Static IP

Normally, the router is responsible for assigning local IP addresses to devices connected to it. Most of the time, it doesn't matter to us what the actual IP address is and whether or not it's always the same. But sometimes it does. For example, some computers connect to network printers using the IP address. So if the IP address changes, the computer can't find the printer. With EchoLink, we have to forward specific ports to the computer running EchoLink using its IP address. So again, it needs to be fixed.

This guide shows how to assign a specific IP address to a specific device using the T3200M that Telus provides.

1. We'll assign a specific IP address to the device's MAC address
2. To find the device's MAC address, we'll use the device's current IP address to look it up.
3. We'll reboot the device to ensure it takes on the new IP address.
4. For EchoLink: we'll forward specific ports to the static IP address.

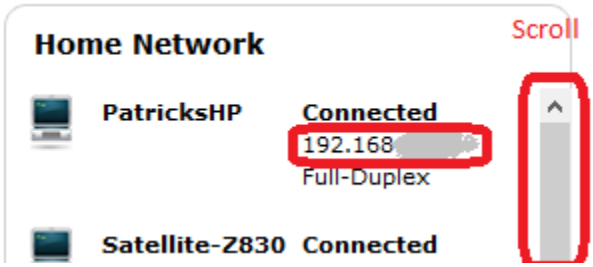
Step 0

Make sure that the device you want to change is connected to the network.

Step 1

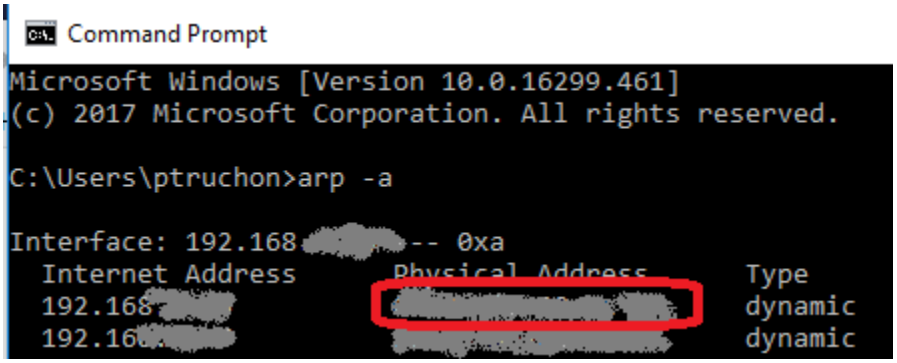
Open the router's setting's page to find out the current IP address of the device:

- Go to http://192.168.1.254
- On the top right corner of the screen, login using:
    - Username: `admin`
    - Password: (written on the modem below the word “admin”. It's NOT your wifi password.)
- In the centre of the page, scroll down until you find your device and note its IP address:



Step 2

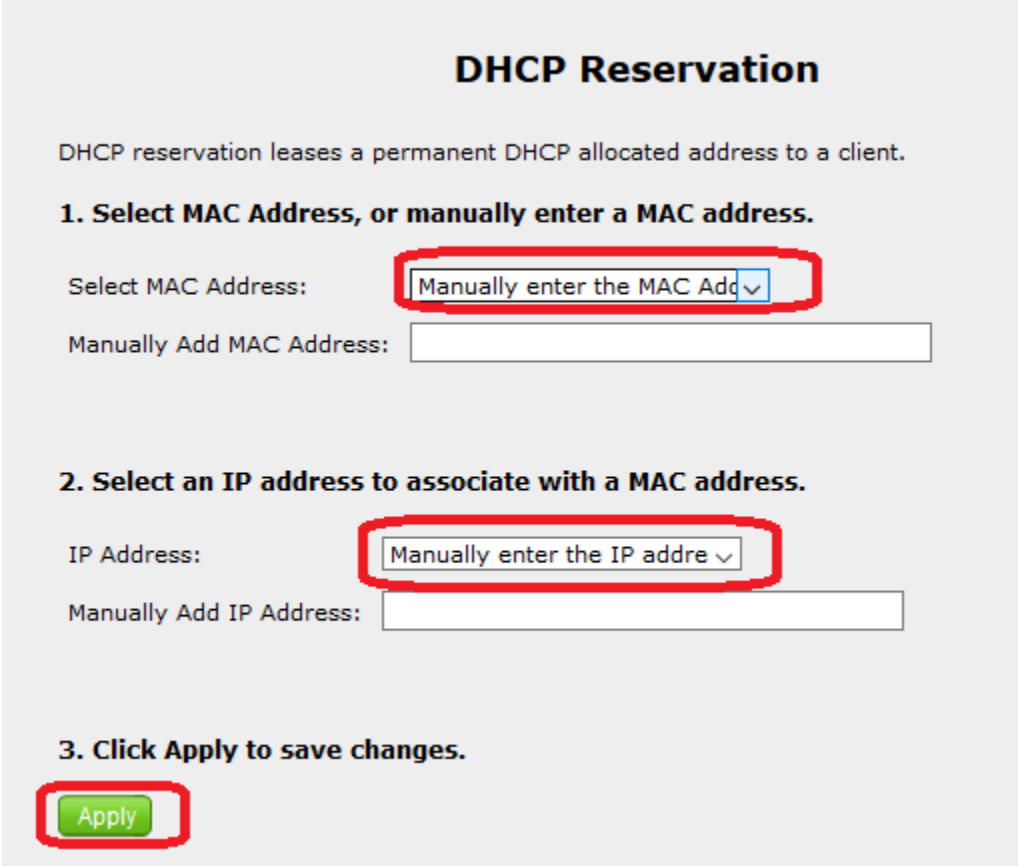
- Open a Command Prompt Window (click the Start / Window button and type `cmd`)
- Type the command `arp -a`. This will list all the devices connected to the network.
- Find the IP address of your device and note its “Physical Address” (that's the MAC address)



