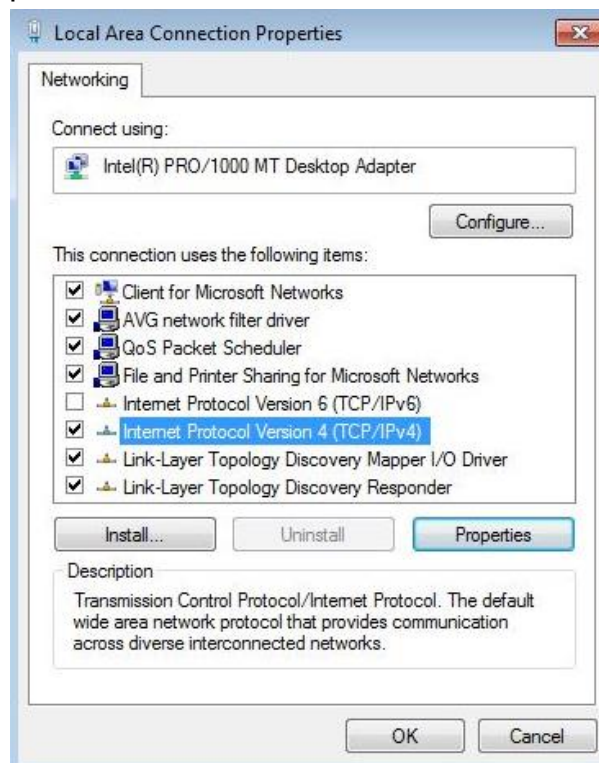
- Now plug in LAN cable again, right click on local area connection and select "Diagnose".



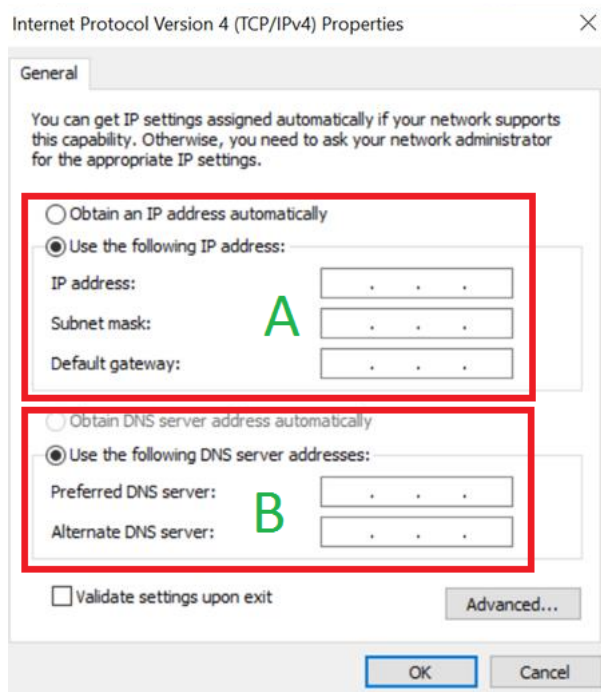
- Again ping the modem. If you receive a reply (with Time and TTL) you can go to step 2, otherwise you should set TCP/IP settings manually:
 - Right click on the interface that belongs to the modem and select "properties"



- Click "internet Protocol Version 4 (TCP/IPv4)" and click on "properties" button.



- Now you should setup TCP/IP settings as below:
 - A: IP address: 192.168.1.x while "x" is a number between 2-253
Subnet mask: 255.255.255.0
Default gateway: 192.168.1.1 (or your modem's IP address)
 - B: Preferred DNS server: 85.15.1.14
Alternate DNS server: 85.15.1.15



- **Reply from**

```
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<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
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 = 0ms, Average = 0ms

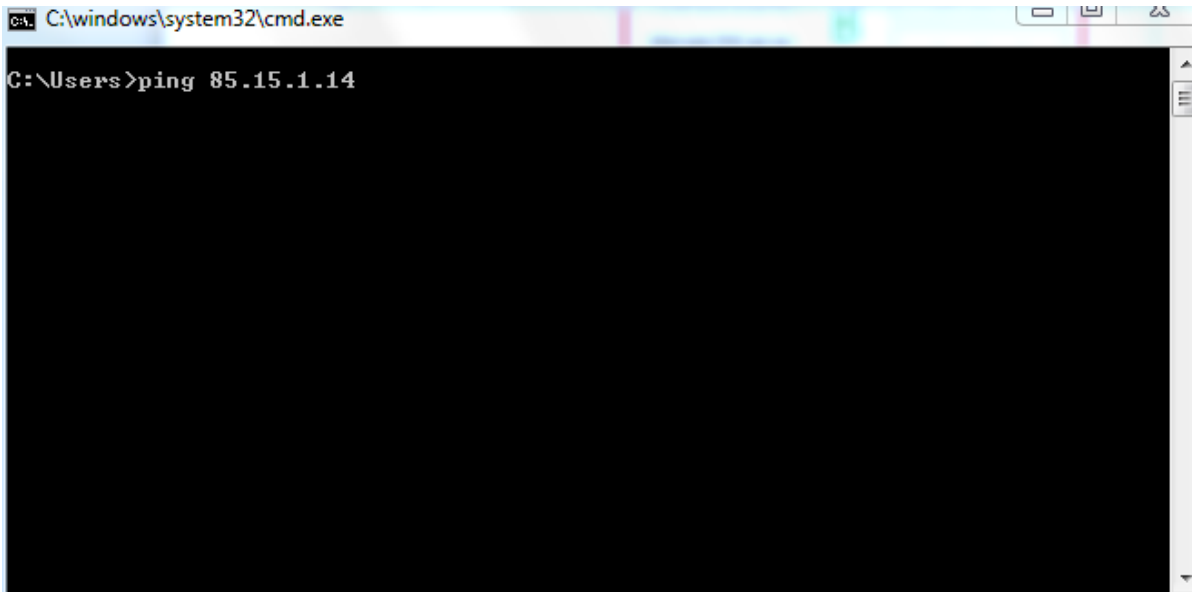
C:\>
```

