



# Multi-Orbit Series

## User Manual

### Peplink Products:

MAX Orbit 2 / MAX Orbit 4 / MAX Orbit 8

Peplink Firmware 8.6.0  
June 2026

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## Introduction and Scope

Peplink routers provide link aggregation and load balancing across multiple WAN connections, allowing a combination of technologies like multi-orbit satellite, Ethernet, and Wi-Fi to be utilized to connect to the Internet.

The Multi-Orbit Series has a range of SD-WAN products suitable for many different deployments and markets. Entry level models such as the MAX Orbit 2 are suitable for smaller sites or branch offices. High-capacity models such as the MAX Orbit 8 are suitable for larger organizations and head offices.

This manual covers setting up Peplink routers and provides an introduction to their features and usage.

### Tips

Want to know more about Peplink routers? Visit our YouTube Channel for a video introduction!



<https://youtu.be/13M-JHRAICA>

## Glossary

The following terms, acronyms, and abbreviations are frequently used in this manual:

| Term        | Definition                            |
|-------------|---------------------------------------|
| DHCP        | Dynamic Host Configuration Protocol   |
| DNS         | Domain Name System                    |
| FQDN        | Fully Qualified Domain Name           |
| HTTP        | Hyper-Text Transfer Protocol          |
| ICMP        | Internet Control Message Protocol     |
| IP          | Internet Protocol                     |
| LAN         | Local Area Network                    |
| MAC Address | Media Access Control Address          |
| MTU         | Maximum Transmission Unit             |
| MSS         | Maximum Segment Size                  |
| NAT         | Network Address Translation           |
| PPPoE       | Point to Point Protocol over Ethernet |
| QoS         | Quality of Service                    |
| SNMP        | Simple Network Management Protocol    |
| TCP         | Transmission Control Protocol         |
| UDP         | User Datagram Protocol                |
| VPN         | Virtual Private Network               |
| VRRP        | Virtual Router Redundancy Protocol    |
| WAN         | Wide Area Network                     |
| WINS        | Windows Internet Name Service         |
| WLAN        | Wireless Local Area Network           |

# 1 Product Features

Peplink routers enable all LAN users to share broadband Internet connections, and they provide advanced features to enhance Internet access.

Our Multi-Orbit Series routers connect to multiple satellite terminals through their Orbit WAN ports, and allow simultaneous Internet connections across multiple satellite links. These connections can be bonded together using our SpeedFusion technology. This allows better reliability, larger bandwidth, and increased coverage compared to using only one satellite link.

Below is a list of supported features on Peplink routers. Features vary by model. For more information, please see [peplink.com/products](https://www.peplink.com/products).

## 1.1 Supported Network Features

### 1.1.1 WAN

- Ethernet WAN connection in full/half duplex
- Static IP support for PPPoE
- USB mobile connection(s)
- Wi-Fi WAN connection
- Network address translation (NAT)/port address translation (PAT)
- Inbound and outbound NAT mapping
- IPsec NAT-T and PPTP packet passthrough
- MAC address clone and passthrough
- Customizable MTU and MSS values
- WAN connection health check
- Dynamic DNS (supported service providers: [changeip.com](https://changeip.com), [dyndns.org](https://dyndns.org), [no-ip.org](https://no-ip.org), [tzo.com](https://tzo.com) and [DNS-O-Matic](https://DNS-O-Matic.com))
- Ping, DNS lookup, and HTTP-based health check

### 1.1.2 LAN

- Wi-Fi AP
- Ethernet LAN ports
- DHCP server on LAN
- Extended DHCP option support
- Static routing rules
- VLAN on LAN support

### **1.1.3 VPN**

- SpeedFusion VPN with SpeedFusion™
- SpeedFusion VPN performance analyzer
- X.509 certificate support
- VPN load balancing and failover among selected WAN connections
- Bandwidth bonding and failover among selected WAN connections
- IPsec VPN for network-to-network connections (works with Cisco and Juniper)
- Ability to route Internet traffic to a remote VPN peer
- Optional pre-shared key setting
- SpeedFusion™ throughput, ping, and traceroute tests
- PPTP server
- PPTP and IPsec passthrough

### **1.1.4 Firewall**

- Outbound (LAN to WAN) firewall rules
- Inbound (WAN to LAN) firewall rules per WAN connection
- Intrusion detection and prevention
- Specification of NAT mappings
- Outbound firewall rules can be defined by destination domain name

### **1.1.5 Captive Portal**

- Splash screen of open networks, login page for secure networks
- Customizable built-in captive portal
- Supports linking to outside page for captive portal

### **1.1.6 Outbound Policy**

- Link load distribution per TCP/UDP service
- Persistent routing for specified source and/or destination IP addresses per TCP/UDP service
- Traffic prioritization and DSL optimization
- Prioritize and route traffic to VPN tunnels with Priority and Enforced algorithms

### **1.1.7 AP Controller**

- Configure and manage Peplink AP devices
- Review the status of connected APs

### **1.1.8 QoS**

- Quality of service for different applications and custom protocols
- User group classification for different service levels
- Bandwidth usage control and monitoring on group- and user-level
- Application prioritization for custom protocols and DSL/cable optimization

