

## Advanced Networking Guide

So, by now you should have your controller accessible via your home network, and you are asking yourself, “This is great, but I really like to be able to access my controller when I’m not at home.” This guide will apply to most network configurations. Of course, there are many different types of routers and network configurations out there, so this guide is not all inclusive. For a more comprehensive walk-through we suggest you consult the “Networking” chapter found in the FAQ guide. With that being said, to setup internet access to your controller via the web interface of your controller:

1. Go to the configuration>network setup page of your controller.
2. Disable DHCP and Update network settings
3. Please take note of your controller’s IP address. This is how your controller is identified on your home network.
4. Now locate your “Gateway,” this is the IP address of your router.
5. Open a new web-browser tab and type: `http://IP Address of your Router`
  - a. More than likely you’ll receive a login prompt. This is the user name and password of your router. It is often written on your router some place. If you cannot determine this, then consult the router’s user manual or your contact your ISP.
6. We need to locate the port forwarding section of your router. This is different for every type of router, but here are some basic guidelines:
  - a. Linksys: “Application and Gaming”
  - b. Netgear: “Advanced> Port Forwarding”
  - c. D-link: “Advance> Port Forwarding”
  - d. Belkin: “Advance>Virtual Servers”
  - e. Verizon: “Firewall> Port Forwarding”
    - i. For a specific Verizon tutorial see:  
<http://www.reefcentral.com/forums/showthread.php?t=1760163>
  - f. 2-Wire, “Security> Applications and Pinholes”
    - i. For a specific 2wire tutorial see the Networking chapter in the FAQ guide
7. Now that you have located the port forwarding section in your router, we need to forward the web Apex’s internal IP address located in step 3.
  - a. It’s different on every router, but the starting/ending port should be 80. The internal/external port should be 80. The protocol should be TCP, and the LAN IP/ internal IP to be forwarded should be the IP address of your Apex.
  - b. Some routers already have pre-determined applications, if your router does, then select “HTTP” instead of creating a custom port forwarding rule
    - i. Some ISPs block port 80 (i.e. Cox, Time-warner, Optimum Online, and Shaw), and you’ll have to change your Apex’s web port to something else

1. To do this, go back to the network setup page of your Apex. Change the HTTP port to some other four digit number. Update your network settings.
  - a. To access your Apex on your home network you will now need to access it via `http://"internal IP address" : HTTP port`
2. Now use this port instead of port 80 in your port forwarding rule.
8. Now repeat step 7, and create another port forwarding rule to the telnet port, port 23 in your router. This port forwarding rule is for Neptune Systems should you ever have any problems or questions about your controller. You will have two port forwarding rules pointing towards your Apex's internal IP address
  - a. There is nothing to change in your Apex for this port forwarding rule.
  - b. Typically you can leave this rule disabled except when instructed by Neptune Systems to re-enable it.
9. Finally, it's time to see if your port forwarding rules worked. Open another browser tab and go to the website, [www.whatismyip.com](http://www.whatismyip.com)
  - a. This address is known as your WAN IP, it is kind of like the telephone number for your router. How you dial your router when you are not at home
10. Switch your smart phone off of Wi-Fi, and open the Apex Application for your phone.
  - a. For iOS devices search the iTunes Store for Neptune Systems Apex
  - b. For Android devices search the market place for Neptune Systems Apex
  - c. If you do not have a smart phone or prefer not to use an App, then open an internet browser not on your home network.
    - i. Type `http://"WAN IP"` in the address bar.
    - ii. If you to port forwarded to a port other than 80, then `http://"WAN IP":http Port`
11. For and App, add a controller to you phone.
  - a. For iOS devices tap the plus sign
  - b. For Android devices tap the menu button then add
12. Your "host name" is your public IP address
13. Your "port" is the port you setup in step 7 of the guide. Usually it will be 80.
14. You should now be able to access your controller via your smart phone outside your home network.

As mentioned this is not an all-inclusive networking guide, and the steps outlined here may not apply to your specific network setup. Should you have any questions please feel free to email us.