Netgear WNDR3400v1

Netgear WNDR3400 **v1**

Availability: common

Manuf/OEM/ODM Foxconn

FCC approval date: 01 April 2010

(Est.) release date: 01 September 2010

UPC: 606449071146 (UPC DB, On eBay)

Country of manuf.: China

Serial Num Prefix: 2BL, 2R8, 2PF, 2BK, 2R7, 2HT, 2RB, 2F0

(Not sure if should be zero or the letter "O"), and 2R9

Amazon image

ASIN

B0041LYY6K (, On **Amazon**, On **CCC**, **multiple uses**)

multiple revisions of this device, use caution

Type: wireless router

FCC ID: PY309300116

Industry Canada ID: 4054A-09300116

Power: 12 VDC, **1.5** A

Connector type: barrel

CPU1: Broadcom BCM4718A1

FLA1: 8 MiB (**Macronix** MX25L6405DMI-12G)

RAM1: 64 MiB (**Samsung** K4T51163QG-HCE6)

Expansion IFs: USB 2.0

USB ports: 1

WI1 chip1: Broadcom BCM4718A1

WI1 802dot11 protocols: bgn

WI1 MIMO config: 2x2:2

WI1 antenna connector: none

WI2 chip1: Broadcom BCM43224

WI2 802dot11 protocols: an

WI2 MIMO config: 2x2:2

WI2 antenna connector: none

ETH chip1: Broadcom BCM4718A1

Switch: Broadcom BCM5325E

LAN speed: 10/100

LAN ports: 4

WAN speed: 10/100

WAN ports: 1

abgn

Stock FW OS: Linux 2.6.22

Third party firmware supported: DD-WRT • (List)

Flags: DFS

Default SSID: NETGEAR (43 addl. devices), NETGEAR-5G

Default IP address: 192.168.1.1

the IP **192.168.1.1** is used by 1096 additional devices

of which 90 are **Netgear** devices

Default login user: admin

Default login password: password

admin:password credentials used by 380 additional devices

of which 274 are **Netgear** devices

802dot11 OUI: 20:4E:7F (14 E, 15 W, 2011), 30:46:9A (11 E, 14 W, 2009), E0:46:9A (13 E, 15 W, 2010), E0:91:F5 (11 E, 12 W, 2009)

Ethernet OUI: 20:4E:7F (14 E, 15 W, 2011), 30:46:9A (11 E, 14 W, 2009), E0:46:9A (13 E, 15 W, 2010), E0:91:F5 (11 E, 12 W, 2009)

	FCC ID
Netgear WNDR3300v2	PY309300116

	CPU1 brand	WI1 chip1 brand	WI2 chip1 brand
Netgear WNDR3400v1	Broadcom	Broadcom	Broadcom
Netgear WNDR3400v2	Broadcom	Broadcom	Broadcom
Netgear WNDR3400v3	Broadcom	Broadcom	Broadcom

For a list of all currently documented **Broadcom** chipsets with specifications, see **Broadcom**.

N600 Wireless Dual Band Router

• Support page
Simultaneous Dual-Band, 10/100 Mbps Ethernet (FE)
The default SSIDs for the device are assumed to be **NETGEAR** and **NETGEAR-5G**.
Manuf. by *Foxconn* / *Hon Hai* / *Ambit*
The device is on the *DD-WRT supported device table* noted as a WiP.

- On the DD-WRT forums (test build on pg7)

Contents

Links of Interest

- WNDR3400 5g LED doesn't flash with activity

- Netgear WNDR3300 v2 and WNDR3400
- GURU's Netgear wndr 3400 uodate
- Netgear WNDR3400 support - Can I help?

Flashing

Flashing OpenWrt

- *WIP*

WARNING: This is highly beta OpenWRT version. This image may brick your router. Make sure you have serial cable to debrick router!!

- **So far tests indicate no WebUI, No Wireless, it has telnet access.**

Currently, there is a development version of OpenWRT for this router located at:
http://downloads.openwrt.org/snapshots/trunk/brcm47xx/openwrt-wndr3400_v1-squashfs.chk
Also, this is not beginner firmware. If you've never dealt with a console, avoid!
To flash:

1. Do a 30/30/30 reset.
2. With the stock firmware, flash that build.
3. Do a 30/30/30 reset again.

By default, OpenWRT does not include a web interface and as such, must be installed using opkg or must be compiled with it included.
Telnet is available. Once the password is changed, telnet becomes unavailable and ssh becomes available.
Support for this model is still in development so not everything works. The build linked above is using kernel version 3.6 as of this writing. I've been told that 3.8 works much better for it. Unconfirmed however.
Wireless is disabled by default. To enable, type in the console:
uci set wireless.@wifi-device[0].disabled=0

Flashing Tomato

- *Netgear WNDR3400 v1* - (beta) Tomato support

WARNING: This is highly beta Tomato version. This image may brick your router. Make sure you have serial cable to debrick router!!

