

# How to use a Mesh Node as an Internet Gateway

Using the following figure you can set up a mesh node to gateway all users on your mesh to the internet.

The screenshot shows a web-based configuration interface for a mesh node. The top navigation bar includes 'Node Status', 'Basic Setup' (which is selected and highlighted in black), 'Port Forwarding, DHCP, and Services', and 'Administration'. Below the navigation are buttons for 'Help', 'Save Changes', 'Reset Values', 'Default Values', and 'Reboot'. The main configuration area is divided into three columns: WiFi, LAN, and WAN.

- WiFi:** Protocol: Static, IP Address: 10.228.87.162, Netmask: 255.0.0.0, SSID: BroadbandHamnet -20-v3, Mode: Ad-Hoc, Channel: 1. Active Settings: Rx Antenna: Diversity, Tx Antenna: Diversity, Tx Power: 19 dBm, Distance: 0. Buttons: Apply.
- LAN:** LAN Mode: 5 host Direct, IP Address: 10.34.189.17 (1), Netmask: 255.255.255.248 (2), DHCP Server: checked, DHCP Start: 18 (3), DHCP End: 22 (4).
- WAN:** Protocol: Static, IP Address: 10.10.2.2 (red arrow 1), Netmask: 255.255.255.0 (red arrow 2), Gateway: 10.10.2.1 (red arrow 3), DNS 1: 10.10.2.1 (red arrow 4), DNS 2: 205.171.2.65. Mesh Gateway: checked (red arrow 5).

1. Connect your computer to the router that attaches to the internet.
  - a. Using the windows command 'Ipconfig' determine the IP address and netmask of the router attached to the internet.
  - b. Disconnect your computer from the internet router.
  - c. Connect a cat 5 cable to any of the 4 lan ports of the Mesh Node that will become your Mesh Gateway
  - d. Get a new IP address from the Mesh Node
    - i. Open a 'CMD' prompt window
    - ii. Use Windows command 'ipconfig /release'
    - iii. Then 'ipconfig /renew'
  - e. Log onto the Mesh Node using a web browser
    - i. Enter 'localnode:8080' on the location line of the browser
    - ii. Click on the setup tab and enter the User Name and Password for the Node
2. In the WAN column change the Protocol setting from 'disabled' to 'static'
3. In position 1 of the figure above enter an IP address that is one or two greater than the internet router IP address on your computer in the comparable position on the node setup screen.
  - a. Compare position 1 and position 3 in the figure above for an example.
4. In position 2 of the figure above enter the internet router's IP address on your computer in the comparable position on the node setup screen.

5. In position 3 of the figure above enter the internet router's netmask address on your computer in the comparable position on the node setup screen.
6. In position 5 of the figure above enter the internet router's IP address as the first DNS on your computer in the comparable position on the node setup screen.
  - a. If you know of a reliable DNS address you may enter it as DNS 2. However this is not required.
7. Check the box labeled 'Mesh Gateway' as in position 5 in the figure above.
8. Save the changes, wait for the Mesh Node to acknowledge the changes, and reboot the Mesh Node.
9. Connect a Cat 5 or 6 network cable from the 'WAN' port of the Mesh Node to any 'LAN' port on the internet router.
10. Now all computers that connect to your Mesh Network have access to the Internet through the Mesh Node Gateway.

I hope that this guide helps you set up an Internet Gateway on your Mesh Network. If you find any errors please contact me at NB7O at arrl.net

Seven three de Kevin/NB7O