

How to use the Netgear DG834G as a wireless repeater.

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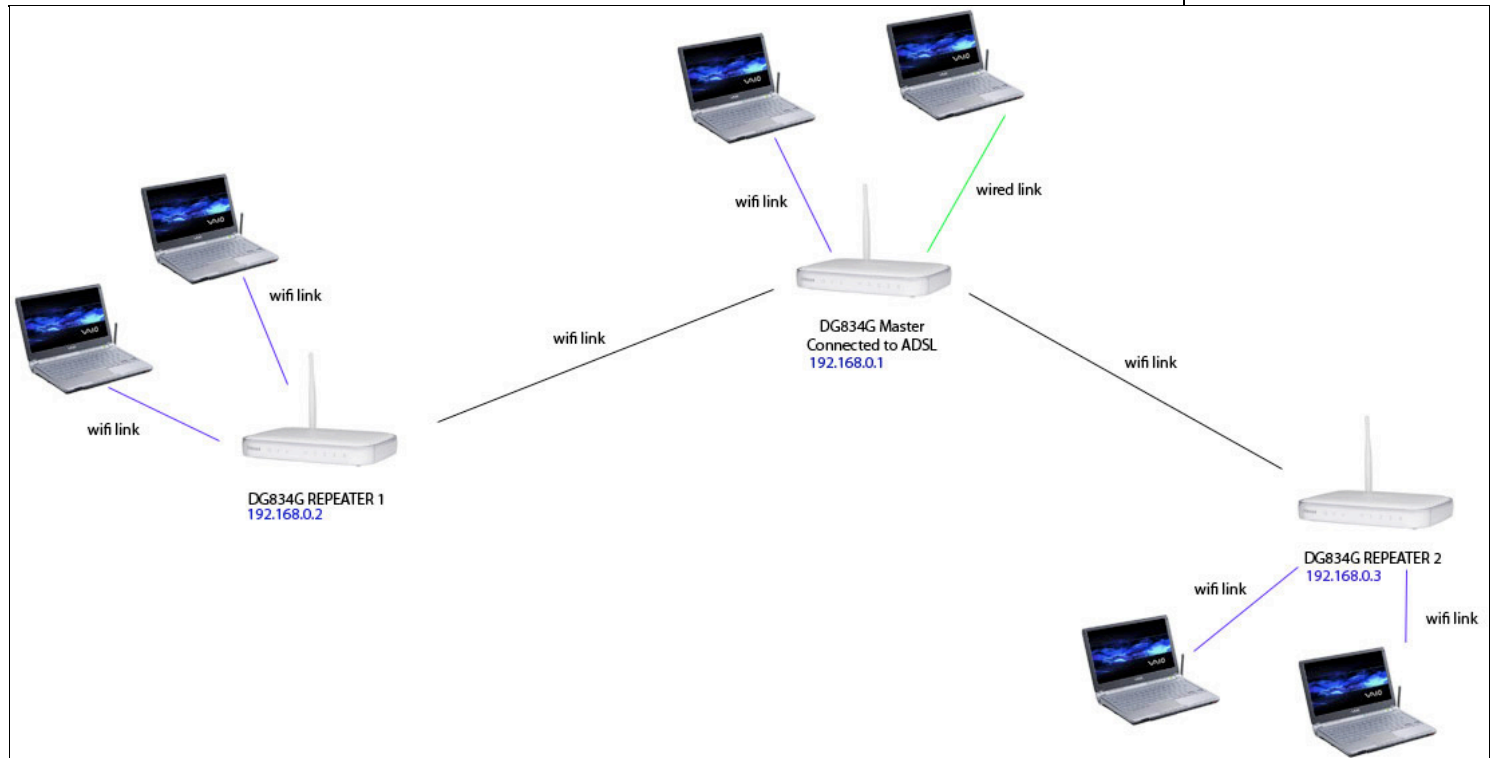
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17/09/08 I wanted to extend the range of my wireless network using a number of Netgear DG834G routers. After trawling the web for guides on how to do this, I got nowhere. So after learning how to do it myself, here is a guide on how to do it. This should work with any WDS equipped Netgear product, but I have DG834Gs.