Step 3

Back to the router settings page...

- Click on “Advanced Setup” on the top right corner and “Proceed”
- Click on “DHCP Reservation” under “**IP Address**”
- Select the MAC address from the drop down menu
- Select an IP address from the drop down menu (note that this IP address will be **different** from the current IP address)
- Click “Apply”
- Wait a few seconds and reboot the device so it gets assigned its new IP address.



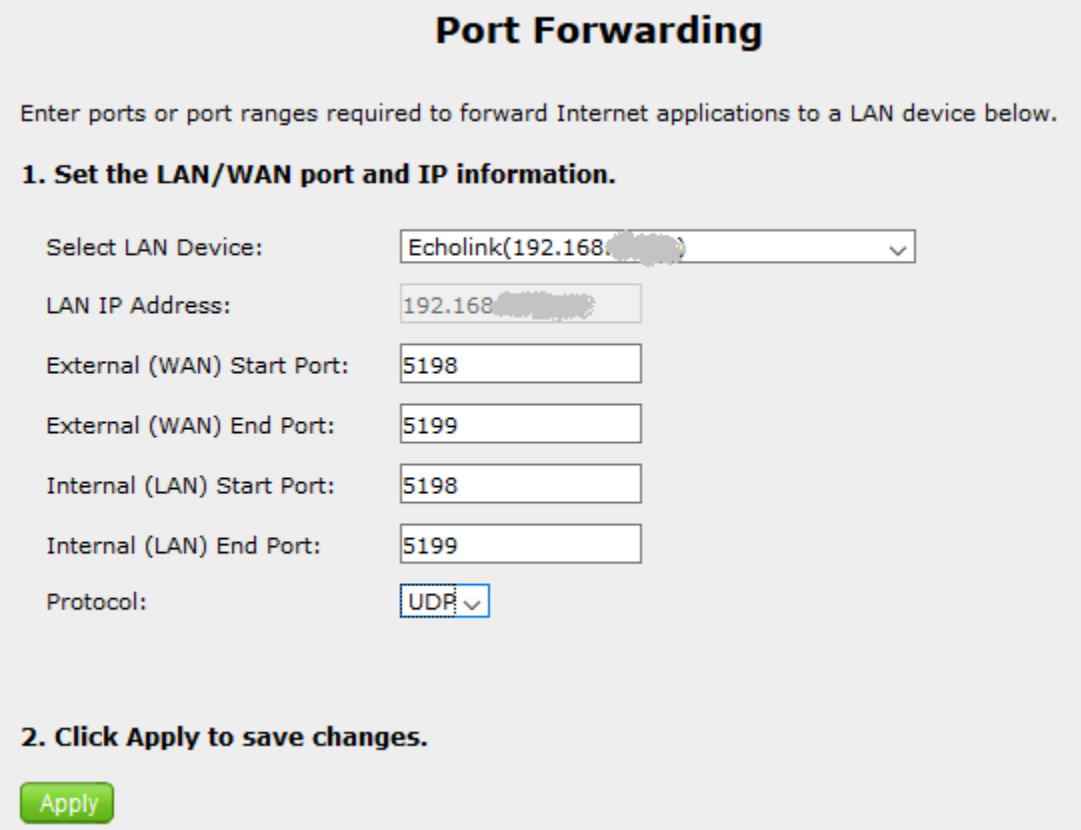
Step 4a

If you did this for a printer, you'll now need to tell the computers what the new printer's IP address is.

Step 4b

If you did this for a computer running EchoLink, we now need to forward some ports to it. According to the Echolink website, we need to forward UDP ports 5198-5199. In the router settings page:

- Click on “Firewall” at the top.
- Click on “Port Forwarding” on the left.
- Select the new IP address of the computer running EchoLink
- Enter the port range (twice).
- Select UDP
- Click on “Apply”



Note

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