Receiving Time and TTL in reply shows that you have successfully been connected to the modem.

2. Ping valid IP

Open CMD window and type in the command:

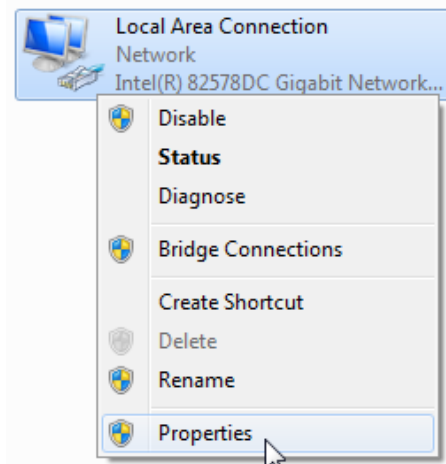
Ping 85.15.1.14



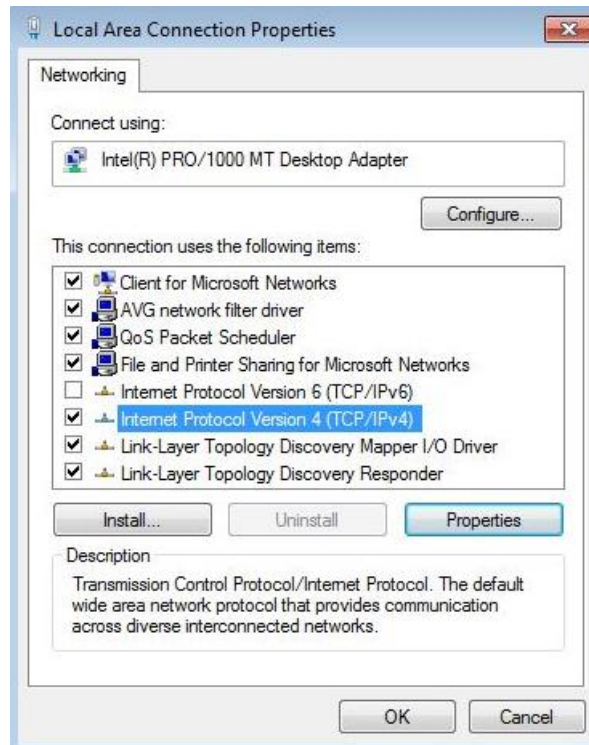
- **Request timed out**

It means the IP address that has been set in "default gateway" on your DEVICE's network interface isn't correct.

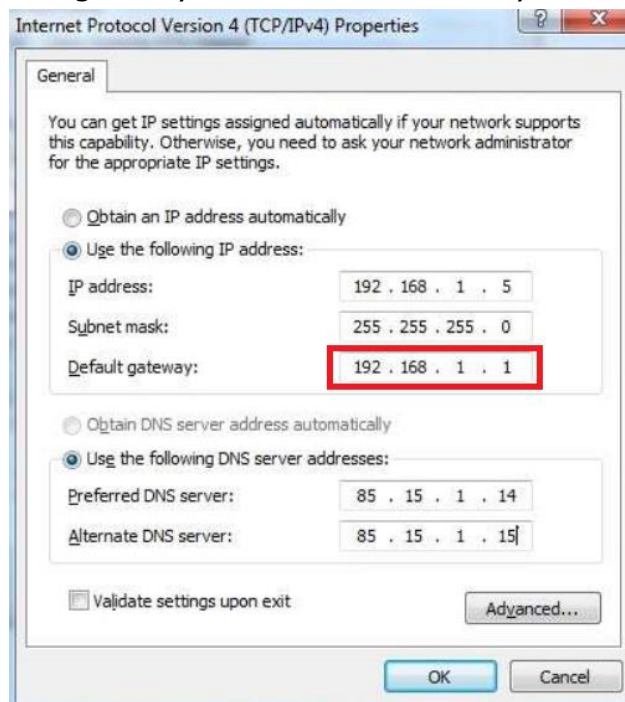
- Right click on the interface which is connected to the modem and select "properties"



- Click "internet Protocol Version 4 (TCP/IPv4)" and click on "properties" button.