## 1.2 Other Supported Features

- User-friendly web-based administration interface
- HTTP and HTTPS support for web admin interface (default redirection to HTTPS)
- Configurable web administration port and administrator password
- Firmware upgrades, configuration backups, ping, and traceroute via web admin interface
- Remote web-based configuration (via WAN and LAN interfaces)
- Time server synchronization
- SNMP
- Email notification
- Read-only user access for web admin
- Shared IP drop-in mode
- Authentication and accounting by RADIUS server for web admin
- Built-in WINS servers\*
- Syslog
- SIP passthrough
- PPTP packet passthrough
- Event log
- Active sessions
- Client list
- WINS client list \*
- UPnP / NAT-PMP
- Real-time, hourly, daily, and monthly bandwidth usage reports and charts
- IPv6 support
- Support USB tethering on Android 2.2+ phones

\* Not supported on MAX Surf-On-The-Go, and BR1 variants

## 2 Multi-Orbit Series Router Overview

### 2.1 MAX Orbit 2

#### 2.1.1 Panel Appearance



#### 2.1.2 LED Indicators

The statuses indicated by the front panel LEDs are as follows:

| Status Indicators |              |                     |
|-------------------|--------------|---------------------|
| Status            | OFF          | System initializing |
|                   | Red          | Booting up or busy  |
|                   | Blinking red | Boot up error       |
|                   | Green        | Ready               |

| Cellular Indicators |                 |                                                      |
|---------------------|-----------------|------------------------------------------------------|
| Orbit               | OFF             | No Starlink connected                                |
|                     | Blinking Slowly | One or more Starlink dish not detected or obstructed |
|                     | Green           | All connected Orbit port detected Starlink dish      |

| Wi-Fi Indicators |     |                                  |
|------------------|-----|----------------------------------|
| Wi-Fi / Wi-Fi AP | OFF | Disabled intermittent            |
|                  | ON  | Connected to wireless network(s) |

| LAN Ports        |                      |                                                       |
|------------------|----------------------|-------------------------------------------------------|
| <b>Right LED</b> | Green                | 1000 Mbps                                             |
|                  | OFF                  | 10 Mbps / 100 Mbps or port is not connected           |
|                  | ON                   | Port is connected without traffic                     |
| <b>Left LED</b>  | Blinking             | Data is transferring                                  |
|                  | OFF                  | No data is being transferred or port is not connected |
| <b>Port Type</b> | Auto MDI/MDI-X ports |                                                       |

| Orbit Port       |                      |                                                       |
|------------------|----------------------|-------------------------------------------------------|
| <b>Right LED</b> | Green                | 1000 Mbps                                             |
|                  | OFF                  | 10 Mbps / 100 Mbps or port is not connected           |
|                  | ON                   | Port is connected without traffic                     |
| <b>Left LED</b>  | Blinking             | Data is transferring                                  |
|                  | OFF                  | No data is being transferred or port is not connected |
| <b>Port Type</b> | Auto MDI/MDI-X ports |                                                       |

| 2.5GE Orbit Port |                      |                                                       |
|------------------|----------------------|-------------------------------------------------------|
| <b>Right LED</b> | Green                | 2.5 Gbps                                              |
|                  | Orange               | 1000 Mbps                                             |
|                  | OFF                  | 10 Mbps / 100 Mbps or port is not connected           |
|                  | ON                   | Port is connected without traffic                     |
| <b>Left LED</b>  | Blinking             | Data is transferring                                  |
|                  | OFF                  | No data is being transferred or port is not connected |
| <b>Port Type</b> | Auto MDI/MDI-X ports |                                                       |

## 2.2 MAX Orbit 4

### 2.2.1 Panel Appearance



### 2.2.2 LED Indicators

| Status Indicators |              |                     |
|-------------------|--------------|---------------------|
| Status            | OFF          | System initializing |
|                   | Red          | Booting up or busy  |
|                   | Blinking red | Boot up error       |
|                   | Green        | Ready               |

| Orbit Indicators |                 |                                                      |
|------------------|-----------------|------------------------------------------------------|
| Orbit            | OFF             | No Starlink connected                                |
|                  | Blinking Slowly | One or more Starlink dish not detected or obstructed |
|                  | Green           | All connected Orbit port detected Starlink dish      |

| Wi-Fi Indicators |     |                                  |
|------------------|-----|----------------------------------|
| Wi-Fi / Wi-Fi AP | OFF | Disabled intermittent            |
|                  | ON  | Connected to wireless network(s) |

| WAN / LAN Ports |                      |                                                       |
|-----------------|----------------------|-------------------------------------------------------|
| Right LED       | Green                | 2.5 Gbps                                              |
|                 | Orange               | 1000 Mbps                                             |
|                 | OFF                  | 10 Mbps / 100 Mbps or port is not connected           |
| Left LED        | ON                   | Port is connected without traffic                     |
|                 | Blinking             | Data is transferring                                  |
|                 | OFF                  | No data is being transferred or port is not connected |
| Port Type       | Auto MDI/MDI-X ports |                                                       |

| Orbit Port |                      |                                                       |
|------------|----------------------|-------------------------------------------------------|
| Right LED  | Green                | 1000 Mbps                                             |
|            | OFF                  | 10 Mbps / 100 Mbps or port is not connected           |
|            | ON                   | Port is connected without traffic                     |
| Left LED   | Blinking             | Data is transferring                                  |
|            | OFF                  | No data is being transferred or port is not connected |
| Port Type  | Auto MDI/MDI-X ports |                                                       |