- Beta
- Note: Intial flash must be done from the OEM firmware. If your running dd-wrt, revert to the OEM firmware first.

1. restore default settings
2. flash using tomato image via GUI
3. after flash leave router for 5–7 minutes until ping 192.168.1.1 will return
4. log into Tomato and first of all erase nvram!!
5. after erase 2nd radio will disapear. Dont panic :) Just make reboot one more time
6. log into tomato and Have fun

TomatoUSB Support Details:
- both radios works
- usb works
- power led and usb led works correct
- wps and reset buttons works
- VLANs are not supported yet
- wireless leds may not work correct
- upgrade router via GUI will brick router!!
Image: tomato-Netgear-3400v1-K26USB-1.28.RT-101.chk

Flashing DD-WRT

WARNING: Initial flash must be with a tailed build, after which any build with -nv64k can be used.

- Supported 17567

Source
Step 1: Backup your current router configuration

1. Login to your router… probably at http://192.168.1.1
2. Find the maintenance group in the left menu and click on ‘Backup Settings‘
3. Click the button labeled ‘Back Up’ You’ll be prompted to download a file, save it and stick it on your desktop or someplace safe in case you need it later.

Step 2: Download factory firmware (just in case!!)

As a precaution, I chose to download the factory firmware ahead of time so I could have it on hand if this entire process fails and I need to revert everything.

- Download: Recovery Instructions from Netgear
- Download: WNDR3400v1 Firmware

Note: These recovery instructions have not been tested by me, use at your own risk.

Step 3: Download the DD-WRT firmware

Downloading via the normal DD-WRT process didn't work out because it stated the router wasn't compatible and therefore wouldn't provide a link.

There is now a WNDR3400 chk file included in the official SVN stream, you can browse the 12/08/2011 release files here.

- Download: dd-wrt.v24-17990_NEWD-2_K2.6_mini-WNDR3400.chk

Step 4: Flash DD-WRT on to the router

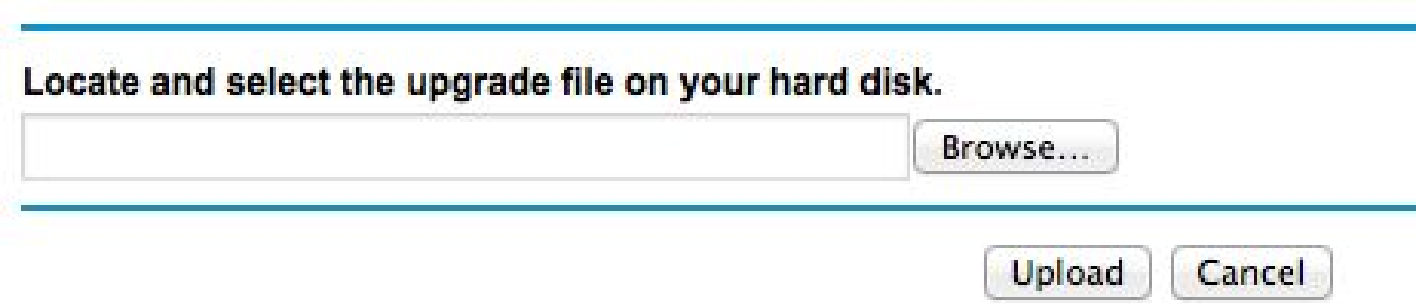
Before flashing the firmware on your router, it's highly highly suggested to do a 30-30-30 reset. You can find instructions for this here: http://www.dd-wrt.com/phpBB2/viewtopic.php?t=51486

Quoting from the "peacock" thread in the DD-WRT forums:

"Failing to do a hard reset and failing to wait after flashing are the two most common NOOB errors that lead them to a world of unnecessary dd-wrt pain! This is not a minor optional step. The firmware writes information to the Nvram. This step clears that information. If you don't clear it properly, parts of the old information be present with the new firmware, which can make it not operate properly. Don't cut corners. Doing it before you upgrade can be very important; a hard reset is not just for after upgrades."

