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How to Enable Wi-Fi on MacBook, Mac Mini, MacBook Air for Ubuntu/Linux/Debian/Mint/Mate OS ---- If you liked this, check out my email forwarding service at <https://forwardemail.net> 🍌 🍌 🍌

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How to Enable Wi-Fi on MacBook, Mac Mini, MacBook Air for Ubuntu/Linux OS

By default older Mac computer models have driver issues with the Broadcom Wi-Fi chip. Most instructions online (such as this one from the official Ubuntu docs @ <https://help.ubuntu.com/community/Macmini5-1/Precise>) suggest to use `sudo apt-get` and install these packages from the PPA.

BUT you don't have Internet so you can't use `apt-get` ! Instead you can use a different computer to download the packages, then transfer them over.

In the instructions below, you will need to replace `sid` in the download URL's with the proper version of Debian your version of Ubuntu/Linux is using. To find which version you should use, you can view the chart at <https://askubuntu.com/questions/445487/what-debian-version-are-the-different-ubuntu-versions-based-on#445496>. If you're using `jessie` for example, then replace all `sid` with `jessie` in the links below.

1. Download `b43-fwcutter` @ <https://packages.debian.org/sid/b43-fwcutter> (replace "sid" in the URL as needed -- scroll down to "Download" section and choose based off your architecture, and then select a mirror/FTP link to download from on the next page that appears).
2. Download `firmware-b43-installer` @ <https://packages.debian.org/sid/firmware-b43-installer> (repeat same note as above)

3. Download webfs @ <https://packages.debian.org/sid/webfs> (repeat same note as above)
4. Download <http://www.lwfinger.com/b43-firmware/broadcom-wl-5.100.138.tar.bz2> (e.g. using `wget http://www.lwfinger.com/b43-firmware/broadcom-wl-5.100.138.tar.bz2`)
5. Save these downloaded files to flash storage and then insert flash storage into your Ubuntu/Linux machine.
6. Copy the files from the flash storage to your Ubuntu/Linux machine's desktop.
7. Open a terminal and run the command `echo '127.0.0.1 www.lwfinger.com' | sudo tee --append /etc/hosts`
8. Run the command `sudo dpkg -i ~/Desktop/webfs.deb` (**replace webfs.deb with the webfs deb file name**)
9. Run the command `sudo mkdir -p /var/www/b43-firmware`
10. Run the command `sudo mv ~/Desktop/broadcom-wl-5.100.138.tar.bz2 /var/www/b43-firmware/`
11. Run the command `sudo sed -i -e 's/web_root="\var\www\html"/web_root="\var\www"/' /etc/webfsd.conf`
12. Run the command `sudo sed -i -e 's/web_port=""/web_port="80"/' /etc/webfsd.conf`
13. Restart the web server `sudo /etc/init.d/webfs restart` (you may need to use `sudo systemctl restart webfs` if your system uses `systemd`)
14. Run the command `sudo dpkg -i ~/Desktop/b43-fwcutter.deb` (**replace b43-fwcutter.deb with the b43-fwcutter deb file name**)
15. Run the command `sudo dpkg -i ~/Desktop/firmware-b43-installer.deb` (**replace firmware-b43-installer.deb with the firmware-b43-installer deb file name**)
16. Run the command `echo 'blacklist ndiswrapper' | sudo tee --append /etc/modprobe.d/blacklist.conf`
17. Run the command `echo 'SUSPEND_MODULES="b43 bcma"' | sudo tee ---append /etc/pm/config.d/modules`
18. Run `sudo reboot` and then check if you can connect to Wi-Fi.
19. See <https://help.ubuntu.com/community/MacBookPro8-2#Wireless> for other instructions, such as enabling Sensors. Also see <https://askubuntu.com/questions/334561/problems-with-broadcom-bcm4311-wireless-card-on-hp-pavillion-dv6000#667832> for reference.
20. Remove webfs and the temp dir by typing `sudo apt-get remove -y webfs` and `sudo rm -rf /var/www/b43-firmware/` on your Ubuntu/Linux machine afterwards.

No working on macbook air
Did everything as u said
But not working on kali linux
nothing changes after restarting

haohello commented on Jul 25, 2019 • edited ▼

this solution doesn't work for me, I found another simpler solution to this problem. Just go to this [page](#) to download and install the driver, by the way, my mac mini is late 2014 and the OS is Debian 10 (buster).

dmbois commented on Jul 30, 2019

I created a GitHub account just now for the express purpose of returning here to say: holy crap, it worked! thankyouthankyouthankyou

inherited my mom's mid-2009 15" MB Pro when she passed a few years ago. It's still a super beefy rig (4g dual core half gig storage -- very well suited for creative content production), excepting of course for the Cupertino Colossus' insistence upon abandoning their own still-working hardware. I was determined to return it to a state of usefulness. Ubuntu was the obvious choice. I'd tried it several years ago and really liked it. (fwiw, non-tech me had ZERO problems setting it up as a dual-boot in the PC / Windows environment on a Dell I'd had at the time, although that ease probably had a lot to do with having had a cooperative CD burner at the time).