- Default gateway should be identical to your modem IP address.



This IP is different on different modems and the default IP of modems are as follows:

Zyxel: 192.168.1.1

Asus: 192.168.1.1

Paradyne: 192.168.1.1

Symphony: 192.168.1.1

Billion: 192.168.1.254

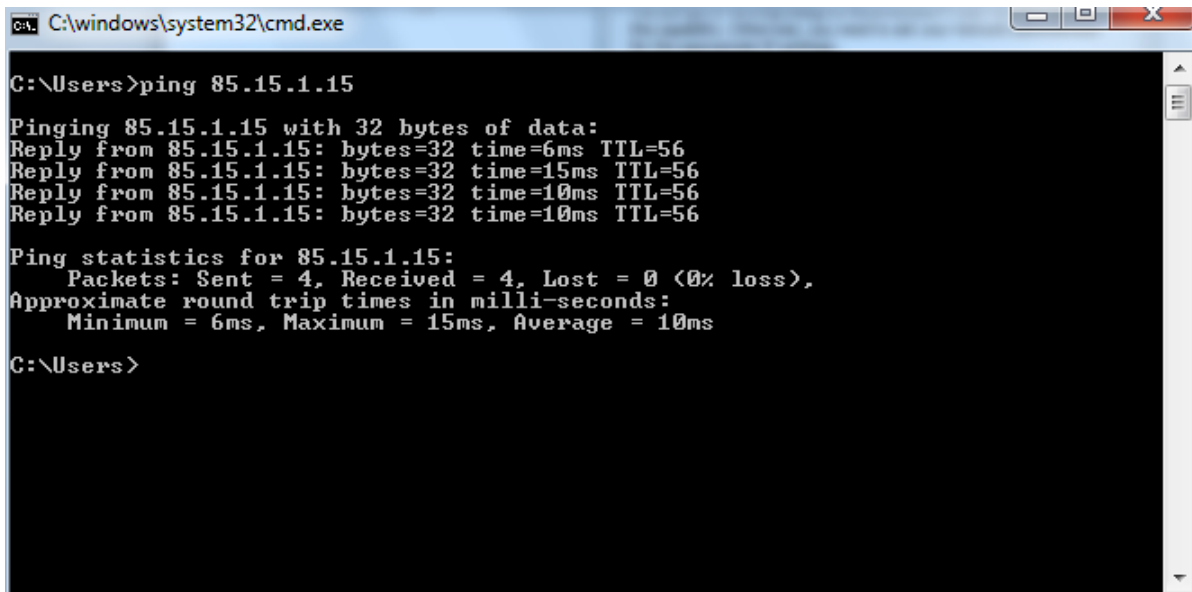
LevelOne: 192.168.1.254

TPlink: 192.168.1.1

Dlink: 192.168.1.1

- If the problem persists, make sure that "NAT" (network address translator) is enabled in modem configuration. [See the manual.](#)

- **Reply from**



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

C:\Users>ping 85.15.1.15

Pinging 85.15.1.15 with 32 bytes of data:
Reply from 85.15.1.15: bytes=32 time=6ms TTL=56
Reply from 85.15.1.15: bytes=32 time=15ms TTL=56
Reply from 85.15.1.15: bytes=32 time=10ms TTL=56
Reply from 85.15.1.15: bytes=32 time=10ms TTL=56

Ping statistics for 85.15.1.15:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 6ms, Maximum = 15ms, Average = 10ms

