Ubiquiti Wireless Configuration

Here are notes on the current configuration settings being deployed on the Ubiquiti radios. Use this information to verify or correct a station adapter at a tower to get it to connect to the network. This page only has settings for Station radios at this point. Access points have important differences, especially the restricted frequency list, and of course they use wireless mode Access Point PTMP.

Connecting to a Ubiquiti on site

At most sites, there must be an ethernet switch available to connect a laptop to the Ubiquiti radio. On tall towers there may be a switch already at the base. On towers with only Pi DSMs, a switch can be temporarily installed to connect laptop, Ubiquiti, and DSM together.

At sites with only PC104 DSMs: disconnect the ethernet ribbon cable from the interface panel, then plug into the RJ45 jack on the interface panel. That should connect laptop to radio, but it is not possible to connect to the DSM at the same time. When finished, remember to reconnect the ethernet ribbon cable.

The laptop must be on the tower network, so it must have an IP address that does not conflict. The wired interface on eddy already has a static IP address 192.168.1.9. Other laptops can temporarily use 192.168.1.5, which has been reserved for DSM diagnostics.

Confirming Connection

From a laptop or the DSM (such as when logged in through a console), it should work to ping the ops center or any Internet host, eg `ping 192.168.1.10`. If not, start with pinging the radio itself.

All the radios should have the correct IP address and admin login account already configured. Use the name from the hosts file, such as tnw05u, or look up the IP address on the networking spreadsheet. It might also work to use a broadcast ping to see who responds, usually one of the responses is from the radio: `ping -b 192.168.1.255`.

If the radio does not connect to the rest of the network, then browse to the radio web interface URL using a web browser, eg `http://tnw05u/` or use the IP address.

Some browsers (ie firefox) will say the connection is insecure. You have to click *Advanced* and confirm the security exception to get to the login page. Once logged into the admin account, verify the settings below.

Radio Settings

If any settings change on each page, click the **Save Settings** button in the lower right.

Wireless Tab

Wireless mode	Station PTMP
SSID	perdigao (all lower case)
Lock to AP	*see below*
Frequency list	unchecked
Wireless security	WPA2-AES
WPA Authentication	PSK
WPA PSK	*ask* (different than login password)
Channel width	Auto 20/40 MHz

Network Tab

Network mode	bridge
Config mode	simple
IP address	verify with the hosts file or Perdigao Networking doc
netmask	255.255.255.0
Gateway IP	192.168.1.1
DNS IP	192.168.1.1
2nd DNS	blank
MTU	1500

System Tab

Device name	change from default to the radio designation, like TrNW_05

Locking to the Access Point

Use *Tools->Site survey* to see the available radios. One of the ones with the stronger signal should be the access point. Copy the MAC address. Then paste that in the *Lock to AP* setting in the wireless settings page. You must tab outside of the *Lock to AP* to enable the **Save Settings** button.

On the *Main Page*, the radio should eventually connect to the AP. Click the bar in the far right side of the *Link* section to expand it and show information about the AP. If the radio doesn't link up, check the settings above.