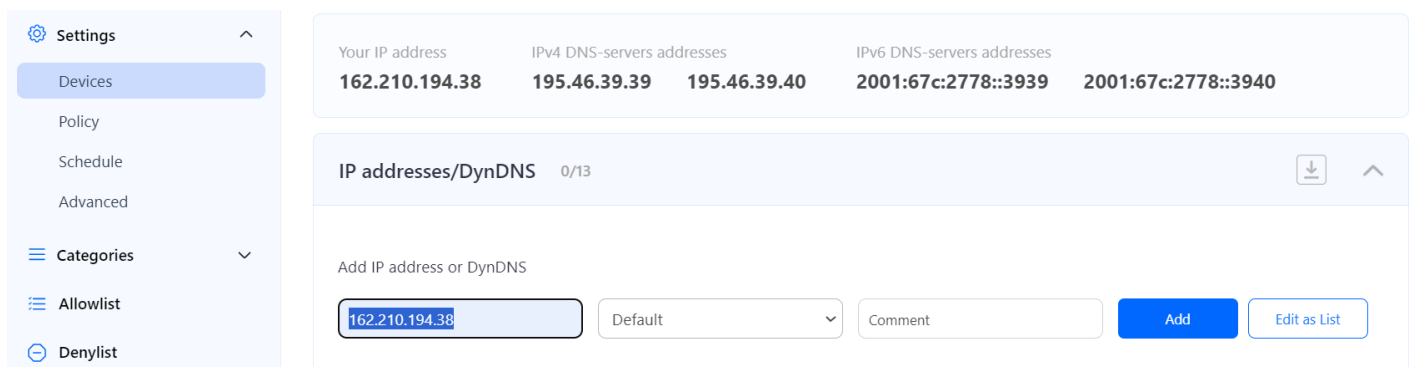


# Asus and Asuswrt-Merlin

## Router Setup

### Router with Static IP address configuration

1. Go to SafeDNS **Dashboard > Settings > Devices** and copy your IP address to the "**IP addresses / DynDNS**" box, choose a policy, and click "**Add**".



The screenshot shows the SafeDNS Settings - Devices page. On the left is a sidebar with navigation options: Settings (gear icon), Devices (selected, blue bar), Policy, Schedule, Advanced, Categories (three horizontal lines icon), Allowlist (three horizontal lines icon), and Denylist (circle with slash icon). The main content area has a header with three sections: 'Your IP address' showing 162.210.194.38, 'IPv4 DNS-servers addresses' showing 195.46.39.39 and 195.46.39.40, and 'IPv6 DNS-servers addresses' showing 2001:67c:2778::3939 and 2001:67c:2778::3940. Below this is a section titled 'IP addresses/DynDNS' with a counter '0/13' and a download icon. Underneath is a form to 'Add IP address or DynDNS' with a text input field containing '162.210.194.38', a dropdown menu set to 'Default', a 'Comment' text input field, and two buttons: 'Add' (blue) and 'Edit as List' (blue outline).

2. Open a browser and type in the Default Gateway address into your browser's URL address bar. By default, it is 192.168.1.1



# SIGN IN

RT-AC51U

Sign in with your ASUS router account

Sign in

Your router might have a different Default Gateway IP address. Check the backside of your router to find the Default Gateway IP address of your particular router.

3. Once you log in, click on the WAN tab in the Advanced Settings section.



4. You will find the WAN DNS Settings tab there. Press on the NO option next to Connect to DNS server automatically.

**General**

**Network Map**

**Guest Network**

**Traffic Manager**

**Parental Controls**

**USB Application**

**AiCloud 2.0**

**Tools**

**Advanced Settings**

**Wireless**

**LAN**

**WAN**

**IPv6**

**VPN**

### WAN - Internet Connection

RT-AC66U supports several connection types to WAN (wide area network). These types are selected from the dropdown menu beside WAN Connection Type. The setting fields differ depending on the connection type you selected.

Configure the Ethernet WAN settings of RT-AC66U.