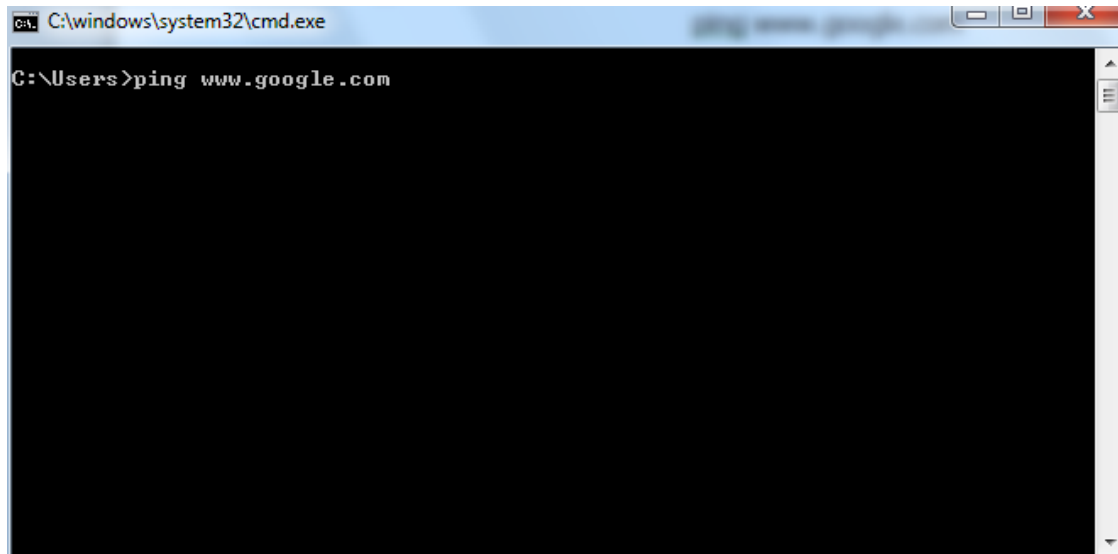
C:\Users>
```

Receiving a reply (followed by Time and TTL) shows proper connection between modem and Shatel's DNS servers. You can go to step 3.

3. Ping a FQDN such as google.com

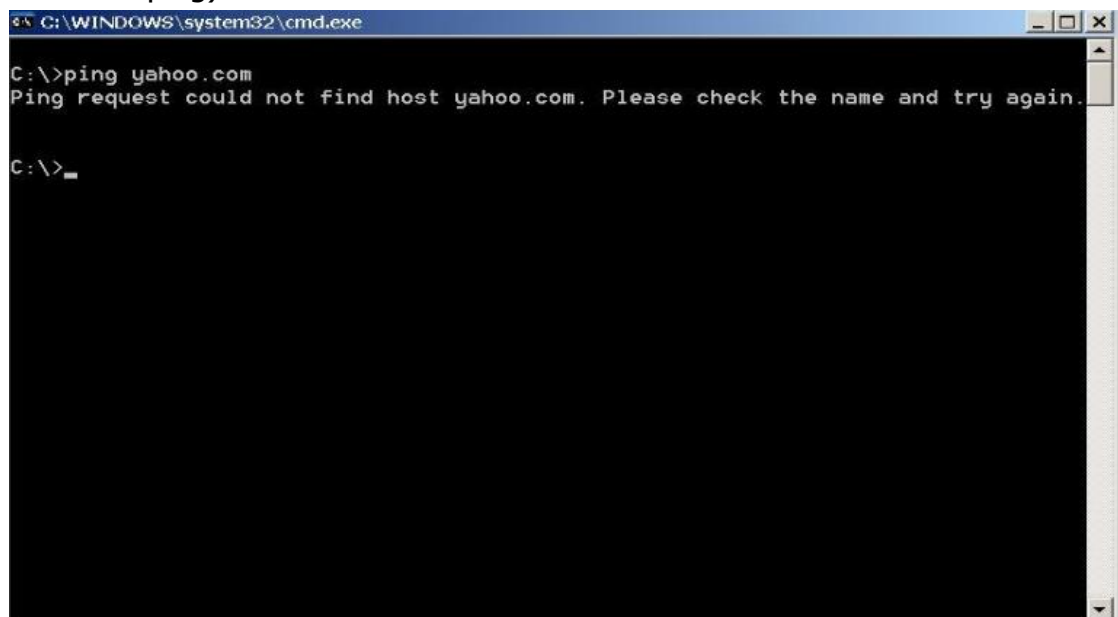
Type this command in CMD window:

ping google.com



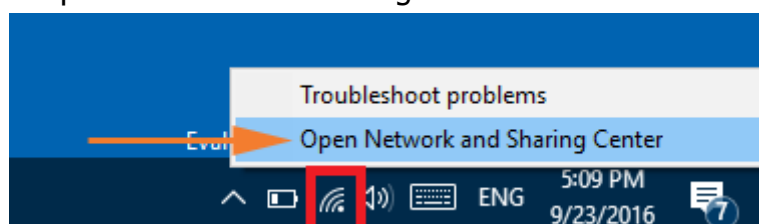
a. No reply

This is the case when the DNS server has been set wrongly or your service DNS does not work correctly (if you have payment notification, you won't get a reply from this ping).