## 2.3 MAX Orbit 8

### 2.3.1 Panel Appearance



### 2.3.2 LED Behaviour

| Power and Status Indicators |                              |
|-----------------------------|------------------------------|
| Status                      | OFF – Upgrading firmware     |
|                             | Red – Booting up or busy     |
|                             | Blinking red – Boot up error |
|                             | Green – Ready                |

| Orbit Indicators |                 |                                                      |
|------------------|-----------------|------------------------------------------------------|
| Orbit            | OFF             | No Starlink connected                                |
|                  | Blinking Slowly | One or more Starlink dish not detected or obstructed |
|                  | Green           | All connected Orbit port detected Starlink dish      |

| WAN / LAN Port (10GBASE-T) |        |                       |
|----------------------------|--------|-----------------------|
| Right                      | Green  | 10 Gbps               |
|                            | Orange | 1000 Mbps / 2500 Mbps |
|                            | OFF    | 100 Mbps              |

|                          |          |                                   |
|--------------------------|----------|-----------------------------------|
| <b>Left</b>              | OFF      | Port is not connected             |
|                          | Blinking | Data is transferring              |
|                          | ON       | Port is connected without traffic |
| <b>2.5GE Orbit Ports</b> |          |                                   |
| <b>Green LED</b>         | ON       | PoE+ Ready                        |
|                          | OFF      | PoE Off                           |
| <b>Orange LED</b>        | OFF      | Port is not connected             |
|                          | Blinking | Data is transferring              |
|                          | ON       | Port is connected without traffic |
| <b>Port Type</b>         |          | Auto MDI/MDI-X ports              |
| <b>SFP+ Ports</b>        |          |                                   |
| <b>Green LED</b>         | OFF      | Port is not connected             |
|                          | Blinking | Data is transferring              |
|                          | ON       | Port is connected without traffic |

|                      |                              |
|----------------------|------------------------------|
| <b>Console Ports</b> |                              |
| <b>Console Port</b>  | Reserved for engineering use |

## 3 Advanced Feature Summary

### 3.1 Drop-in Mode and LAN Bypass: Transparent Deployment



As your organization grows, it may require more bandwidth, but modifying your network can be tedious. In **Drop-in Mode**, you can conveniently install your Peplink router without making any changes to your network. For any reason your Peplink router loses power, the **LAN Bypass** will safely and automatically bypass the Peplink router to resume your original network connection.

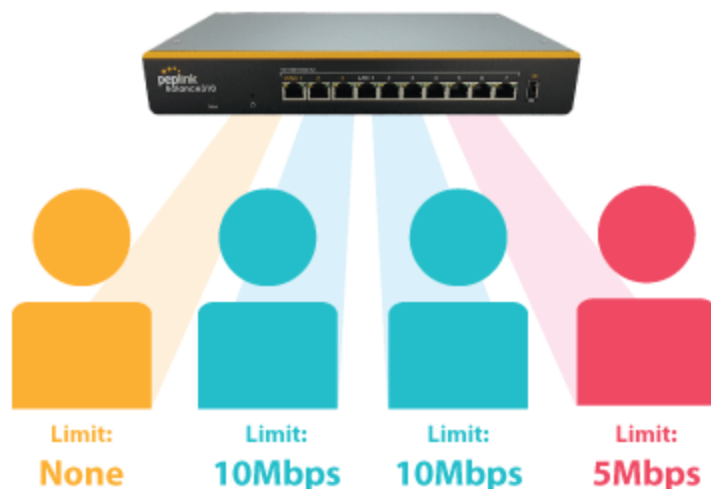
*Note: Drop-in mode is compatible for All MAX models except MAX BR1 IP67*

### 3.2 QoS: Clearer VoIP



VoIP and videoconferencing are highly sensitive to latency. With QoS, Peplink routers can detect VoIP traffic and assign it the highest priority, giving you crystal-clear calls.

### 3.3 Per-User Bandwidth Control



With per-user bandwidth control, you can define bandwidth control policies for up to 3 groups of users to prevent network congestion. Define groups by IP address and subnet, and set bandwidth limits for every user in the group.

### 3.4 High Availability via VRRP



When your organization has a corporate requirement demanding the highest availability with no single point of failure, you can deploy two Peplink routers in **High Availability mode**. With High Availability mode, the second device will take over when needed.

*Compatible with: MAX Orbit 2, MAX Orbit 4, MAX Orbit 8*

### 3.5 USB Modem and Android Tethering



For increased WAN diversity, plug in a USB LTE modem as a backup. Peplink routers are compatible with over [200 modem types](#). You can also tether to smartphones running Android 4.1.X and above.

*Compatible with: MAX Orbit 4, MAX Orbit 8*

### 3.6 Built-In Remote User VPN Support



Use OpenVPN or L2TP with IPsec to safely and conveniently connect remote clients to your private network. L2TP with IPsec is supported by most devices, but legacy devices can also connect using PPTP.

