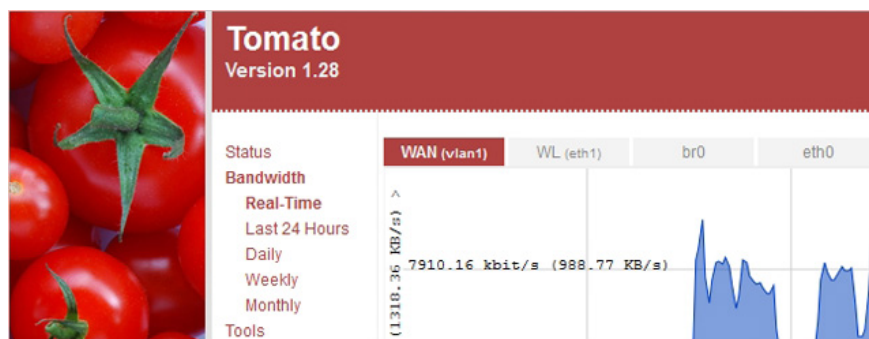


Increase network performance by installing Tomato on the Router

The following article will guide you how to harness the power of the Router with an open source firmware.

TipsMake.com - The router is a device that has a lot of powerful capabilities, but unfortunately, manufacturers often reduce its capabilities by only activating some limited features. The following article will guide you how to harness the power of the Router with an open source firmware.

Here we use the firmware called **Tomato** , which is an alternative to the **DD-WRT** firmware that the previous articles mentioned.



Why is Tomato?

Tomato is really a very powerful and user-friendly firmware full of features, it can replace the router's firmware.

Initially, the firmware is installed on the router when the factory capacity and user hands are only accompanied by basic features. As for Tomato, it offers a much wider range of features such as bandwidth monitoring . You don't need to take advantage of all of Tomato's features to be able to enjoy it, but even Beginners can also experience because Tomato is easy to use.

Prerequisites

1. This tutorial requires you to have a basic knowledge of the network and use the Windows operating system.
2. The following illustration uses the Linksys WRT54GL router, if you are using another model, check to make sure it is compatible with Tomato.

Note: In this article our computer is running Windows 7, if you are using Linux or Mac OS X it may be a little different, but will not interfere with the final result.

3. Tomato only works with certain routers, make sure your router is listed below. Then proceed to install Tomato.

Note: other routers can still work with Tomato, but the models listed below have been tested and work best.

1. ASUS WL-500G Premium
2. ASUS WL520GU
3. ASUS WL500GE
4. Buffalo WHR-HP-G54
5. Buffalo WHR-G54S
6. Buffalo WZR-G54
7. Buffalo WBR2-G54
8. Buffalo WHR-G125
9. Buffalo WZR-HP-G54
10. Buffalo WVR-G54-NF
11. Buffalo WHR3-AG54
12. Buffalo WZR-RS-G54
13. Buffalo WZR-RS-G54HP
14. Buffalo WHR2-A54-G54
15. Linksys WRT54G v1-4
16. Linksys WRT54GL v1.x
17. Linksys WRT54GS v1-v4
18. Linksys WRTSL54GS
19. Microsoft MN-700
20. Motorola WR850G / GP
21. Sparklan WX6615GT
22. Fuji RT390W

Install Tomato

First you need to set up your router on the network. By default, most routers with internal IP addresses are 192.168.1.1. Open your browser and enter this IP address. Next you will be asked to enter a username and password. Default account of Linksys WRT54GL router is ' *admin* ' and ' *admin* '. You are logged in temporarily, leaving the window alone or minimizing (not closing) and taking the next step.

The screenshot shows the Linksys WRT54GL web interface. The top navigation bar includes "LINKSYS by Cisco" and "Firmware Version: v4.30.15". The main menu is titled "Wireless-G Broadband Router" and includes tabs for "Setup", "Wireless", "Security", "Access Restrictions", "Applications & Gaming", "Administration", and "Status". The "Setup" tab is active, and the "Basic Setup" sub-tab is selected. The left sidebar shows a tree view with categories: "Language", "Internet Setup", "Optional Settings (required by some ISPs)", "Network Setup", "Router IP", and "Network Address Server Settings (DHCP)". The main content area is titled "Automatic Configuration - DHCP" and contains the following fields and options:

- Language: English
- Internet Connection Type: Automatic Configuration - DHCP
- Router Name: WRT54GL
- Host Name: [empty]
- Domain Name: [empty]
- MTU: Auto
- Size: 1500
- Local IP Address: 192.168.1.1
- Subnet Mask: 255.255.255.0
- DHCP Server: Enable Disable
- Starting IP Address: 192.168.1.100
- Maximum Number of DHCP Users: 50
- IP Address Range: 192.168.1.100 to 149
- Client Lease Time: 0 minutes (0 means one day)
- Static DNS 1: 0.0.0.0
- Static DNS 2: 0.0.0.0