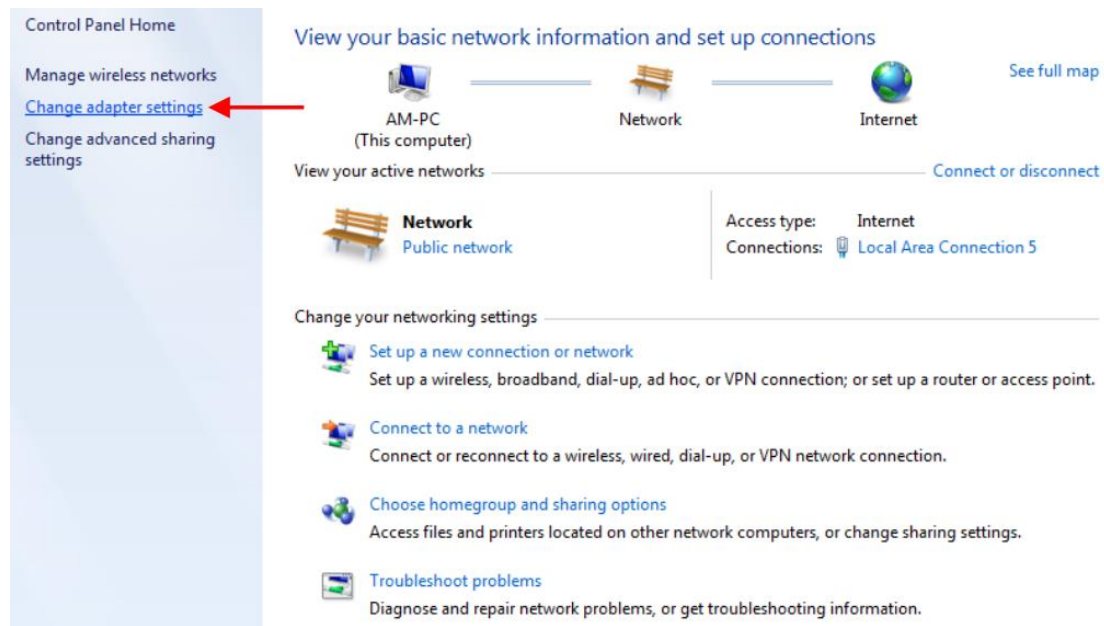


❖ Set the DNS manually:

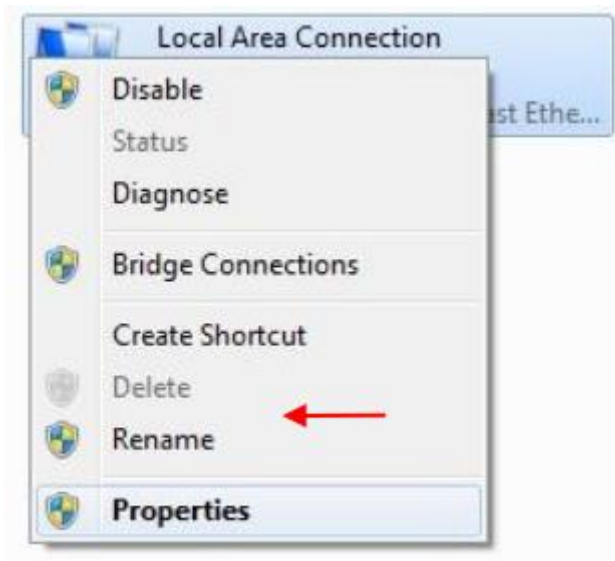
- Right click on network icon on bottom right of the screen and select "open network and sharing center"



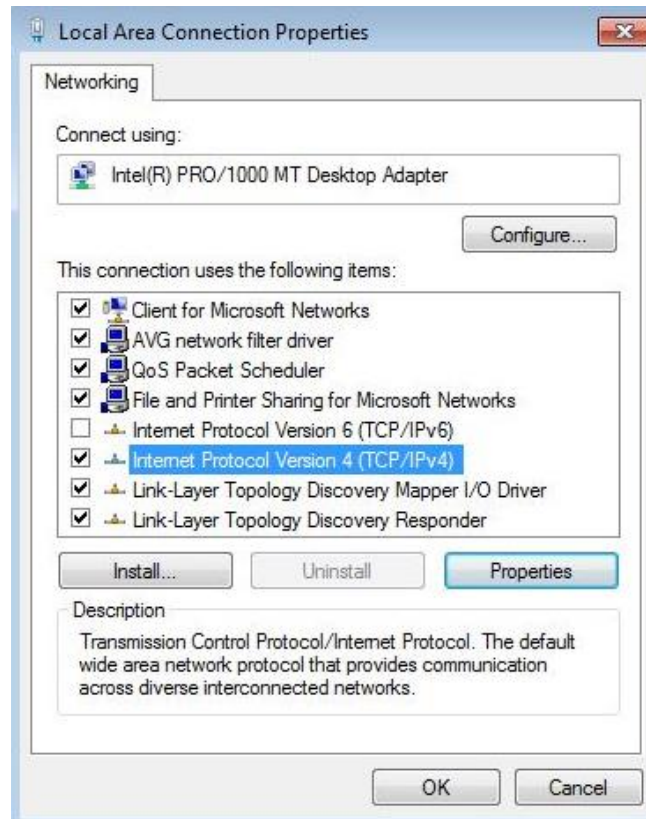
- On top left, click on "change adapter settings"



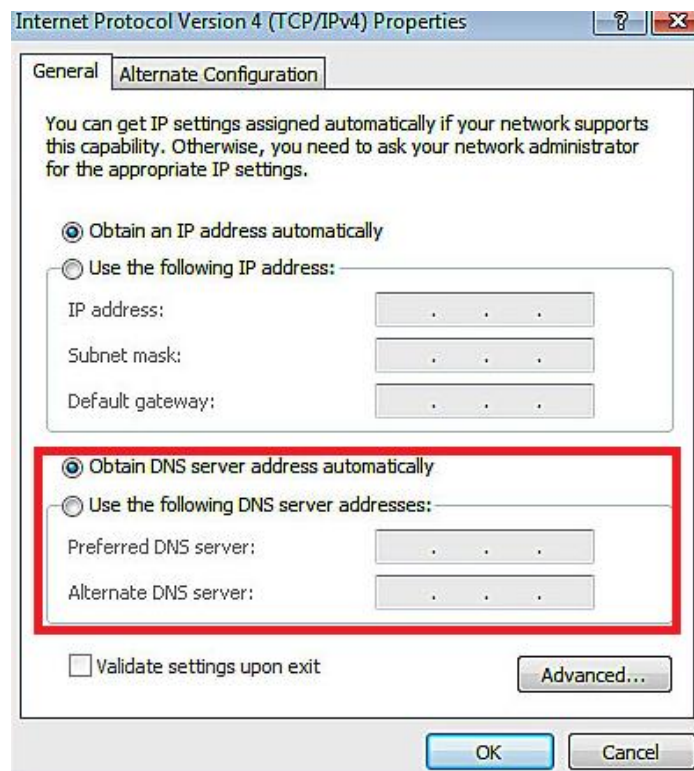
- Right click on "Local area connection" (if you have connected LAN cable to your DEVICE) or on "Wireless