Again -- I am *not* a super tech-savvy guy. Neither of our Apple "super drives" (hows THAT for cynical branding, btw?) work reliably (i.e. no burn-to-DVD), so the OS installation itself required my patience and LOTS of persistence.

And *then* I ran into the Broadcom / wifi issue ... good times hahaha

more persistence applied ... but even though my deep dive into a discomfort zone found me working through these steps VERY slowly / cautiously, at the culmination of the last step, first attempt, the clouds parted, a chorus of angels began singing, and *blink!* -- wifi visible and functional.

Super relieved, and extremely grateful. I have what's functionally a brand new decade old laptop. And it's again a nimble screamer of a rig. Thank you again! -dave

niftylettuce commented on Jul 30, 2019

Author

@dmbois 😊

madmedicnl commented on Oct 21, 2019

Thank you so much for this

bmccann36 commented on Oct 27, 2019

Thanks!

This worked for me.

One thing I had to do was run `chmod -R 777 /var/www` because I was getting a 403 access denied error at step 15. Probably would be better to allow just read access to the specific file that we moved there. Might be worth adding to the instructions if this is an issue a lot of people will run into.

hocuspocuss commented on Nov 3, 2019 • edited ▼

I tried and when I get to the line where "... webfsd.conf..." (line 11 and 12), it does not work. This file does not exist in the `/etc` folder....

kitchen commented on May 23, 2020

Thanks!

This worked for me.

One thing I had to do was run `chmod -R 777 /var/www` because I was getting a 403 access denied error at step 15. Probably would be better to allow just read access to the specific file that we moved there. Might be worth adding to the instructions if this is an issue a lot of people will run into.

please do not ever use `chmod 777` unless you absolutely know what you're doing. You almost certainly could have simply done `chmod -R +r /var/www` (which grants read permissions recursively to everything under `/var/www`) instead and not have compromised the security of your system.

mdeterink commented on Jun 9, 2020 • edited ▼

Dear [@niftylettuce](#), thank you very much for your 20 steps above. I have a 2006 iMac 6,1 and I managed to successfully install Ubuntu 20.04 on it using this thread: <https://mesom.de/efi32boot/index.html>
Next, I follow your steps above, since I suspect that my iMac ethernet adapter is broken. It all goes well until step 15. Here it goes wrong. See the error message below:

```
mdeterink@iMac:~$ sudo dpkg -i ~/Desktop/firmware-b43-installer_019-5_all.deb (Reading database ...
228698 files and directories currently installed.) Preparing to unpack .../firmware-b43-installer_019-
5_all.deb ... Unpacking firmware-b43-installer (1:019-5) over (1:019-5) ... Setting up firmware-b43-
installer (1:019-5) ... No chroot environment found. Starting normal installation --2020-06-09
20:17:30-- https://www.lwfinger.com/b43-firmware/broadcom-wl-6.30.163.46.tar.bz2 Resolving
www.lwfinger.com (www.lwfinger.com)... 127.0.0.1 Connecting to www.lwfinger.com
(www.lwfinger.com)|127.0.0.1|:443... failed: Connection refused. /var/lib/dpkg/info/firmware-b43-
installer.postinst: Some problem occurred during the firmware download. Please check your internet
connection. dpkg: error processing package firmware-b43-installer (--install): installed firmware-b43-
installer package post-installation script subprocess returned error exit status 1 Errors were
encountered while processing: firmware-b43-installer mdeterink@iMac:~$
```

I do not know what to do. I checked my '/etc/hosts' file and it includes the line '127.0.0.1 www.lwfinger.com'. I would be very grateful if anyone can help me. Ubuntu is working very nicely on my old iMac, but without network it becomes impossible.