After performing the 30-30-30 reset, log back in to the router and flash it via the web gui.

1. Do NOT use a wireless connection to upload firmware. Use a wired (LAN) connection.
2. Login to your router… probably at http://192.168.1.1
3. Find the maintenance group in the left menu and click on "Router Upgrade"
4. Click the browse button and find dd-wrt.v24-17990_NEWD-2_K2.6_mini-WNDR3400.chk



1. Click the "Upload" button and wait for the process to complete.
2. After the process is done and the router reboots, you can connect to http://192.168.1.1 and should see DD-WRT loaded successfully.
3. Perform another 30-30-30 reset.
4. After the reset procedue is done, login to the router and set a username & password.

Step 5: Upgrade to latest version of DD-WRT:

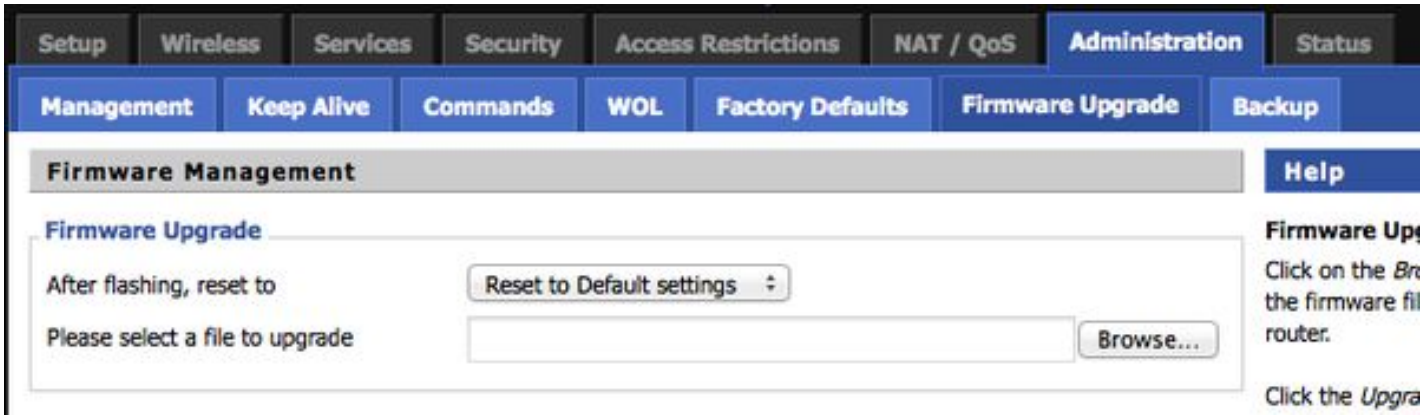
Now we have DD-WRT running on our WNDR3400v1, we can upgrade to the latest release using the normal flash method via the web gui.

With the latest release, I attmpted to load the "mega" file and it was a success…