network connection" (if you have Wi-Fi connection) and then click properties.



- Double click on "internet protocol TCP/IP v4"



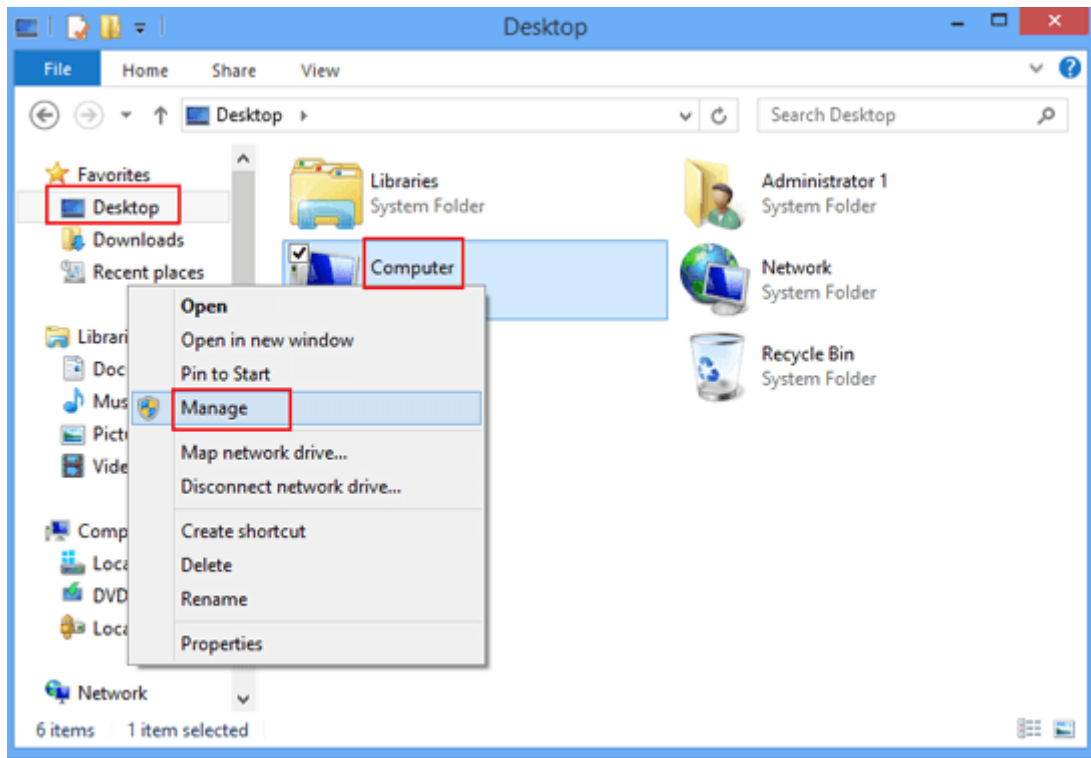
- Check "use the following DNS server addresses" and type:
Preferred DNS server: 85.15.1.14
Alternate DNS server: 85.15.1.15



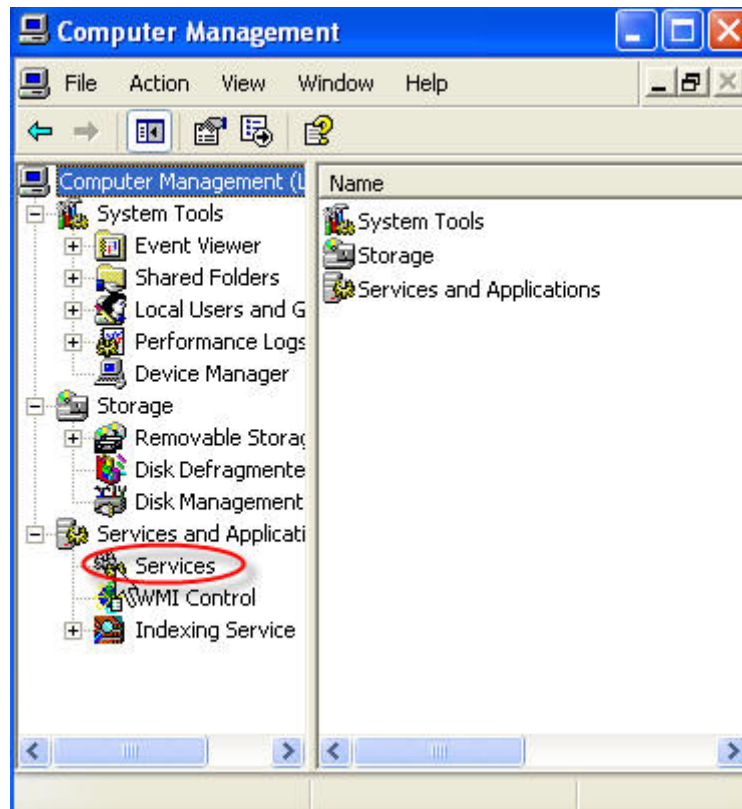
- Click ok in both windows.

❖ Reset DNS Client Service

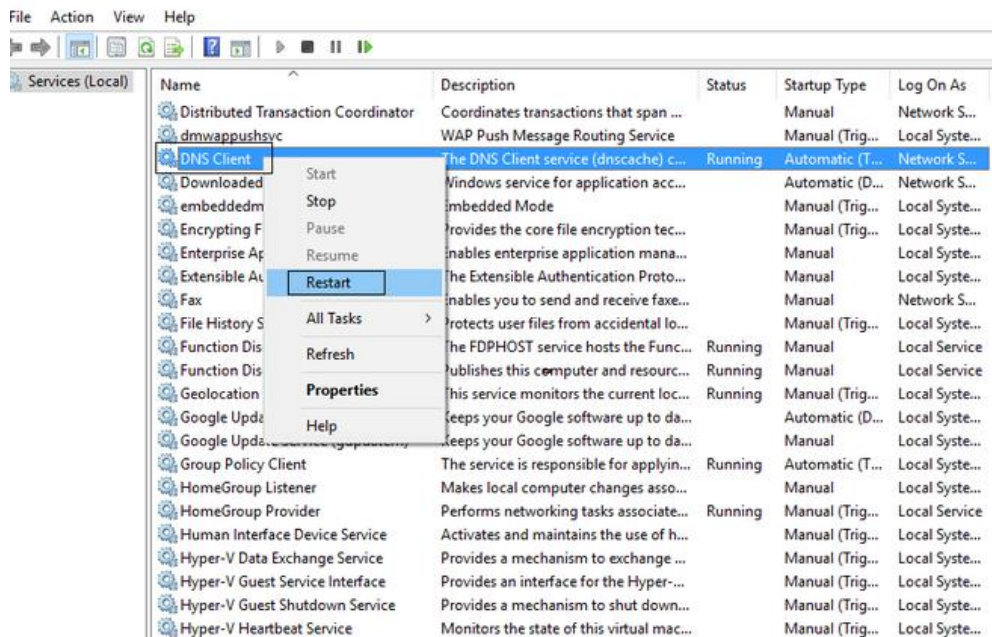
- Right click on "my computer" icon and then click "manage"