Thanks, Marco

mdeterink commented on Jun 10, 2020

Dear **@niftylettuce**, I just found the solution myself, I followed these steps and got my Wifi working :)

<https://askubuntu.com/questions/730799/installing-firmware-b43-installer-offline>

Thank you for your information here, it put me on the right track!

niftylettuce commented on Jun 10, 2020

Author

Glad to hear. There's a link to donate on my new website if you want to support my work:

<https://forwardemail.net>

lilhacker commented on Jun 21, 2020

Thank you so much for this!! Worked like a charm. I have a mid-2011 Mac Mini on which I had to install Linux post HDD failure. So this helped a lot.

niftylettuce commented on Jun 21, 2020

Author

No problem

hopemoran commented on Jun 24, 2020

@hocuspocuss were you able to find out the issue that caused there to be no webfsd.conf file? I am having the same issue at step 11.

ip-rookie commented on Oct 5, 2020

Hi all,

i got to step 13 , I used "sudo systemctl restart webfs" and got the following message "Job for webfs.service failed because the control process exited with error code. See 'systemctl status webfs.service' and 'journalctl -xe'"

when running those commands I got this

```
buntu@ubuntu:~/Desktop$ systemctl status webfs.service
```

- webfs.service - LSB: Webfs simple HTTP server

Loaded: loaded (/etc/init.d/webfs; generated)

Active: failed (Result: exit-code) since Mon 2020-10-05 22:18:05 UTC; 2min 41s ago

Docs: man:systemd-sysv-generator(8)

Process: 6986 ExecStart=/etc/init.d/webfs start (code=exited, status=2)

Tasks: 1 (limit: 4538)

Memory: 2.4M

CGroup: /system.slice/webfs.service

└─6648 /usr/bin/webfsd -k /var/run/webfs/webfsd.pid -r /var/www/html -u www-data -g www-data

Oct 05 22:18:05 ubuntu systemd[1]: Starting LSB: Webfs simple HTTP server...

Oct 05 22:18:05 ubuntu webfs[6986]: /etc/init.d/webfs: 48:
/etc/webfsd.conf: Syntax error: Unterminated quoted string

Oct 05 22:18:05 ubuntu systemd[1]: webfs.service: Control process
exited, code=exited, status=2/INVALIDARGUMENT

Oct 05 22:18:05 ubuntu systemd[1]: webfs.service: Failed with result
'exit-code'.

Oct 05 22:18:05 ubuntu systemd[1]: Failed to start LSB: Webfs simple
HTTP server.

ubuntu@ubuntu:~/Desktop\$ journalctl -xe

Oct 05 22:18:05 ubuntu systemd[1]: webfs.service: Control process
exited, code=exited, status=2/INVALIDARGUMENT

-- Subject: Unit process exited

-- Defined-By: systemd

-- Support: <http://www.ubuntu.com/support>

-- An ExecStart= process belonging to unit webfs.service has exited.

-- The process' exit code is 'exited' and its exit status is 2.

Oct 05 22:18:05 ubuntu systemd[1]: webfs.service: Failed with result
'exit-code'.

-- Subject: Unit failed

-- Defined-By: systemd

-- Support: <http://www.ubuntu.com/support>

-- The unit webfs.service has entered the 'failed' state with result 'exit-
code'.

Oct 05 22:18:05 ubuntu systemd[1]: Failed to start LSB: Webfs simple
HTTP server.

-- Subject: A start job for unit webfs.service has failed

-- Defined-By: systemd

-- Support: <http://www.ubuntu.com/support>

-- A start job for unit webfs.service has finished with a failure.

-- The job identifier is 2724 and the job result is failed.

Oct 05 22:18:05 ubuntu sudo[6983]: pam_unix(sudo:session): session closed for user root

I am very new to this and have no idea what to do. if anyone can help i would be very grateful :)

dakos-abyss commented on Nov 16, 2020

Hello, installing Debian 10 on my 2011 Mac Mini (Mac Mini 5.2), and I've run into an issue on Step 15:

```
sudo dpkg -i ~/Desktop/firmware-b43-installer_019-6_all.deb
(Reading database ... 257324 files and directories currently installed.)
Preparing to unpack .../firmware-b43-installer_019-6_all.deb ...
Unpacking firmware-b43-installer (1:019-6) over (1:019-6) ...
dpkg: dependency problems prevent configuration of firmware-b43-installer:
 firmware-b43-installer depends on wget; however;
  Package wget is not installed.

dpkg: error processing package firmware-b43-installer (--install):
 dependency problems - leaving unconfigured
Errors were encountered while processing:
 firmware-b43-installer
```

zfortier commented on Jan 5, 2021

@dakos-abyss

Hello, installing Debian 10 on my 2011 Mac Mini (Mac Mini 5.2), and I've run into an issue on Step 15:
[...]

The error is telling you what you need to do...

```
firmware-b43-installer depends on wget; however;
Package wget is not installed.
```

I think you should try installing `wget` first....

zfortier commented on Jan 5, 2021

This can be done much easier by using netcat to serve the file. That way you don't need any of the web server steps.