[Click here for the full instructions on setting up L2TP with IPsec.](#)

[Click here for the full instructions on setting up OpenVPN connections](#)

### 3.7 DPI Engine

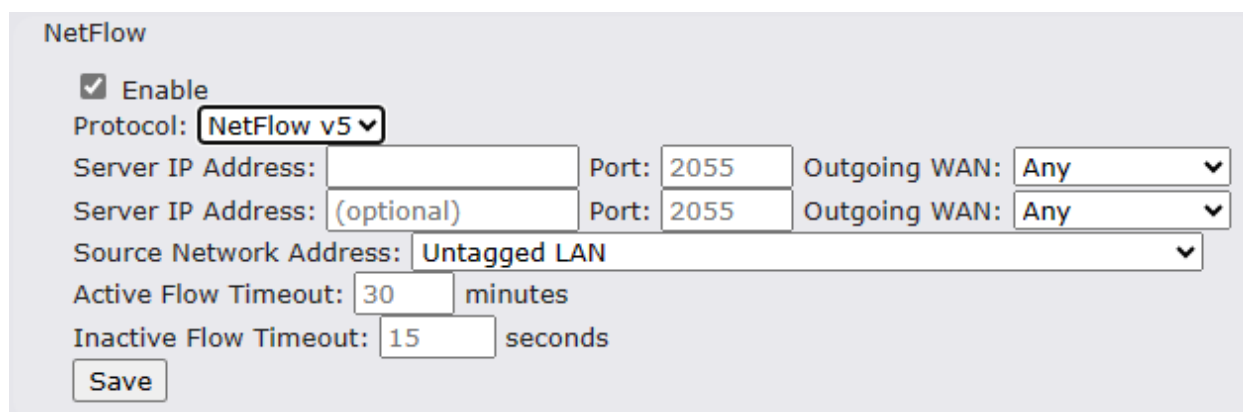
The DPI report written in the updated KB article will show further information on InControl2 through breaking down application categories into subcategories.

<https://forum.peplink.com/t/ic2-deep-packet-inspection-dpi-reports-and-everything-you-need-to-know-about-it/10151/>

## 3.8 NetFlow

NetFlow protocol is used to track network traffic. Tracking information from NetFlow can be sent to the NetFlow collector, which analyzes data and generates reports for review.

*Note: To enable this feature, go to <https://<Device's IP>/cgi-bin/MANGA/support.cgi>*



**NetFlow**

☒ Enable

Protocol: **NetFlow v5** ▼

Server IP Address:  Port:  Outgoing WAN: **Any** ▼

Server IP Address: (optional)  Port:  Outgoing WAN: **Any** ▼

Source Network Address: **Untagged LAN** ▼

Active Flow Timeout:  minutes

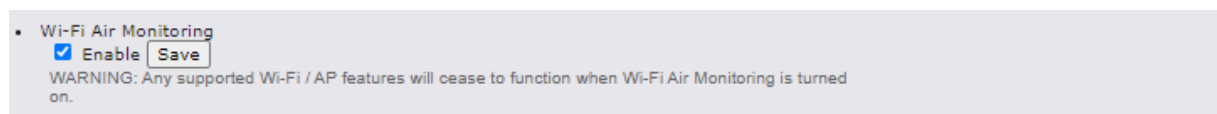
Inactive Flow Timeout:  seconds

**Save**

## 3.9 Wi-Fi Air Monitoring

Peplink routers support Wi-Fi “Air Monitoring Mode” which is used to troubleshoot remotely and proactively monitor Wi-Fi and WAN performance. The report can be viewed under InControl 2 > Reports > AirProbe Reports after enabling Wi-Fi Air Monitoring.

*Note: To enable this feature, go to <https://<Device's IP>/cgi-bin/MANGA/support.cgi>*



• **Wi-Fi Air Monitoring**

☒ Enable **Save**

WARNING: Any supported Wi-Fi / AP features will cease to function when Wi-Fi Air Monitoring is turned on.

## 3.10 SP Default Configuration

The SP Default Configuration feature written in the updated KB article allows for the provisioning of custom made settings (a.k.a. InControl2 configuration) via the Ethernet LAN port and is ideal for those wanting to do a bulk deployment of many Peplink devices.

*Note: If you would like to use this feature, please contact your purchase point (Eg. VAD).*

### 3.11 Peplink Relay

Cloud Service Providers often restrict access to certain applications. With SFC Relay, you can route traffic before going out to the Internet, allowing access to previously restricted applications experienced with the public SpeedFusion Cloud nodes. Available as an add-on for your enterprise branch router or as an upgradable license to your Peplink router, SFC Relay is sure to impress you and any peers you give access to.

<https://youtu.be/99XcwIDH-TA?si=BC2uo3vUKMgBzmD3>

### 3.12 DNS over HTTPS (DoH)

DoH provides the benefits of communicating DNS information over a secure HTTPS connection in an encrypted manner. The protocol offers increased privacy and confidentiality by preventing data interception and man-in-the-middle attacks.

### 3.13 Peplink InTouch

InTouch is Peplink's zero-touch remote network management solution, leveraging InControl 2 and a SpeedFusion Connect (formerly known as SpeedFusion Cloud) data plan. This service extends a network administrator's ability to reach any device UI backed by a Peplink/Peplink router. To configure InTouch, all you need is a valid InControl 2 subscription, a SpeedFusion Connect data plan, and a Peplink/Peplink router (which requires the latest 8.2.0 firmware).

