

OpenWRT Netbird

version 1

This is a WIP and just some poorly redacted personal notes, I am working to make a real install guide

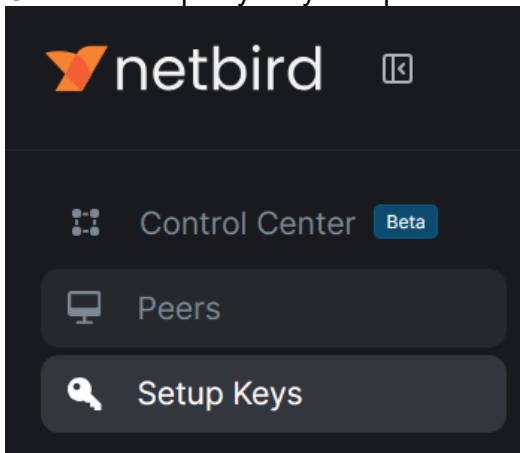
<https://docs.netbird.io/>


<https://docs.netbird.io/how-to/getting-started>

Make a free account on Netbird

Login to your dashboard:

Create a setup key for your openwrt router:






Create New Setup Key

Use this key to register new machines in your network

Name

Set an easily identifiable name for your key

OpeWRT 7800-2


 **Make this key reusable**


Use this type to enroll multiple peers

☒

Usage limit

For example, set to 30 if you want to enroll 30 peers





Unlimited 

Peer(s)


Expires in

Days until the key expires.
Leave empty for no expiration.




Unlimited 

Day(s)

 **Ephemeral Peers**

Peers that are offline for over 10 minutes will be removed automatically

☐


 **Allow Extra DNS Labels**

Enable multiple subdomain labels when enrolling peers
(e.g., host.dev.example.com).


☒


Auto-assigned groups

These groups will be automatically assigned to peers enrolled with this key


 Routing Peers

x



Learn more about [Setup Keys](#) 

Cancel

 Create Setup Key

Copy and store the setup key

On the OpenWRT router install netbird

```
opkg update
opkg install netbird
```

or for apk:

```
apk update
apk add netbird
```

Netbird is a rather large package around 21 MB written in Go so make sure your storage is sufficient

The netbird executable is stored in /usr/share/netbird.
The service is called from /etc/init.d/netbird

When installed you can setup with:

```
netbird up --setup-key <key from previous step>
```

After some time you will see:

```
root@R7800-2:~# netbird up --setup-key E20033F4-0C99-470E-A27A-5F066D8590EA
Connected
root@R7800-2:~#
```

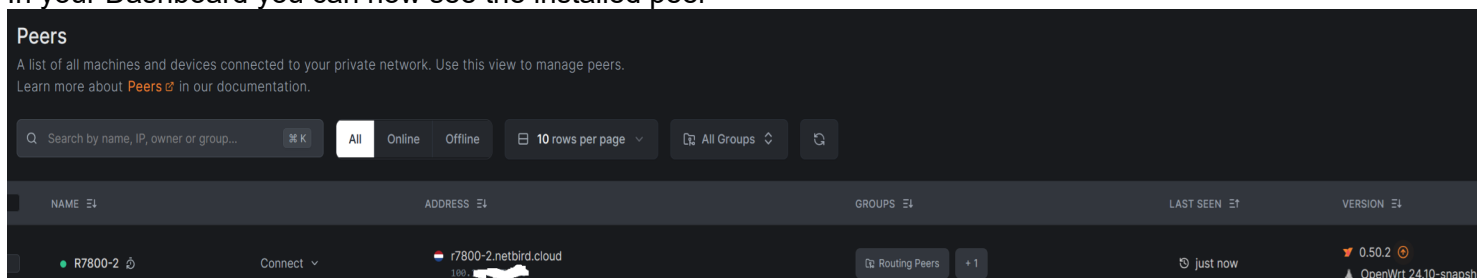
You can use **netbird help** to see the available commands e.g.:

netbird up/down/status etc

but using e.g.:

service netbird status/stop/start etc. will also work (for complete list: service netbird)

In your Dashboard you can now see the installed peer



with ifconfig or ip address show you should see the new interface (device) wt0

Next Firewall setup:

Luci > Network > scroll down and Add new interface:

Name e.g.: netbird1

Protocol: Unmanaged

Device: scroll down and choose wt0

Interfaces » netbird1

General Settings Advanced Settings Firewall Settings DHCP Server

Status

Device: wt0
Uptime: 0h 0m 9s
RX: 0 B (0 Pkts.)
TX: 0 B (0 Pkts.)

Protocol

Unmanaged ▼

Device

wt0 ▼

Disable this interface

☐

Bring up on boot

☒

/etc/config/network:

```
config interface 'netbird1'
    option proto 'none'
    option device 'wt0'
```

Head over to Firewall settings and add to LAN zone:

Interfaces » Netbird1

General Settings Advanced Settings Firewall Settings DHCP Server

Create / Assign firewall-zone

lan lan: wg_stos_6: (empty) ▼

/etc/config/firewall:

```
config zone
    option name 'lan'
    option input 'ACCEPT'
    option output 'ACCEPT'
    option forward 'ACCEPT'
    list network 'lan'
    list network 'netbird1'
```

In the end reboot the router or do service network restart, service firewall restart and service netbird restart.