- Select "services and application" on the left and click on "services"



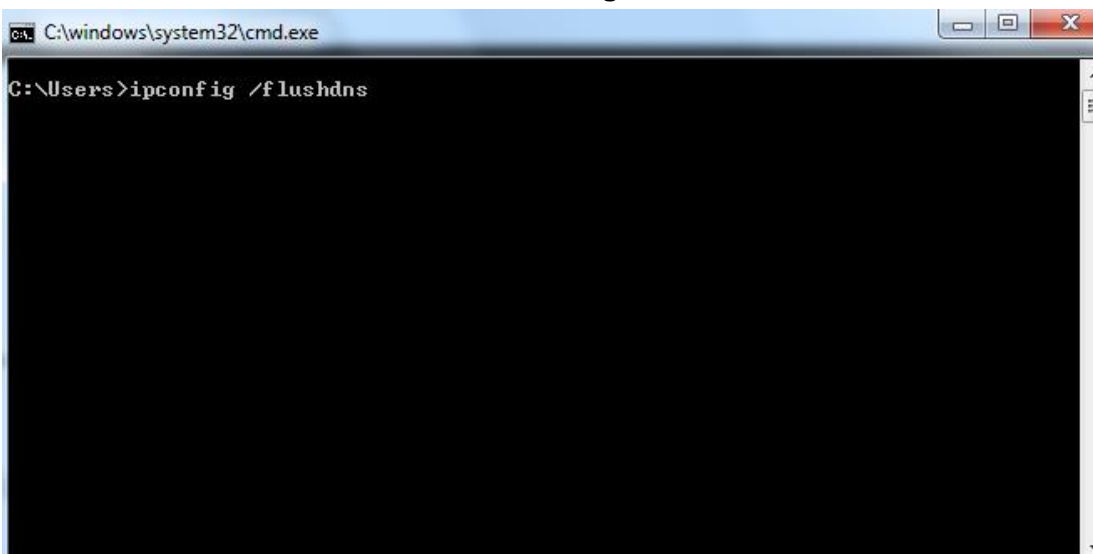
- Right click on "DNS Client" and select Restart



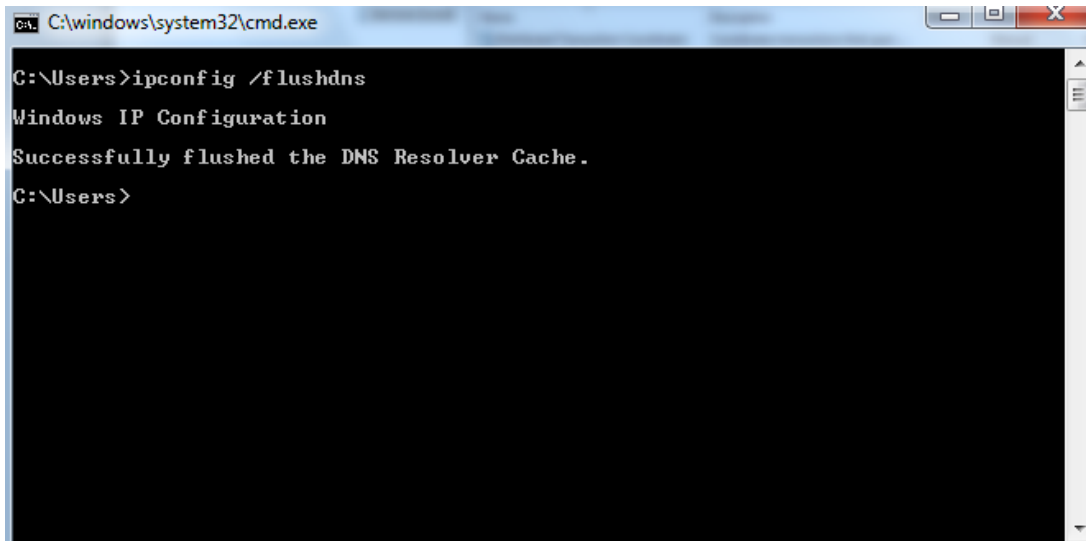
❖ Clear DNS Cache

Open CMD window and type:

`Ipconfig /flushdns`



The DNS cache will be cleared on your DEVICE.



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

C:\Users>ipconfig /flushdns

Windows IP Configuration

Successfully flushed the DNS Resolver Cache.

C:\Users>
```