To watch a demonstration and read the FAQ, visit

<https://www.peplink.com/enterprise-solutions/intouch/>

Or learn to configure InTouch at <https://youtu.be/zq0iavHGkJw>

### 3.14 Synergy Mode

Synergy mode is a cascade multiple devices and combine the number of WANs to a single device virtually. All the WANs on the Synergized Device will appear as native WAN interfaces at the Synergy Controller and it can be managed like the built-in WAN interfaces.

[https://forum.peplink.com/t/synergy-mode-\(firmware-8.3.0\)/639be7d8af8c71a6f3050323/](https://forum.peplink.com/t/synergy-mode-(firmware-8.3.0)/639be7d8af8c71a6f3050323/)

### 3.15 Virtual WAN on VLAN

The Virtual WAN Activation License allows you to create 1 x virtual WAN on a particular VLAN, on either WAN or LAN interface. This means that you can create a virtual WAN on VLAN for a WAN port, or a virtual WAN on VLAN for a LAN port.

<https://forum.peplink.com/t/b20x-virtual-wan-activation-license-faq/6204bac7d90b9e6355e96e8d/1>

## 4 Installation

The following section details connecting Peplink routers to your network.

### 4.1 Preparation

Before installing your Peplink router, please prepare the following as appropriate for your installation:

- At least one Internet/WAN access account and/or Wi-Fi access information
- Depending on network connection type(s), one or more of the following:
  - **Ethernet WAN:** A 10/100/1000BaseT UTP cable with RJ45 connector
  - **USB:** A USB modem
  - **Wi-Fi WAN:** Wi-Fi antennas
- A computer installed with the TCP/IP network protocol and a supported web browser. Supported browsers include Microsoft Internet Explorer 11 or above, Mozilla Firefox 24 or above, Apple Safari 7 or above, and Google Chrome 18 or above.

### 4.2 Constructing the Network

At a high level, construct the network according to the following steps:

1. With an Ethernet cable, connect a computer to one of the LAN ports on the Peplink router. Repeat with different cables for up to 4 computers to be connected.
2. Connect either another Ethernet cable or a USB modem to one of the WAN ports or USB ports respectively, or connect to Wi-Fi as WAN on the Peplink router. Repeat the same process for any additional WAN ports.
3. Connect the power adapter to the power connector on the rear panel of the Peplink router, and then plug it into a power outlet.

## 4.3 Configuring the Network Environment

To ensure that the Peplink router works properly in the LAN environment and can access the Internet via WAN connections, please refer to the following setup procedures:

- LAN configuration

For basic configuration, refer to **Section 8, Connecting to the Web Admin Interface**.

For advanced configuration, go to **Section 9, Configuring the LAN Interface(s)**.

- WAN configuration

For basic configuration, refer to **Section 8, Connecting to the Web Admin Interface**.

For advanced configuration, go to **Section 9.2, Captive Portal**.

## 5 Connecting to the Web Admin Interface

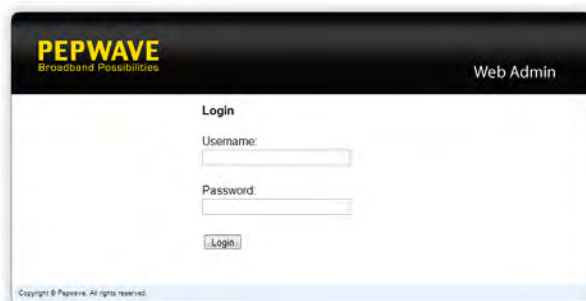
1. Start a web browser on a computer that is connected with the Peplink router through the LAN.
2. To connect to the router's web admin interface, enter the following LAN IP address in the address field of the web browser:  
http://192.168.50.1  
(This is the default LAN IP address for Peplink routers.)