1. Download all the files (`b43-fwcutter` , `firmware-b43-installer` and <http://www.lwfinger.com/b43-firmware/broadcom-wl-5.100.138.tar.bz2>)
2. Open a terminal and run these commands:


```
cp /etc/hosts /etc/hosts.bak
echo 127.0.0.1 www.lwfinger.com >> /etc/hosts
{ echo -ne "HTTP/1.0 200 OK\r\nContent-Length: $(wc -c <broadcom-wl-5.100.138.tar.bz2)\r\n\r\n";
cat broadcom-wl-5.100.138.tar.bz2; } | nc -l -p 80 &
dpkg -i ~/Desktop/b43-fwcutter.deb
dpkg -i ~/Desktop/firmware-b43-installer.deb
cat /etc/hosts.bak > /etc/hosts
```

Worked for me 🙏

aditya9710 commented on Mar 5, 2021 • edited ▼

Hi, installed Ubuntu 20.04 on my Macbook Pro 2019. I'm facing some issues in the procedure. After package warnings from dpkg, it displays this:

```
Preparing to unpack .../webfs_1.21+ds1-12+b1_amd64.deb ...
Unpacking webfs (1.21+ds1-12+b1) over (1.21+ds1-12+b1) ...
Setting up webfs (1.21+ds1-12+b1) ...
dpkg: error processing package webfs (--install):
 installed webfs package post-installation script subprocess returned error exit status 10
Processing triggers for systemd (245.4-4ubuntu3.4) ...
Processing triggers for man-db (2.9.1-1) ...
Errors were encountered while processing:
 webfs
```

Would appreciate any help in resolving the issue.

krimlon commented on Apr 2, 2021

Hi, installed Ubuntu 20.04 on my Macbook Pro 2019. I'm facing some issues in the procedure. After package warnings from dpkg, it displays this:

```
Preparing to unpack .../webfs_1.21+ds1-12+b1_amd64.deb ...
Unpacking webfs (1.21+ds1-12+b1) over (1.21+ds1-12+b1) ...
Setting up webfs (1.21+ds1-12+b1) ...
dpkg: error processing package webfs (--install):
 installed webfs package post-installation script subprocess returned error exit status 10
Processing triggers for systemd (245.4-4ubuntu3.4) ...
Processing triggers for man-db (2.9.1-1) ...
Errors were encountered while processing:
 webfs
```

Would appreciate any help in resolving the issue.

ya I'm having the same issue. hopefully someone can assist with this.

orbanbalage commented on Jul 21, 2021

See here for your model: <https://github.com/Dunedan/mbp-2016-linux#wi-fi>

ashutoshmjain commented on Feb 16, 2022

I am using Air 2012 . I installed Debian (full DVD on USB) wiping off Catalina completely. Everything worked great except for the WiFi. Getting WiFi needed some research but it is as simple as downloading two files ... Details on the page here <https://wireless.wiki.kernel.org/en/users/Drivers/brcm80211>

Most of the information on internet is quite outdated .. Now we have fully open sourced drivers for most of the older Broad-com WiFi cards. Just download Linux firmware from the link <https://git.kernel.org/?p=linux/kernel/git/firmware/linux-firmware.git> ; expand the archive on some internet connected machine . Copy brcm/bcm43xx-0.fw and brcm/bcm43xx_hdr-0.fw to /lib/firmware/brcm (or wherever firmware is normally installed on your system) via a usb .. and reboot

petercorke commented on Oct 1, 2022

Hi, nice procedure but like some others I got stuck at step 15. I'm working with Ubuntu 22.04, and `dpkg` is doing an https (not http) request to the webserver which it can't handle, it gives a 443 error. Not sure if there's an easy way around this, `webfsd` has no support for https and I can't see anyway to make `dpkg` to use http instead of https. Also, for 22.04 the version number used at step 4 is different.

ghbry commented on May 6, 2023

I installed the oem version of Xubuntu on my Macbook Air (2016). It found the wifi connection during the setup without problems. After that i changed the oem to a custom version by dblclicking the shortcut on the desktop for redistribution to users. Restarted and wifi works. Hope it will help others.

cajsamra commented on Jun 13, 2023

I gave this a try when I discovered my entire Broadcom device was not working for my new ubuntu install - both for wired and wireless were not working. It failed at step #8 because of missing dependencies. After trying to resolve them briefly, I decided to re-install from scratch. This time, I had a wired connection, and I checked all the boxes for third party software and updates. This ensured that all required packages would be downloaded. That worked. After the install, the wired connection worked but the WiFi did not. I found a fix for that here: <https://www.linuxfordevices.com/tutorials/ubuntu/no-wi-fi-adapter-found-error>