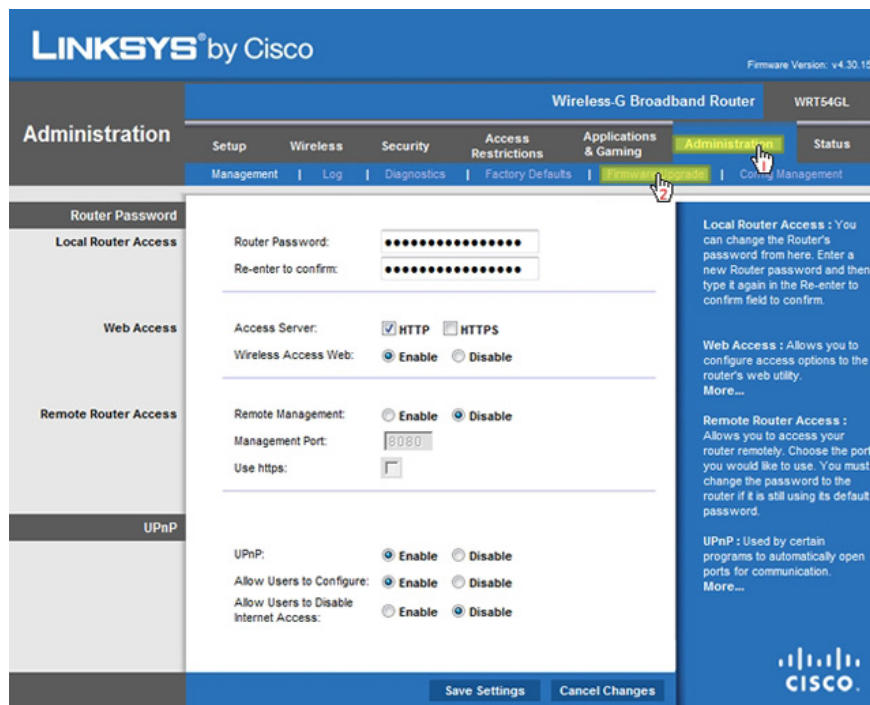
On the right side, there is a blue sidebar with explanatory text:

- Automatic Configuration - DHCP:** This setting is most commonly used by Cable operators.
- Host Name:** Enter the host name provided by your ISP.
- Domain Name:** Enter the domain name provided by your ISP. [More...](#)
- Local IP Address:** This is the address of the router.
- Subnet Mask:** This is the subnet mask of the router.
- DHCP Server:** Allows the router to manage your IP addresses.
- Starting IP Address:** The address you would like to start with.
- Maximum number of DHCP Users:** You may limit the number of addresses your router hands out. [More...](#)

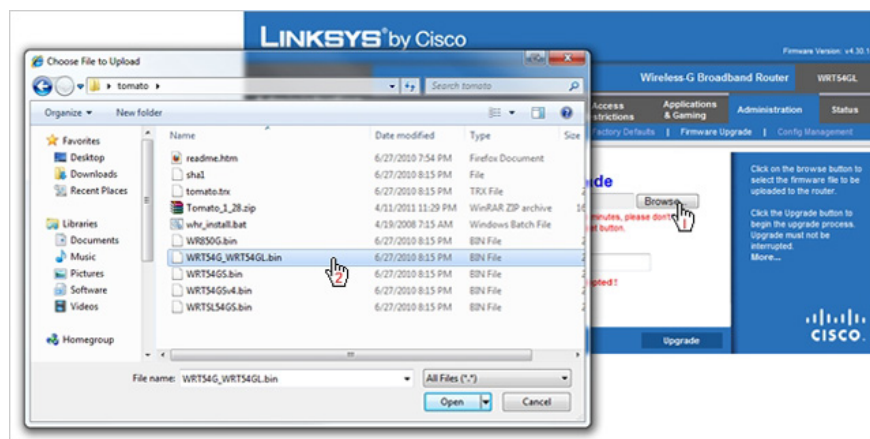
Visit the homepage of **Polarcloud** to download the latest version of Tomato. There is a *Tomato_1_28.zip* version here, although it was released a year ago, but it is still the latest version that has integrated software patches and updates of Dnsmasq (a lightweight DNS and DHCP server).

Now extract the downloaded *Tomato_1_28.zip* file, you will see 9 files in it.

Back to your browser window, switch to the **Administration** tab, choose **Firmware Upgrade** right below.