**Basic Config**

|                                      |   |
|--------------------------------------|---|
| WAN Connection Type                  | Automatic IP  |
| Enable WAN                           | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| Enable NAT                           | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| Enable UPnP <a href="#">UPnP FAQ</a> | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| UPnP: Allowed internal port range    | 1024 to 65535   |
| UPnP: Allowed external port range    | 1 to 65535  |

**WAN DNS Setting**

|                                     |   |
|-------------------------------------|---|
| Connect to DNS Server automatically | <input type="radio"/> Yes <input checked="" type="radio"/> No |
| DNS Server1                         |   |
| DNS Server2                         |   |

**Account Settings**

|                |      |
|----------------|------|
| Authentication | None |
|----------------|------|

5. In the DNS Server1 and DNS Server2 tabs, enter the following DNS addresses:

- 195.46.39.39
- 195.46.39.40

6. To save the changes, press Apply and restart your router.

**Special Requirement from ISP**

|                             |                           |
|-----------------------------|---------------------------|
| Host Name                   |                           |
| WAN MTU                     | 1500                      |
| MAC Address                 | <a href="#">MAC Clone</a> |
| DHCP query frequency        | Aggressive Mode           |
| Manual clientid (Option 61) |                           |

**Apply**

In the Asus router, it's possible to force DNS traffic through port 53. These are the steps:

1. Click on WAN and go to Port trigger.
2. Enable the Port trigger.

3. In the section trigger port list enter:

name: SafeDNS

trigger port: 53

protocol: TCP

incoming port: 53

protocol: UDP

4. Click Add and Apply.

By blocking port 53, all devices connected to the router will be forced to use the SafeDNS servers.

**You have successfully configured your router.**

Please note that settings take 5-7 minutes to apply.

Stats and filtering status update every 10 minutes.

## Router with Dynamic IP address configuration

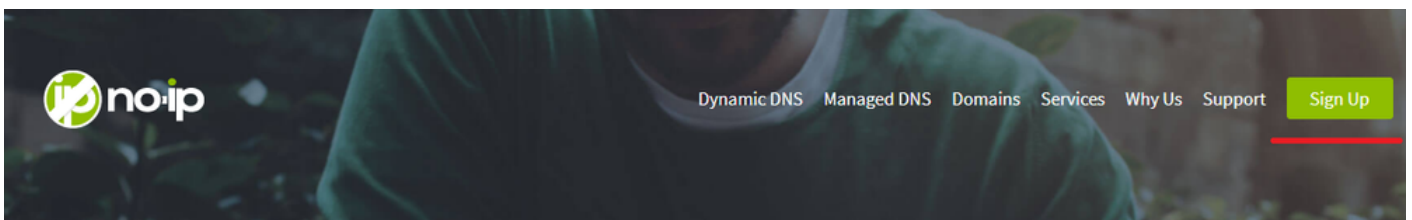
In case you have a Dynamic IP address, you need to configure the DynDNS/DDNS on the router using a Dynamic DNS service.

Most modern routers provide their own DynDNS services. We recommend using them.

If your router does not have its own DynDNS service provider, we recommend using third-party NO-IP DynDNS.

1. Check the DynDNS service available for your router. If available, we recommend using the No IP DynDNS service provider.

2. Go to the website [noip.com](https://noip.com) and sign up.



3. In your No-IP account, create a hostname (any name you can think of).

noip

Support

English

demo@safedns.com

Dashboard

Dynamic DNS

No-IP Hostnames

Personal Hostnames

Groups

Dynamic Update Client

Update Clients

Device Configuration Assistant

My Services

Account

Support Center

Add Priority Support


Hostnames

Create Hostname

Search...


| Hostname   | Last Update | IP / Target | Type |
|--|-------------|-------------|------|
| - You currently have 0 hostnames, add one to get started - |             |             |      |

Help with Hostnames



Configure Your No-IP Hostname

Ever wondered what the difference is between Round Robin, A, CNAME records, and more? A quick guide of each DNS record type as well as how you would use them.



No-IP Referral Program

Ready to Earn \$5 in No-IP Credits For Every Paid Customer That You Refer to No-IP?

my@1462c31 2021-10-29T20:47:30Z web03

noip

Support

English

demo@safedns.com

Dashboard

Dynamic DNS

No-IP Hostnames

Personal Hostnames

Groups

Dynamic Update Client

Update Clients

Device Configuration Assistant

My Services

Account

Support Center

Add Priority Support


Hostnames

Create Hostname

Search...


| Hostname  | Last Update               | IP / Target    | Type                           |
|---|---------------------------|----------------|--------------------------------|
| <div>justatestname01.ddns.net</div> <div>Active</div> | Oct 31, 2021<br>07:55 PDT | 162.210.194.38 | <div>A</div> <div>Modify</div> |

Help with Hostnames



Configure Your No-IP Hostname

Ever wondered what the difference is between Round Robin, A, CNAME records, and more? A quick guide of each DNS record type as well as how you would use them.



