

Steps to setup the Zyxel portable router for ssh access with the Raspberry Pi

These steps are specific to the Zyxel router but would be similar on any router. The purpose of this exercise is to setup a wired connection on an Allstar portable node using a smartphone, laptop, or any computer that can support an ssh client to connect to the Pi. The client device (phone) would connect to the router wireless and the router would connect wired to the Pi. Thus you could establish an ssh connection on the phone to the Pi.

Note that this is for setup only. The router should be disconnected from the Pi after setup.

- Ensure the switch on the side is in the "Router" position.
- Cat-6 cable from LAN port on router to Network Port on Pi.
- Power Cable from router to USB port on Pi (for power).
- Power up the Pi.
- If you have the node radio on and listening, it should say what the IP address is. This may not happen or may be inaccurate if the Pi is also connect to a wireless access point.
- If it does not say the ip address, it will most likely be 192.168.100.100 or 192.168.100.101. The Pi DHCP's for an address from the Zyxel router and is generally given the 192.168.100.100 address.
- On the back of the Router there is the IP address to log into the router (192.168.100.1), the Login for ADMIN and the password for the WI-FI of the router. Make note of the wifi password as you will use it in the next step
- At this point, take either your phone, tablet or laptop computer. Scan for new wi-fi access points and you should see one for the Router. Enter the wifi password that was on the back of the router and sign-on to this wi-fi access point.
- At this point your pi will be connected to the router by a cat-6 cable and your phone/tablet/laptop should also be connected to the router by wi-fi.
- You can now use the phone/tablet/computer to connect to the Pi and set it up. For Android phones an app called "connectbot" is recommended. This app will allow you to ssh to the Pi the same as you would with putty in Windows. Connect and login to the Pi using the announced IP address or 192.168.100.100 and port 222. If for some reason that does not work use 192.168.100.101

- Once logged in run the wireless-setup.sh script. Setup wireless on the pi selecting the access point you want to use – not the Zyxel or the phone itself – exit wireless setup and reboot the Pi if it does not do so then pull out the Zyxel connections to the Pi – USB and Ethernet. The Pi should boot up and access the Internet via the device you setup.

Note that you can NOT use your access device both as a client to access your Pi wirelessly through the Zyxel router and also to select that same access device as an access point for the Pi. So for instance if you just had your phone you would have to have some other means such as a pad or laptop to access the router while the phone was in hotspot mode. Then you could setup the Pi to use the phones wireless hotspot.

- An alternative would be to setup the phone access at a location where you can connect an HDMI monitor and keyboard to the Pi. Doing it this way you would not need to use the router or any of the above instructions. Just login on the HDMI monitor, run the wireless script – wireless-setup.sh – make sure your phone or the device you want to connect to is available, select it and input its passphrase, complete the setup and you should be connected. You can disconnect the HDMI monitor and keyboard and proceed to use Allstar.
- It is not necessary for operation but If you wish, you can log into the router using a browser by entering 192.168.100.1 as the address and using the login/password that is on the back of the router. You can view, edit, change router settings just like you would on your home router.
- Once logged into the router, to see what is connected, select “Network Settings”, “Lan Interface”, and “Show Client” to the right of the DHCP Client Range. This will show a table of connected devices.

Below are example screenshots from an Android smartphone using the connectbot app. The first shows connecting to the Pi to login and the second shows the wireless-setup.sh script screen where you select what access point you want to connect to for Allstar.