3. Enter the following to access the web admin interface.

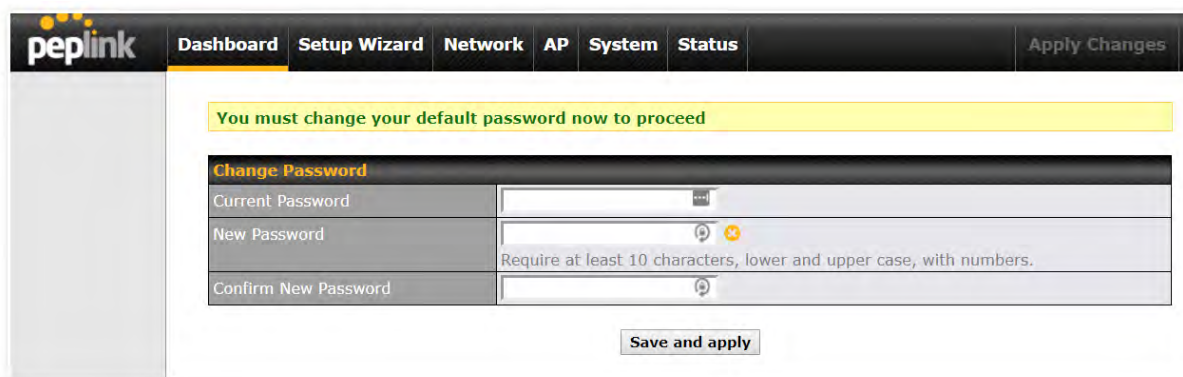
**Username:** admin

**Password:** admin

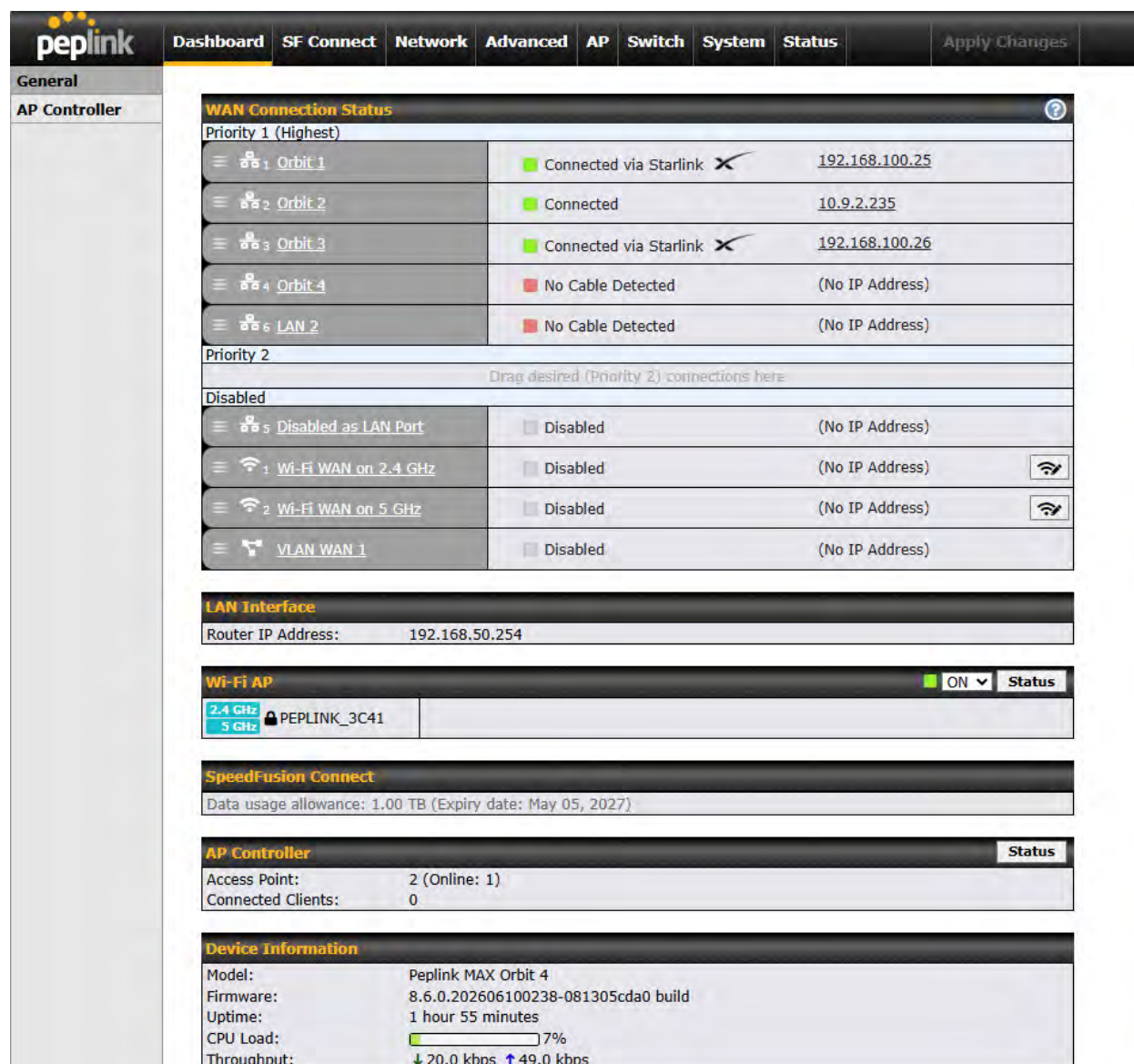
(This is the default username and password for Peplink routers).



- You must change the default password on the first successful login.
- Password requirements are: A minimum of 10 lower AND upper case characters, including at least 1 number.
- When HTTP is selected, the URL will be redirected to HTTPS by default.



After successful login, the **Dashboard** of the web admin interface will be displayed.



**peplink** Dashboard SF Connect Network Advanced AP Switch System Status Apply Changes

**General**  
AP Controller

**WAN Connection Status** ?

Priority 1 (Highest)

|         |                        |                 |
|---------|------------------------|-----------------|
| Orbit 1 | Connected via Starlink | 192.168.100.25  |
| Orbit 2 | Connected              | 10.9.2.235      |
| Orbit 3 | Connected via Starlink | 192.168.100.26  |
| Orbit 4 | No Cable Detected      | (No IP Address) |
| LAN 2   | No Cable Detected      | (No IP Address) |

Priority 2

Drag desired (Priority 2) connections here

Disabled

|                      |          |                 |
|----------------------|----------|-----------------|
| Disabled as LAN Port | Disabled | (No IP Address) |
| Wi-Fi WAN on 2.4 GHz | Disabled | (No IP Address) |
| Wi-Fi WAN on 5 GHz   | Disabled | (No IP Address) |
| VLAN WAN 1           | Disabled | (No IP Address) |

**LAN Interface**

Router IP Address: 192.168.50.254

**Wi-Fi AP** ON Status

2.4 GHz 5 GHz PEPLINK\_3C41

**SpeedFusion Connect**

Data usage allowance: 1.00 TB (Expiry date: May 05, 2027)

**AP Controller** Status

Access Point: 2 (Online: 1)  
Connected Clients: 0

**Device Information**

Model: Peplink MAX Orbit 4  
Firmware: 8.6.0.202606100238-081305cda0 build  
Uptime: 1 hour 55 minutes  
CPU Load: 7%  
Throughput: ↓ 20.0 kbps ↑ 49.0 kbps

The **Dashboard** shows current Orbit, WAN, LAN, and Wi-Fi AP statuses. Here, you can change WAN connection priority and switch on/off the Wi-Fi AP. For further information on setting up these connections, please refer to **Sections 8** and **9**.