- Download: dd-wrt.v24-17990_NEWD-2_K2.6_mega-nv64k.bin

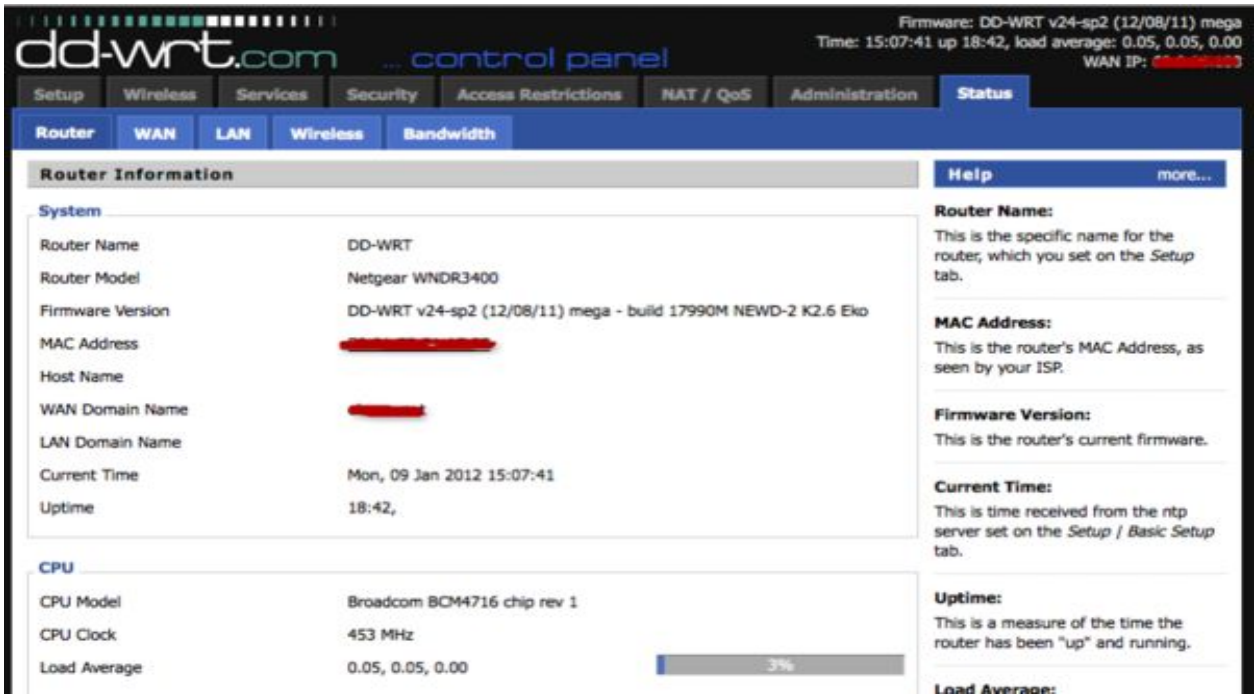
The upgrade process is pretty simple at this point. Some suggest doing a hard reset before and after upgrading. Since I just did a hard reset after installing DD-WRT, it's not really needed again unless you make some configuration changes before you upgrade.

1. Do a 30-30-30 reset if you need to.
2. Do NOT use a wireless connection to upload firmware. Use a wired (LAN) connection.
3. Login to your router… probably at http://192.168.1.1
4. Click on the Administration tab and then click on Firmware Upgrade:



1. Choose the option to Reset to Defaults after flashing.
2. Click browse and find dd-wrt.v24-17990_NEWD-2_K2.6_mega-nv64k.bin
3. Click the “Upgrade” button at the bottom of the page and wait….
    - The router will take a few minutes to upload the file and flash the firmware. During this time, the power light will flash.
    - A new page will open confirming that the upload was successful.
    - It’s advised to wait at least 5 minutes before clicking continue.
4. Do a 30-30-30 reset.
5. After the reset procedue is done, login to the router and set a username & password.

You should now see something like the screen below that shows the 17990 firmware loaded on your WNDR3400v1:



I’ve been running this on my router for a couple of days and all the features I need are active and working. Your mileage may vary….

Upgrading

Upgrade OpenWrt

Upgrade Tomato

Upgrade DD-WRT

Updating DD-WRT

If dd-wrt is already on the router follow these instructions. If stock firmware is on the router follow the flashing instructions.

1. Check for recommended builds here first.
2. Set your computer to a static IP of 192.168.1.7. (or to whatever subnet the router is on) Disable all firewalls and security. Disable wireless on your computer and only have the router connected to the flashing computer by the ethernet cable between the two.
3. Hard reset or 30/30/30 (If the router supports it, if not, reset to defults in the GUI) prior to flashing. Wait. Check for password page on re-login and change password.
4. Flash firmware. You can use the webgui except if you have a belkin router. (For belkin use tftp.exe to flash)
5. Wait...at least three minutes. Lights should return to normal. See important2, below. Failing to wait is how most people brick their routers.
6. Do a power cycle of the router. (Unplug the cord, count to 30 and plug it back in.)
7. Wait for the lights to return to normal usually about 2 minutes.
8. Hard reset or 30/30/30 again (If the router supports it, if not, reset to defults in the GUI). Wait. Check for the password page and re-login to change the password. Then you can reconfigure your settings manually.
9. Once configured set your computer back to autoIP and autoDNS.
10.

Important1: This Hard reset or 30/30/30 works fine for Asus router, but you do have to power cycle after the reset.

