

TIME IPS[®]

BRIDGE-WRT

Wireless Network Bridge



Installation Guide

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Overview

The BRIDGE-WRT wireless network bridge allows a TimeIPS network clock to communicate with a TimeIPS master via a wireless network.

The wireless network bridge uses a special version of a Linksys brand WRT54GL Wireless-G Broadband Router. This unit connects anywhere on the network where a wireless access point is also installed.

The BRIDGE-WRT provides:

- Wireless access to your network
- Security through optional wireless encryption and MAC filtering

If your wireless access point is a cellular/mobile hotspot, some of the instructions in this guide will not apply. Please contact our Technical Support department for assistance.

Requirements

- An IEEE 802.11 b/g wireless access point configured on your network
- An available static IP address on your network
- A computer (in DHCP mode) with a web browser and a wired connection to your network
- If you use a laptop or notebook computer to configure the BRIDGE-WRT, make sure its wireless network interface is turned off, if applicable.

NOTE: These setup instructions assume the bridge has been reset to factory defaults.

Configuration

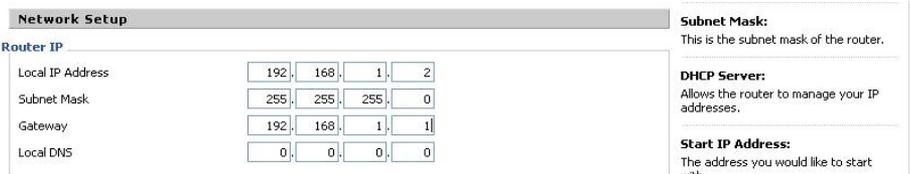
1. Connect one end of the included network cable to port 1 on the bridge. DO NOT connect the network cable to the port marked INTERNET.
2. Disconnect your computer from your network and connect the other end of the network cable from the bridge to your computer.
3. Connect the power adapter to the bridge. Allow the bridge to boot fully (about 60 seconds).
4. Open your web browser on your computer and navigate to 192.168.1.1.
5. You should be asked to change the username and password for the bridge. Be sure to record the username and password you set in a safe place. Click Change Password. You should be directed to a screen similar to this:



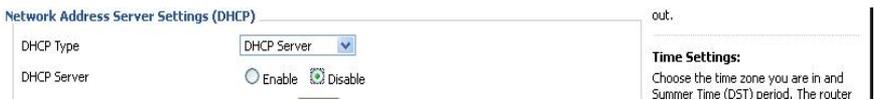
6. If you can not reach the web interface for the bridge, restart your computer and try again.
7. If you still are unable to access the web interface for the bridge, make sure the network settings on your computer are set to DHCP mode. For assistance, contact your network administrator or our Technical Support department at 316.264.1600.
8. Select the Setup tab toward the top of the screen and log in with the username and password you set in Step 5. You should see something like this:



9. Under WAN Connection Type, change the Connection Type setting to “Disabled.”
10. You may change the name of the bridge under Optional Settings, Router Name, if you would like.
11. Under Router IP, set the Local IP Address to a valid available static IP address on your network. Set the Gateway to the IP address of your Internet Gateway. This may be your wireless access point if it is also your Gateway to the Internet. You may leave the Local DNS fields set to zero.



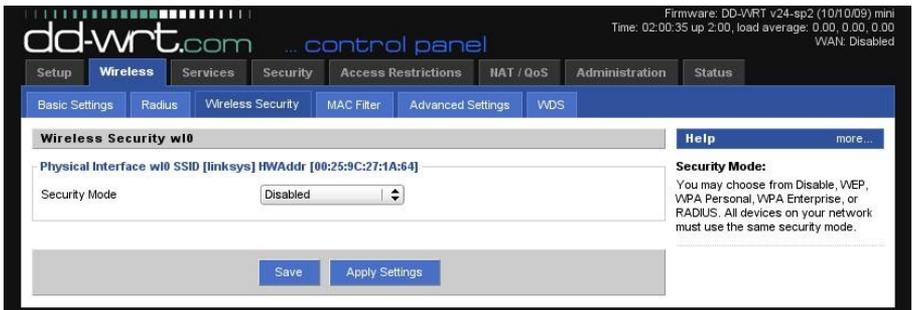
12. Under Network Address Server Settings (DHCP), change the DHCP Server setting to “Disable.” Click Save at the bottom of the page.