**Device Information** displays details about the device, including model name, firmware version, and uptime. For further information, please refer to **Section 22**.

### Important Note

Configuration changes (e.g. WAN, LAN, admin settings, etc.) will take effect only after clicking the **Save** button at the bottom of each page. The **Apply Changes** button causes the changes to be saved and applied.

## 6 SpeedFusion Connect

With Peplink products, your device is able to connect to SpeedFusion Connect without the use of a second endpoint. This service has wide access to a number of SpeedFusion endpoints hosted from around the world, providing your device with unbreakable connectivity wherever you are.\*



\*SpeedFusion Connect is supported in firmware version 8.1.0 and above. SpeedFusion Connect is a subscription basis. SpeedFusion Connect license can be purchased at <https://estore.peplink.com/> > **SpeedFusion Service** > **SpeedFusion Connect**.

### 6.1 Activate SpeedFusion Connect Service

All Care plans now come with SpeedFusion Connect included. This data allowance will automatically begin and end in accordance with your warranty. No activation is required.

## 6.2 Enable SpeedFusion Connect

Access the Web Admin of the device you want to create as the Peplink Relay Server, navigating to the “**SFC Protect**” tab.

### SpeedFusion Connect

Aggregate your bandwidth, connect you to different geo-location, and more.



**Client Mode - for Outbound accesses**  
Choose SFC Location to connect.

#### Outbound Traffic Steering Priority



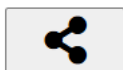
**Route by Wi-Fi SSID**  
Send traffic via SFC locations by Wi-Fi SSID.



**Route by LAN Client**  
Send traffic via SFC locations by LAN Clients' MAC Address.



**Route by Cloud Application**  
Send traffic for Google, Microsoft, Zoom, and other cloud services via SFC locations.



**Relay Mode - for Inbound accesses**

To setup a Peplink Relay Mode, select “**Relay Mode – for Inbound accesses**” > Choose the **SFC Protect Location** you wish to connect to > Click on the **Green tick button** to confirm the change.

User may also get the suggestions cloud location based on latency by click “[here](#)”.

### SFC > Setup Relay Mode

Allow remote peers to access local networks, and the internet via this device.

| SpeedFusion Connect Relay | SFC Location    |                                                                                       |
|---------------------------|-----------------|---------------------------------------------------------------------------------------|
|                           | Singapore (SIN) |  |

To get suggestions for the cloud location based on your latency, click [here](#).

The Protect private networks option blocks traffic from Relay Clients to private IP address ranges, including:

- 10.0.0.0/8
- 100.64.0.0/10
- 172.16.0.0/12
- 192.168.0.0/16
- 169.254.0.0/16

Enabling this option prevents access to these private networks from Relay Clients to protect your private networks and devices. This can improve the security of your local network against unwanted traffic from Relay Clients.

| Access Control Settings |                               |
|-------------------------|-------------------------------|
| Network Access          | <span>?</span> All networks ▼ |
| Device Access           | Allow all remote devices ▼    |
| Save                    |                               |

To block other devices from connecting, select “Block all except the allowed list” and add allowed devices serial number under the list.

| Access Control Settings |                                     |                      |                                                        |
|-------------------------|-------------------------------------|----------------------|--------------------------------------------------------|
| Network Access          | <span>?</span> All networks ▼       |                      |                                                        |
| Device Access           | Block all except the allowed list ▼ |                      |                                                        |
| Allowed Device          | Serial Number                       | Note                 |                                                        |
|                         | <input type="text"/>                | <input type="text"/> | <input style="float: right;" type="button" value="+"/> |
| Save                    |                                     |                      |                                                        |

The Relay Sharing Code will be generated, and other peers can use this code to establish a SpeedFusion Connect Protect that will forward the traffics to this device, allowing them to access local networks and the internet via your WAN connection.

## SFC > Setup Relay Mode

Allow remote peers to access local networks, and the internet via this device.

| SpeedFusion Connect Relay            | SFC Location                                   | <span>?</span>                                        |
|--------------------------------------|------------------------------------------------|-------------------------------------------------------|
| <a href="#">SFC-RELAY-SERVER-SIN</a> | Relay Sharing Code: <b>2660-6980-9477-5614</b> | <span style="color: red; font-weight: bold;">X</span> |

To connect to SpeedFusion Connect Protect, you can select a **SFC Protect Location** of your choice, or simply and **Automatic** then the device will establish connection to the nearest SFC Protect server.

Choose **Automatic** > Click on the green tick button to confirm the change.