Important2: **After you flash the firmware, and before you do the hard reset, the router will be building some nvram settings. YOU MUST WAIT FOR THIS TO FINISH PRIOR TO DOING ANYTHING WITH THE ROUTER INCLUDING A HARD RESET. Usually, you can tell when this process is completed by the WAN light coming on, but it does take several minutes. Go have a beer. There are starting to be more and more people who BRICK their routers by not waiting until the nvram is rebuilt, PRIOR to doing a hard reset. YOU NEED TO WAIT!**

Reverting

Reverting to OEM Firmware from OpenWrt

Reverting to OEM Firmware from TomatoUSB

1. flash ofw image via GUI
2. after flash router wuill brick and power led will blink green light

3. flash ofw image one more time using tftp client
4. after flash make 30-30-30 reset

Original image: WNDR3400-V1.0.0.50_20.0.59-OFW.chk

Reverting to OEM Firmware from DD-WRT

Per Eko
There is simple way to flash original firmware.
-with router running dd-wrt, telnet in, do "mtd erase linux", wait until finished (2-3 min), then type "reboot"
-now router waits for new firmware - tftp the original .chk file (with your PC set to static IP 192.168.1.10 etc)
-when tftp transfer finishes, wait 3-4 min...

JTAG-Serial Info

JTAG

JTAG Pinouts

J14 - **DO NOT HOOK UPTO J10**

```
nTRST  1o o2  GND
  TDI  3o o4  GND
  TDO  5o o6  GND
  TMS  7o o8  GND
  TCK  9o o10 GND
nSRST 11o o12 N/C
```

Using Universal JTAG Adapter

```
 white  1o o2  black
   red  3o o4  GND
  blue  5o o6  GND
 green  7o o8  GND
yellow  9o o10 GND
orange 11o o12 N/C
```

JTAG Recovery

Serial

Serial Pinouts

JP1 = 3.3v TTL Serial, 115200/8/N , 1 row of six pins

```
GND 6 o
 RX  5 o
 N/C 4 o
 N/C 3 o
 TX  2 o
 VCC 1 o
```

this setup was tested on the 3/20/2013, some other websites are showing the RX and TX opposite and this why does not work for this type of router

Hyper terminal Setup in Windows XP

In Windows XP, Click Start Button - All Programs - Accessories - Communication - HyperTerminal
Enter a name for the connection, Click ok
Choose com port you adapter is plugged into, Click ok
Set:
Bits per second = 115200
Data Bits = 8
Parity = none
Stop bits = 1
Flow control = none
Click ok
Click File - Save As, and select a place to save it to so you don't have to enter the settings again.

Putty Setup in Windows XP

After installing putty, run it
Serial line = The COM port your using for serial (ie. COM3)
Speed = 115200
Click on Serial under Connection
Serial line to connect to = same as above (Serial line)
Speed (baud) = 115200
Data bits = 8
Stop bits = 1
Parity = none
Flow control = none
Click Session
Enter a name for your connection under saved sessions
Click Save
Click Open

Serial Recovery

As of March 2013

1. After Setting up the Putty session, power up your router with the USB serial TTL cable you should see some info scrolling on the screen, press control-c rapidly and it will come with a promt CFE>
2. type on this prompt tftpd to start the tftpd server, you should see the message saying the command START TFTP SERVER and the message READING::: ts ready to send the new firmware.
3. assuming you have download the latest Firmware from Netgear do the following, open a cmd terminal and go to the folder you have save the firmware, type the following : tftp -i 192.168.1.1 put FIRMWARE_FILE.chk, you should see some comments about this on the putty session like reading processing and programing.
4. the router will start itself give it some time until finish

it took me a while to sort out this router but i finally did it doing it this way.

USB Info

DD-WRT USB

The USB port is where you can connect an external USB hard drive or flash drive. Which can do a multitude of things. You can use in as a NAS, storage for a FTP server, use Optware to run external programs like torrent software, samba for sharing files to your network, share a USB printer with your network... The list of possibilities is long, it just takes a little research.

ProFTPd is included in most the newer builds of dd-wrt. Check the features chart to be sure.

Tomato

TomatoUSB comes with file sharing, ftp server and media server built in.
Tutorial: How to set up NAS and Optware on Tomato FOR TOTAL NOOBS

Vlan Info

DD-WRT Vlan Info

- WikiDevi:DD-WRT/VLAN Support Testing Needed

Pictures

FCCID PY309300116

Notes

Known GPIO pin support:
gpio enable 0 - Turns on 5 GHz blue
gpio disable 0 - Turns off 5 GHz blue
gpio enable 2 - Turns off USB
gpio disable 2 - Turns on USB
gpio enable 3 - Turns power light to green
gpio disable 3 - Turns power light off
gpio enable 7 - Turns power light to orange
gpio enable 7 - Turns power light from orange off

Boot Log

DD-WRT Notes

The WNDR3400 CVNA (Cablevision edition) default username and password is admin/optimum