Click the **Browse** button and navigate to the folder where the Tomato files have been extracted. Select the file that matches your router, here we install on the **Linksys WRT54GL** router, so select the *WRT54G_WRT54GL.bin* file. Then click the **Upgrade** button. Your router will have Tomato installed, this process takes about a few minutes to complete.



The router installation will restart automatically, and your computer will try to capture the IP address from the DHCP server. Restart your browser again to see Tomato's first interface.

Tomato
Version 1.28

WRT54GL

Status	System
Overview	Name: WRT54GL
Device List	Model: Linksys WRT54G/GS/GL
Logs	Time: Tue, 12 Apr 2011 00:41:01 -0700
Bandwidth	Uptime: 0 days, 00:05:14
Real-Time	CPU Load (1 / 5 / 15 mins): 0.03 / 0.03 / 0.00
Last 24 Hours	Total / Free Memory: 14.19 MB / 6,008.00 KB (41.35%)
Daily	
Weekly	
Monthly	
Tools	WAN
Basic	MAC Address: 00:25:9C:5E:36:03
Advanced	Connection Type: DHCP
Port Forwarding	IP Address:
QoS	Subnet Mask: 255.255.255.0
Access Restriction	Gateway:
Administration	DNS: 208.59.247.45:53, 208.59.247.46:53
About	MTU: 1500
Reboot...	Status: Connected
Shutdown...	Connection Uptime: 0 days, 00:05:05
Logout	Remaining Lease Time: 6 days, 23:54:55
	<input type="button" value="Renew"/> <input type="button" value="Release"/>
	LAN
	Router MAC Address: 00:25:9C:5E:36:02
	Router IP Address: 192.168.1.1
	Subnet Mask: 255.255.255.0
	DHCP: 192.168.1.100 - 192.168.1.149

So it was relatively successful. Next we need to secure our wireless network connection to avoid the thief from looking at it. On the left menu, click **Basic**, look to the right screen, and scroll down under **Wireless**, change the **Security** entry to *WPA2 Personal*. You can choose a different encryption mode, but it is recommended to select WPA2 Personal to increase security on multi-connection. Don't forget to change your **SSID** to something more creative like '*Pretty Fly For A WiFi*' or '*FBI Surveillance Van*'.

Tomato
Version 1.28

WRT54GL

Status
Overview
Device List
Logs
Bandwidth
Real-Time
Last 24 Hours
Daily
Weekly
Monthly
Tools
Basic
Network
Identification
Time
DDNS
Static DHCP
Wireless Filter
Advanced
Port Forwarding
QoS
Access Restriction
Administration
About
Reboot...
Shutdown...
Logout

WAN / Internet

Type: DHCP
MTU: Default (1500)

LAN

Router IP Address: 192.168.1.1
Subnet Mask: 255.255.255.0
Static DNS: 0.0.0.0 (IP,port)
0.0.0.0
0.0.0.0

DHCP Server:
IP Address Range: 192.168.1.100 - 192.168.1.149 (50)
Lease Time: 1440 (minutes)
WINS: 0.0.0.0

Wireless

Enable Wireless:
MAC Address: 00:90:4C:5F:00:2A
Wireless Mode: Access Point
B/G Mode: Mixed
SSID: linksys
Broadcast:
Channel: 6 - 2.437 GHz Scan
Security: WPA2 Personal
Encryption: TKIP
Shared Key: [Progress Bar] Random
Group Key Renewal: 3600 (seconds)

If you want, you can also reconfigure the IP address of the **DHCP server** and WiFi channel. To determine the best WiFi channel you can use, click the **Scan** button next to the Channel drop-down menu.

Tomato
Version 1.28

WRT54GL

Status
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WAN / Internet

Type: DHCP
MTU: Default (1500)

LAN

Router IP Address: 192.168.1.1
Subnet Mask: 255.255.255.0
Static DNS: 0.0.0.0 (IP,port)
0.0.0.0
0.0.0.0

DHCP Server:
IP Address Range: 192.168.1.100 - 192.168.1.149 (50)
Lease Time: 1440 (minutes)
WINS: 0.0.0.0

Wireless

Enable Wireless:
MAC Address: 00:90:4C:5F:00:2A
Wireless Mode: Access Point
B/G Mode: Mixed
SSID: linksys
Broadcast:
Channel: 6 - 2.437 GHz Scan
Security: WPA2 Personal
Encryption: TKIP
Shared Key: [Progress Bar] Random
Group Key Renewal: 3600 (seconds)

You will see a list of WiFi networks with the channels they are using. Please select an unused channel to avoid frequency interference.

Just a few basic steps you will see Tomato favorites by the clean user interface and powerful features.

You finished reading the article "**Increase network performance by installing Tomato on the Router**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.