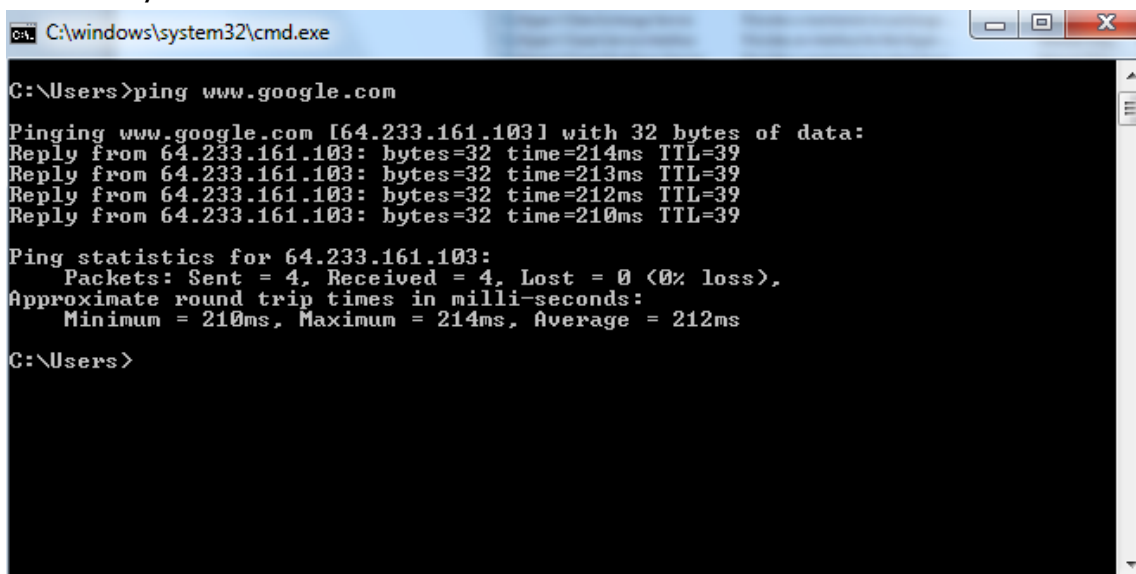
❖ **The problem might be with the modem.**

You can upgrade firmware of the modem. Then you should reset the modem to the factory settings and setup internet settings again (see step 2).

If the problem still persists, you can contact your internet service provider (021-91000000)

b. Reply from

If you received 4 lines followed by time and TTL, it means there is no problem with your modem and DEVICE.



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

C:\Users>ping www.google.com

Pinging www.google.com [64.233.161.103] with 32 bytes of data:
Reply from 64.233.161.103: bytes=32 time=214ms TTL=39
Reply from 64.233.161.103: bytes=32 time=213ms TTL=39
Reply from 64.233.161.103: bytes=32 time=212ms TTL=39
Reply from 64.233.161.103: bytes=32 time=210ms TTL=39

Ping statistics for 64.233.161.103:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 210ms, Maximum = 214ms, Average = 212ms

C:\Users>
```

Now if you receive this reply and couldn't open any webpages, the problem might be with your browser. [See the manual.](#)