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Ready to Earn \$5 in No-IP Credits For Every Paid Customer That You Refer to No-IP?

my@1462c31 2021-10-29T20:47:30Z web03

## Create a Hostname

### Hostname ⓘ

justatestname01

### Domain ⓘ

ddns.net

### Record Type

☒ DNS Host (A) ⓘ

☐ AAAA (IPv6) ⓘ

☐ DNS Alias (CNAME) ⓘ

☐ Web Redirect ⓘ

[Manage](#) your Round Robin, TXT, SRV and DKIM records.

### IPv4 Address ⓘ

162.210.194.38

### Wildcard ⓘ

[Upgrade to Enhanced](#)

to enable wildcard hostnames.

### MX Records

[+ Add MX Records](#)

Cancel

Create Hostname

4. Go back to your router and configure DDNS/DynDNS.

- Select No-IP as "**Server**".
- Type in the created hostname in the "**Host Name**" field.
- Type in your No-IP account credentials as "Username" and "Password", and click "Save".
- Set "**Enablewildcard**" to NO.

ASUS RT-AC66U

Logout

Reboot

English

Quick Internet Setup

General

Network Map

Guest Network

Traffic Manager

Parental control

USB application

AICloud

Advanced Settings

Wireless

LAN

WAN

IPv6

VPN Server

Firewall

Administration

Operation Mode: **wireless router**    Firmware Version: : **3.0.0.4.220**

SSID: **ASUS ASUS\_5G**

Internet Connection

Port Trigger

Virtual Server / Port Forwarding

DMZ

DDNS

NAT Passthrough

WAN - DDNS

DDNS (Dynamic Domain Name System) is a service that allows network clients to connect to the wireless router, even with a dynamic public IP address, through its registered domain name. The wireless router is embedded with the ASUS DDNS service and other DDNS services.

The wireless router currently uses a private WAN IP address (192.168.x.x, 10.x.x.x, or 172.16.x.x).  
This router may be in the multiple-NAT environment and DDNS service cannot work in this environment.

|                             |  |
|-----------------------------|--|
| Enable the DDNS Client      | <input checked="" type="radio"/> Yes <input type="radio"/> No    |
| Server                      | <input type="text" value="www.NO-IP.COM"/> <div>Free Trial</div> |
| Host Name                   | <input type="text" value="Example.No-IP.com"/>                   |
| User Name or E-mail Address | <input type="text" value="Example@user.com"/>                    |
| Password or DDNS Key        | <input type="password" value="....."/>                           |
| Enable wildcard             | <input type="radio"/> Yes <input checked="" type="radio"/> No    |

Apply

If everything is correct, DynDNS/DDNS settings will apply.

5. Go to SafeDNS **Dashboard > Settings > Devices** and copy your DynDNS hostname to the "**IP addresses / DynDNS**" box, choose a policy, and click "**Add**".



Main
User administration
Settings
Devices
Policy
Schedule
Advanced
Categories
Allowlist
Denylist
Stats
New Stats (Beta)

Devices Policy Schedule Advanced

Video instruction for setting up

Your IP address  
162.210.194.38
IPv4 DNS-servers addresses  
195.46.39.39  
195.46.39.40
IPv6 DNS-servers addresses  
2001:67c:2778::3939  
2001:67c:2778::3940
DoH address  
https://doh.safedns.com

IP addresses/DynDNS 0/13

Add IP address or DynDNS

justatestname01.ddns.net

Default

Comment

Add

Edit as List

Once added, you will see it in the DynDNS section of the Dashboard.

IP addresses/DynDNS 2/13

Add IP address or DynDNS

Enter an IP-address or DynDNS

Default

Comment

Add

Edit as List

IP address or DynDNS

IP address/DynDNS Policy Comment

justatestname01.ddns.net Default

6. Open a browser and type in the Default Gateway address into your browser's URL address bar. By default, it is 192.168.1.1



# SIGN IN

RT-AC51U

Sign in with your ASUS router account

Sign in

Your router might have a different Default Gateway IP address. Check the backside of your router to find the Default Gateway IP address of your particular router.