Here is what my network looks like:



Here's what you need to do to get this to work:

- 1: Log in to the **Master** router. This is the one connected to your ADSL line.
 - 2: Select Wireless Settings > Setup access list > Add the MAC addresses of your laptops / wireless PCs
 - 3: Select Advanced Wireless Settings > Enable Wireless Bridging and Repeating > Repeater with Wireless Client Association > Fill in MAC address details of **Repeater 1 and Repeater 2** > Apply
 - 4: Select LAN IP Setup > Set IP address to **192.168.0.1** > Tick "Use Router as a DHCP Server" > Starting IP address **192.168.0.4** > Ending IP address 192.168.0.255 > Apply
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- 5: **Log in to Repeater 1**
 - 6: Select Wireless Settings > Setup access list > Add the MAC addresses of your laptops / wireless PCs
 - 7: Select Advanced Wireless Settings > Enable Wireless Bridging and Repeating > Repeater with Wireless Client Association > Fill in MAC address details of **MASTER ROUTER ONLY** > Apply
 - 8: Select LAN IP Setup > Set IP address to **192.168.0.2** > untick "Use Router as a DHCP Server" > Apply

9: Log in to Repeater 2

10: Select Wireless Settings > Setup access list > Add the MAC addresses of your laptops / wireless PCs

11: Select Advanced Wireless Settings > Enable Wireless Bridging and Repeating > Repeater with Wireless Client Association > Fill in MAC address details of **MASTER ROUTER ONLY**> Apply

12: Select LAN IP Setup > Set IP address to **192.168.0.3** > untick "Use Router as a DHCP Server" > Apply

13: Turn all routers off

14: Turn on the Master Router

15: Turn on Repeater 1 and Repeater 2

16: You are now done.

To set up wired devices: IE plug a wired PC into a repeater upstairs in order to use a wireless connection downstairs:

0: Follow the steps above, then:

1: Plug in the wired device to one of the repeaters

2: Manually configure the interface:

IP Address: 192.168.0.100 - choose a high number to avoid any DHCP clashes

Subnet mask: 255.255.255.0

Default Gateway: 192.168.0.1 (The master repeater)

DNS: 192.168.0.1 (The master repeater)

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Things to note:

1: Most wireless clients will automatically connect to the strongest signal available, whether this is the master or one of the repeater routers. Some clients will need to be manually connected, usually by disabling and re-enabling their WIFI card.

2: The Channel, SSID, WEP and MAC Authentication settings **MUST** be the same across the master and repeater routers. If you change one, you must change them all.

3: You can plug wired devices into the Master router or the repeaters.

4: The MAC addresses for each router are printed on the bottom of the router.

5: Repeating the signal halves the bandwidth available on your WLAN - not a problem if you're just downloading stuff from the internet as your ADSL is unlikely to be faster than your WLAN - but worth noting if you transfer a lot of files between machines over your WLAN.

6: This system uses MAC authentication. Before a laptop or other device can use the network, its MAC address needs to be added to the MAC tables on ALL THREE routers.

7: You can use WEP or not, it's up to you, but the WDS repeating protocol **must** use MAC authentication. WPA encryption is not currently supported - it might be in a later firmware release. 14/05/09 Apparently WPA/2 is supported in v3 and v4 latest firmware - although I haven't tested this.

8: Only v3 and greater DG834Gs support WDS. Most vendors are selling v4 and v5 these days so this shouldn't be a problem unless you have a really old router.

9: The routers **MUST** have different IP addresses, and the DHCP server **MUST** be active on the Master router. I use the following setup:

Master: 192.168.0.1

Repeater 1: 192.168.0.2

Repeater 2: 192.168.0.3

DHCP pool: 192.168.0.4 - 192.168.0.255

10: Yes I know WEP can be cracked. The chances of someone with mad skills breaking into the Pentagon from my ADSL line are next to zero though. Do the windows in your house have bulletproof glass?

11: Why not use WG602s? Because DG834Gs are the same price or cheaper, and I now have spare ADSL routers if the master blows up.

12: I found this guide to wireless repeating at [Ben Carpenter's Website](#) to be very useful.

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