PowerG8 WRAP DUAL Radio Units

Quick start guide for the Netgate PowerG8 WRAP Dual Radio Units

1. Attaching Power and LAN to the unit.
    a. Make sure antennas are connected before applying power to the unit.
    b. Attach the Power over Ethernet (PoE) "puck" to your LAN via a CAT5 cable. The LAN is attached to the RJ45 connector that is farthest away from the power connector.
    c. Plug a CAT5 cable from the PoE puck, using the RJ45 closest to the power connector, to the RJ45 waterproof connector on the PowerG8 WRAP unit.
2. Setting the parameters through the GUI
   (optionally a serial port may be used, see the WRAP board User Manual at http://www.netgate.com/info/PG8WRAP/WRAP2C-manual.pdf)
    a. Wait 60 seconds, plug your computers Ethernet cable into the PowerG8 WRAP unit with a cross-over cable, or plug both PowerG8 WRAP and your computer into an Ethernet switch or hub.
    b. Wait 60 second, and check your computers IP settings for its Ethernet card. (If your computer is set up with a static IP, write it down for reentry later.) It should be configured to 192.168.1.xx, where 'xx' is between 100 and 200.
    c. If step 'b' fails to configure an IP address, configure your computer's Ethernet card to IP address 192.168.1.2, netmask 255.255.255.0. The other settings (such as default router and DNS server) aren't necessary.
    d. Open a browser (such as Firefox or Internet Explorer)
    e. Decide which radio is going to be used as a "client" to another Access Point and which is going to be used as an "Access Point" to users or other client bridges. Possible choices depend on the dual radio configuration that you purchased. They will be either wi0, wi1, ath0, ath1 where wi indicates a 2511 and the ath stands for Atheros radios.
    f. In the URL/address field of the browser enter http://192.168.1.1/
    g. When prompted enter the
       user id = admin and the
       password = mono
    h. On the menu along the left side of the webGUI Configuration Page, click on the word "assign" where it shows **Interfaces** (assign).
        i. There is a plus sign (+) in a circle, click on it to see the OPT1 on the list. You should see a LAN, WAN and OPT1 entry.
        ii. On the pull down next to LAN, set LAN to sis0
        iii. set WAN to the radio that will be a client.
        iv. set OPT1 to the radio that will be the Access Point.
        v. Click "Save"
    i. Click on Interfaces->WAN (this will be the Client to another AP after reboot)
        i. Scroll to the bottom under "Wireless Configuration"
        ii. Change "Mode" to "BSS"
        iii. In SSID, enter the SSID of the Access Point you want this client to associate with.

iv. Uncheck the box (at the bottom of the page) marked "**Block private networks**"
v. Click "Save"

j. Click on Interfaces->OPT1 (this will be the wireless Access Point after reboot).
i. Click on "Enable Optional Interface" at the top of the page
ii. Set the IP Address to 192.168.2.1 / 24
iii. Set the Mode to "hostap".
iv. Set the SSID to "PowerG8" or whatever SSID you want (no quotes)
v. Set the drop-down menu marked "Standard" to 802.11a/b/g depending on which radio you have selected for the AP.
vi. Click Save.

k. Click "Firewall->Rules"
i. Click the '+' with a circle around it at the far right hand side of the page.
ii. Ensure the following are set
1. Action = "Pass"
2. Interface = "OPT1"
3. Protocol = "TCP"
4. Source = "OPT1 subnet"
5. Source: type = "any", address = <blank>, "not" <unchecked>
6. Source: type = "any", address = <blank>, "not" <unchecked>
iii. Change "Source Port Range"/from: to "any" (the "to:" side will also change to "any")
iv. Change "Destination Port Range"/from: to HTTP (the 'to:' side will also change to "HTTP"
v. Click "Save"
vi. Hit "Apply Changes"

l. Enable DHCP on OPT1
i. Click "Services->DHCP Server
ii. Click the OPT1 tab
iii. Check "Enable DHCP server on OPT1 Interface"
iv. Change the Range to From: 192.168.2.100 and To: 192.168.2.199
v. Verify other settings reflect a 192.168.2.XX network
vi. Click "Save"

m. Click on "General Setup"
i. Enter the address for a valid DNS server in the box marked "DNS Servers".
ii. Set the time zone, if desired
iii. Click "Save"

n. Reboot (click on the highlighted word "reboot" that shows above or click on "reboot" under the Diagnostics menu.
i. Wait 60 seconds
ii. Check to ensure that your computer's Ethernet interface is still configured for 192.168.1.xxx
iii. Attempt to contact your WRAP.

3. Change your computer back to your original network settings; either to the static IP address and mask you wrote down, or; back to "Obtain an IP address automatically".