7. Once you log in, click on the WAN tab in the Advanced Settings section.



8. You will find the WAN DNS Settings tab there. Press on the NO option next to Connect to DNS server automatically.

**WAN - Internet Connection**

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**Basic Config**

|                                      |   |
|--------------------------------------|---|
| WAN Connection Type                  | Automatic IP  |
| Enable WAN                           | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| Enable NAT                           | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| Enable UPnP <a href="#">UPnP FAQ</a> | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| UPnP: Allowed internal port range    | 1024 to 65535   |
| UPnP: Allowed external port range    | 1 to 65535  |

**WAN DNS Setting**

|                                     |   |
|-------------------------------------|---|
| Connect to DNS Server automatically | <input type="radio"/> Yes <input checked="" type="radio"/> No |
| DNS Server1                         |   |
| DNS Server2                         |   |

**Account Settings**

|                |      |
|----------------|------|
| Authentication | None |
|----------------|------|

9. In the DNS Server1 and DNS Server2 tabs, enter the following DNS addresses:

- 195.46.39.39
- 195.46.39.40

10. To save the changes, press Apply and restart your router.

**Special Requirement from ISP**

|                             |                           |
|-----------------------------|---------------------------|
| Host Name                   |                           |
| WAN MTU                     | 1500                      |
| MAC Address                 | <a href="#">MAC Clone</a> |
| DHCP query frequency        | Aggressive Mode           |
| Manual clientid (Option 61) |                           |

**Apply**

In the Asus router, it's possible to force DNS traffic through port 53. These are the steps:

1. Click on WAN and go to Port trigger.
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3. In the section trigger port list enter:

name: SafeDNS

trigger port: 53

protocol: TCP

incoming port: 53

protocol: UDP

4. Click Add and Apply.

By blocking port 53, all devices connected to the router will be forced to use the SafeDNS servers.

**You have successfully configured your router.**

Please note that settings take 5-7 minutes to apply.

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---

## Asuswrt-Merlin DNS Director

This part of the article contains information for Asus routers with custom firmware Asuswrt-Merlin.

Asuswrt-Merlin is a third-party alternative firmware for Asus routers ([official page](#)).

List of the supported devices - [here](#).

DNS Director is a feature that allows you to force specific devices on your network to use specific DNS. This can be done globally, or on a per-device basis. Each of them can have a different nameserver enforced.

For example, you can have your LAN use a custom DNS server, but force your children's devices to use SafeDNS filtering.

Safe Family and Business plans users can group devices in up to 6 groups and filter them with different policies using the [NAT DNS feature](#).

The configuration can be found in the DNS Director tab, located in the LAN section:

## DNS Director

DNS Director allows you to force LAN devices to use a specific DNS server, which can be useful if you want to force them to use a filtering service that would block malicious or adult sites. You can set a global network-wide server, or client-specific servers. Beside the available presets you can also define up to three different custom servers to use.

A few special System options are available in the presets. "No Redirection" will bypass a global redirection, and "Router" will force clients to use the DNS provided by the router's DHCP server (or, the router itself if it's not defined).

### Settings

Enable DNS Director

ON

Global Redirection

User Defined 1

User defined DNS 1

IPv4: 195.46.39.39

IPv6:

User defined DNS 2

IPv4: 195.46.39.101

IPv6:

User defined DNS 3

IPv4: 195.46.39.102

IPv6:

### Client List (Max Limit : 64)

Client MAC address

Redirection

Add / Delete

ex : 04:42:1A:CD:54:80

No Redirection



ShieldTV

48:B0: [MAC address]

No Redirection



camelot

3C:7C: [MAC address]

User Defined 2



Galaxy Tab S5e

6C:00: [MAC address]

User Defined 1



Apply

## Configuring the filter using the DDclient

In rare cases when your router does not have a DynDNS/DDNS setting and your IP is Dynamic, you need to use third-party software - **DDclient** - on the PC connected to the network:

1. [Install DDclient](#) on a PC connected to the network. Once DDclient is installed, all devices connected to the same network will be filtered by the same rules.
2. Set up DNS servers in your router:

General

Network Map

Guest Network

Traffic Manager

Parental Controls

USB Application

AICloud 2.0

Tools

Advanced Settings

Wireless

LAN

WAN

IPv6

VPN

WAN - Internet Connection

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Configure the Ethernet WAN settings of RT-AC66U.

Basic Config

WAN Connection Type

Automatic IP

Enable WAN

☒ Yes ☐ No

Enable NAT

☒ Yes ☐ No

Enable UPnP

[UPnP FAQ](#)

☒ Yes ☐ No

UPnP: Allowed internal port range

1024 to 65535

UPnP: Allowed external port range

1 to 65535

WAN DNS Setting

Connect to DNS Server automatically

☐ Yes ☒ No

DNS Server1

DNS Server2

Account Settings

Authentication

None

Revision #5

Created 28 April 2024 19:42:33 by Val Redman

Updated 26 August 2024 12:43:03 by Mickaël Gauthier