Check with ifconfig (ip a) and ip route that the interface (wt0) and route are present:

root@DL-WRX36:~# **ip address show wt0**

```
31: wt0: <POINTOPOINT,NOARP,UP,LOWER_UP> mtu 1280 qdisc noqueue state UNKNOWN group
default qlen 1000
    link/none
    inet 100.105.224.116/16 brd 100.105.255.255 scope global wt0
        valid_lft forever preferred_lft forever
```

root@DL-WRX36:~# **ip route**

```
default via 192.168.0.1 dev wan proto static src 192.168.0.9
100.105.0.0/16 dev wt0 proto kernel scope link src 100.105.224.116
```

Showing netbird log:

```
cat /tmp/log/netbird/client.log
```

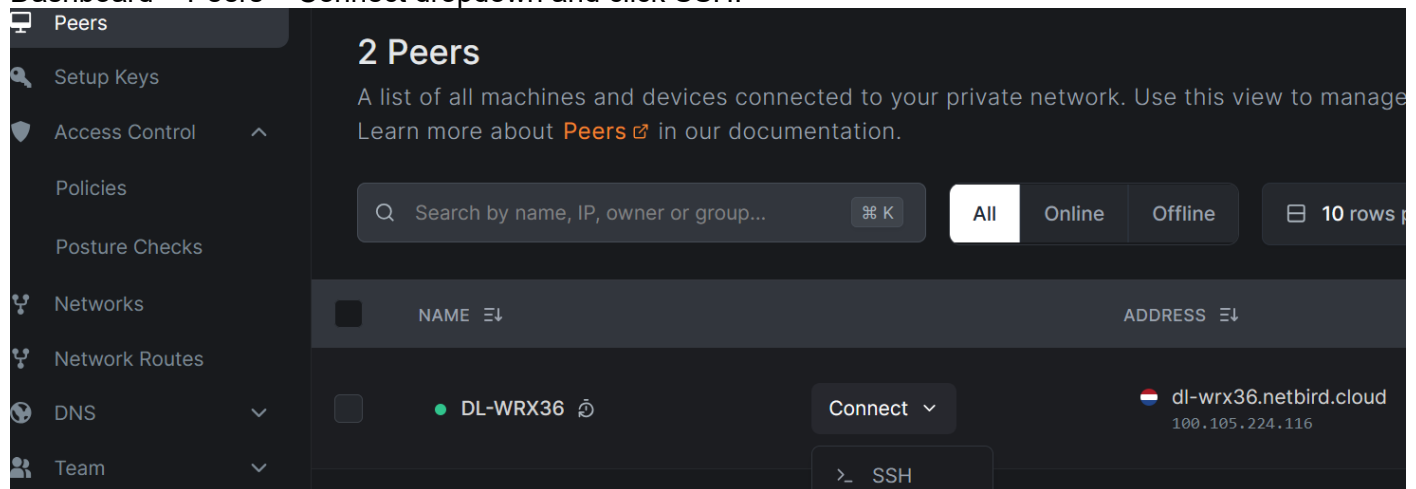
Allow SSH access from Dashboard:

Make sure SSH is allowed on the peer (<https://github.com/netbirdio/netbird/issues/2632>):

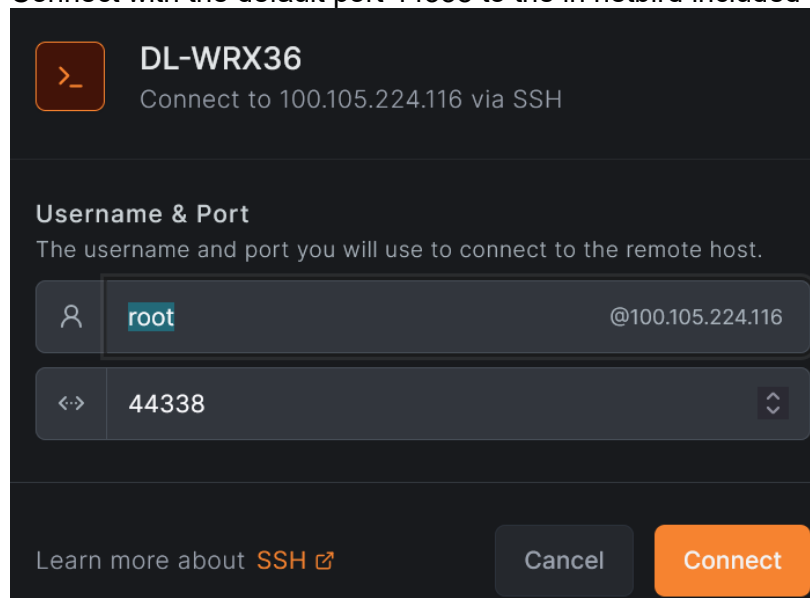
netbird down

netbird up --allow-server-ssh

Dashboard > Peers > Connect dropdown and click SSH:



Connect with the default port 44338 to the in netbird included SSH server:



netbird up will register the openwrt router as peer on the netbird dashboard bas the router is using the same IP address as you it can reigster in your own dashboard