13. Select the Wireless tab toward the top of the screen. You should see something like the following:



14. Change the Wireless Mode setting to “Client Bridge.”
15. Change the Wireless Network Mode setting to suit your network (B-Only, G-Only or Mixed).
16. You may enter the Wireless Network Name (SSID) of the network you want to connect to but it is not required.
17. Change the Wireless Channel to suit your network.
18. You may disable Wireless SSID Broadcast if you wish.
19. Leave Network Configuration set to “Bridged” and click Save.
20. If your network uses wireless encryption, select the Wireless Security tab. If not, you may skip to Step 23. We strongly recommend enabling wireless encryption if your network does not already use it.
21. Selecting the Wireless Security tab should take you to a screen similar to the following:



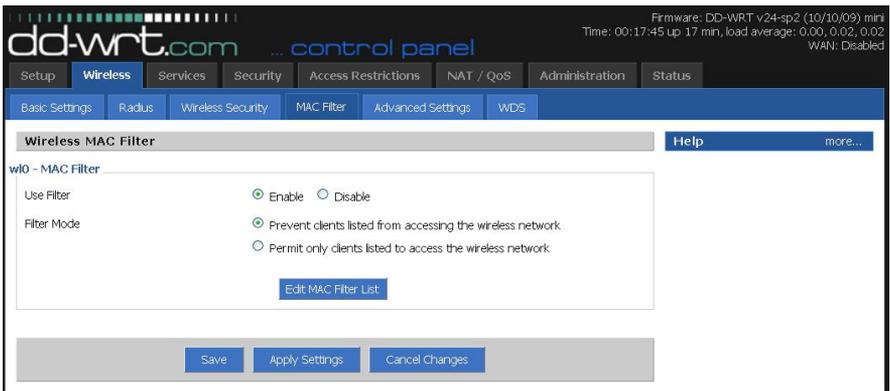
22. Configure your security settings (such as Security Mode, WPA Algorithms and Shared Key) to match your network and click Save.

23. The following example depicts the required settings for WPA2 Personal encryption.

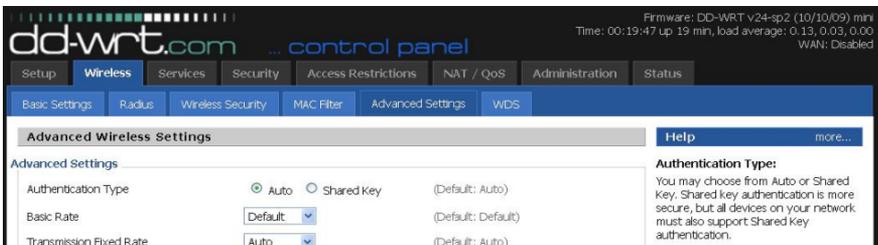


24. If your network uses MAC filtering, set those parameters on the MAC Filter tab and click Save.

25. The following example depicts the MAC Filter tab if MAC Filtering is enabled.



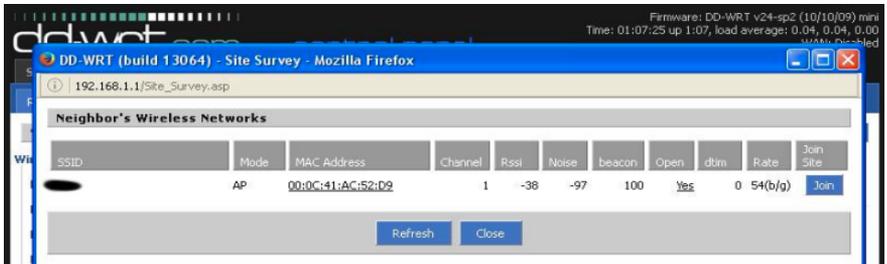
26. If you changed any settings on the Wireless Security tab, select the Advanced Settings tab. You should see something like the following.



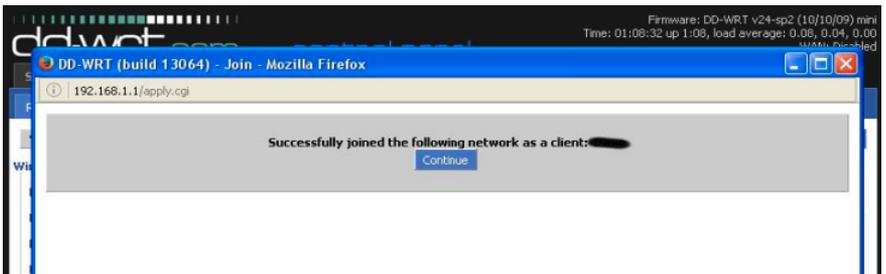
27. Change the Authentication Type setting to “Shared Key.” Click Save at the bottom of the page.
28. We recommend recording all of the wireless and LAN settings for this bridge in a safe place.
29. Select the Status tab toward the top of the page.
30. Select the Wireless tab on the Status screen. This is not the same Wireless tab you selected in Step 13. You should see something similar to the following.



31. Click Site Survey at the bottom of the page.
32. Click Join next to the wireless network you are trying to connect to.

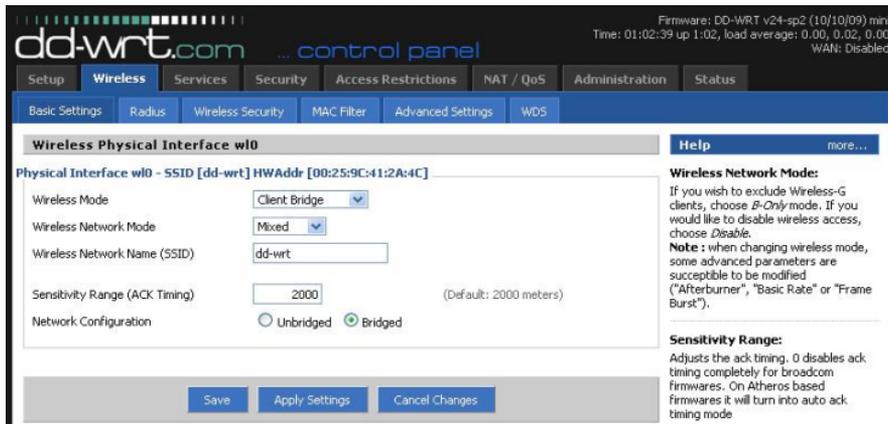


33. If the wireless settings were entered correctly, you should see a confirmation screen similar to the following.



34. Click Continue.

35. You should be taken back to the Wireless, Basic Settings tab.



36. Click Apply Settings.

37. Navigate to the IP address you assigned to the bridge in Step 11.

38. If you are unable to reach the web interface for the bridge, restart your computer and try again.

39. Under Wireless Nodes at the bottom of the page, you should see an entry for your wireless access point.

Wireless Nodes

Access Point

MAC Address	Interface	Uptime	TX Rate	RX Rate	Signal	Noise	SNR	Signal Quality
00:0C:41:AC:52:D9	eth1	N/A	N/A	N/A	-43	-97	54	63%

40. If you do not see an entry for your wireless access point, wait 5 – 10 seconds for the page to refresh.

41. Open a new tab in your browser and navigate to any web address to test the wireless bridge's connection to your wireless access point.

42. Reconnect your computer to your wired network.

43. Connect the network cable from the bridge to a TimeIPS network clock.

44. Connect the power adapter to the network clock. Proceed with the setup of your network clock.

Troubleshooting

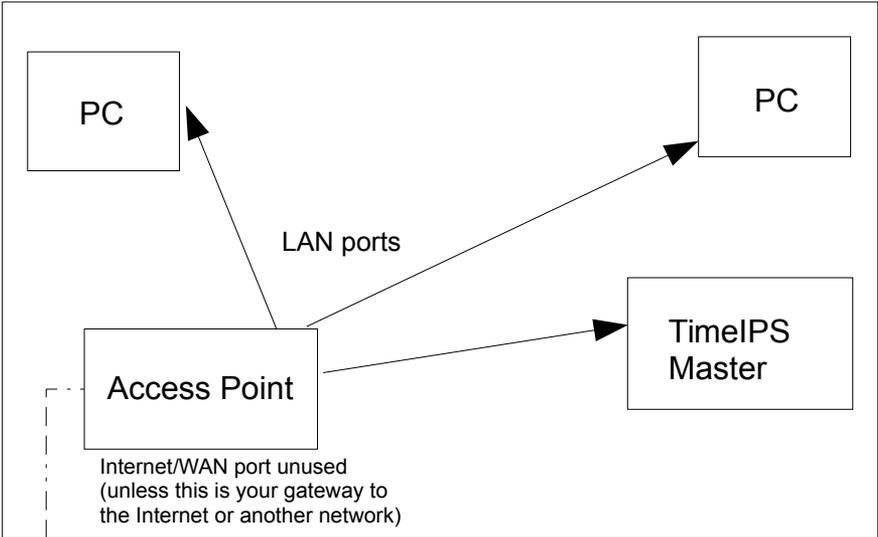
If the WLAN light on your bridge is flashing about once per second, it means the bridge is attempting to connect to your wireless network. Access the web interface for the bridge and verify the wireless settings.

If your network clock is unable to reach your TimeIPS master, try the following:

- Try accessing the web interface for your TimeIPS master from a PC on your network
- Access the web interface for the bridge and verify the wireless settings
- Power cycle the bridge
- Restart the network clock

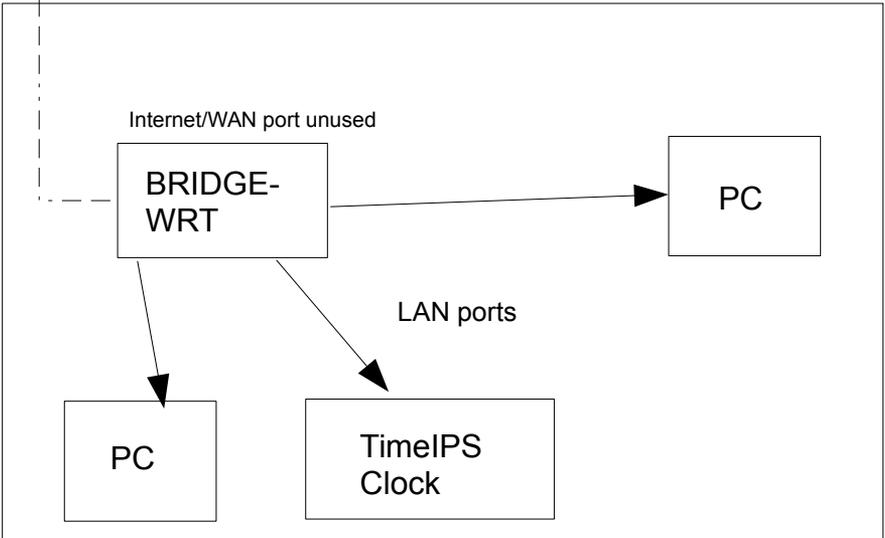
Bridged Network Diagram

Your Existing Network



802.11 Wireless Connection

Bridged Network



Settings Quick Reference

This section is provided as a quick reference for the various settings of your wireless bridge. Keep this information in a safe and secure location.

Setup – Basic Setup

Router Name: _____
Local IP Address: _____.
Subnet Mask: _____.
Gateway: _____.
Local DNS: _____.

Wireless – Basic Settings

Wireless Mode: Client Bridge
Wireless Network Mode: _____
Wireless Network Name (SSID): _____
Network Configuration: Bridged

Wireless – Wireless Security

Security Mode: _____
Encryption / Algorithms: _____
Passphrase / Shared Key: _____

Technical Support

Technical Support Resources:

1. Our support web site at <http://support.timeips.com> offers extensive resources including documentation and our knowledge-base. Please check our support web site first, as it provides complete answers and instructions on almost everything. In the "Knowledge Base Search:" box, enter a few words describing your question. For example, if you have a question on wireless bridging, type "wireless bridge" and browse the articles listed.
2. If you have a question not answered on our support site, you can call or email us. A serial number or registration number is required for this service. Additional support can be purchased by calling TimeIPS, or by visiting our web site at <http://secure.timeips.com>.
3. If you have a simple question, or need direction on how to use our support resources, feel free to email us at support@timeips.com. If your question is quick, we'll be happy to help. If it's not, we'll let you know that you need to purchase additional support.

Support website

<http://support.timeips.com>

Support e-mail

support@timeips.com

Support phone number

316.264.1600

Specifications:



Power:

12VDC, 1A, 12W

Operating environment:

32° - 104°F (0° - 40°C) non-condensing

System Requirements:

TimeIPS IPS100, IPS200 or IPS300 class system

Wireless Compatibility:

IEEE 802.11 b/g

Approximate dimensions:

6in (152mm) x 7.5in (191mm) x 2in (52mm)

Approximate weight:

~1lb (~500g)

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Thank you for reading this manual carefully. If you noticed errors, have any suggestions or found typographical problems, we want to know! Please send an email with the version code below and your feedback to documentation@timeips.com. We appreciate your time.

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