## SFC > Choose SFC Location

You can connect up to 3 different sfc locations.

| SpeedFusion Connect | SFC Location |                                     |
|---------------------|--------------|-------------------------------------|
|                     | Automatic    | <input checked="" type="checkbox"/> |

To get suggestions for the cloud location based on your latency, click [here](#).

Or you may select **Relay Sharing** and use your **Relay Sharing Code** to create a profile if you have set up a Peplink Relay Client on another device.

## SFC > Choose SFC Location

You can connect up to 3 different sfc locations.

| SpeedFusion Connect | SFC Location                                |                                     |
|---------------------|---------------------------------------------|-------------------------------------|
|                     | [Relay Sharing]<br>e.g. 1234-5678-1234-5678 | <input checked="" type="checkbox"/> |

To get suggestions for the cloud location based on your latency, click [here](#).

Click on **Apply Changes** to save the change.

| Dashboard | SF Connect | Network | Advanced | AP | Switch | System | Status |  | Apply Changes |
|-----------|------------|---------|----------|----|--------|--------|--------|--|---------------|
|           |            |         |          |    |        |        |        |  |               |

Saved! Changes will be effective after clicking the 'Apply Changes' button.

## SFC > Choose SFC Location

| SpeedFusion Connect | SFC Location |                                     |
|---------------------|--------------|-------------------------------------|
| SFC                 | Automatic    | <input checked="" type="checkbox"/> |
|                     | ---          | <input type="checkbox"/>            |

To get suggestions for the cloud location based on your latency, click [here](#).

By default, the router will build a SpeedFusion tunnel to the SpeedFusion Connect Protect.

| Wi-Fi AP                          |             | ON | Status |
|-----------------------------------|-------------|----|--------|
| No Wi-Fi AP                       |             |    |        |
| SpeedFusion Connect Protect       |             |    |        |
| SFC                               | Established |    |        |
| Data usage allowance: 0.000000 MB |             |    |        |

If you are running a latency sensitive service like video streaming or VOIP, a WAN Smoothing sub-tunnel can be created. Navigate to **SFC Protect > Client Mode – for Outbound accesses > SFC**.

## SFC > Choose SFC Location

| SpeedFusion Connect | SFC Location |  |
|---------------------|--------------|--|
| SFC                 | Automatic    |  |
|                     | ---          |  |

To get suggestions for the cloud location based on your latency, click [here](#).

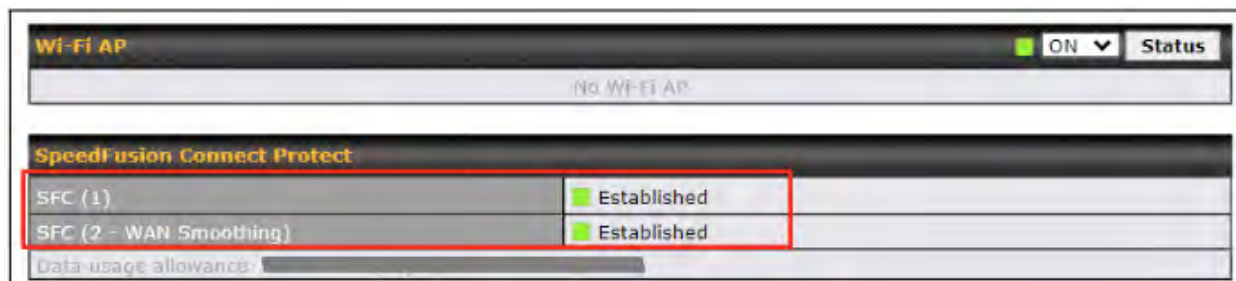
A SpeedFusion Connect Protect Profile configuration window will pop out. Click on the **+** sign to create the WAN Smoothing sub-tunnel.

| SpeedFusion Connect Protect Profile |                                     |
|-------------------------------------|-------------------------------------|
| Enable                              | <input checked="" type="checkbox"/> |
| SFC Protect Location                | Automatic                           |

| 1                        |               | 2 - WAN Smoo...                                                           |        | <b>+</b> |  |
|--------------------------|---------------|---------------------------------------------------------------------------|--------|----------|--|
| Tunnel Options           |               |                                                                           |        |          |  |
| Local / Remote Tunnel ID | 2             |                                                                           |        |          |  |
| Tunnel Name              | WAN Smoothing |                                                                           |        |          |  |
| Data Port                |               | <input checked="" type="radio"/> Auto <input type="radio"/> Custom        |        |          |  |
| Bandwidth Limit          |               | <input type="checkbox"/>                                                  |        |          |  |
| TCP Ramp Up              |               | <input type="checkbox"/>                                                  |        |          |  |
| WAN Smoothing            |               | Overall Redundancy Level                                                  | Normal |          |  |
|                          |               | Maximum Level on the Same Link                                            | Normal |          |  |
| Forward Error Correction |               | Off                                                                       |        |          |  |
| Receive Buffer           |               | 0 ms                                                                      |        |          |  |
| Packet Fragmentation     |               | <input checked="" type="radio"/> Always <input type="radio"/> Use DF Flag |        |          |  |

Click on **Save** and **Apply Changes** to save the configuration. Now, the router has 2 Speedfusion tunnels to the SpeedFusion Connect Protect.



Data usage allowance is able to check from the below SpeedFusion Connect from Dashboard.

## Status

Data usage allowance: [remaining data] (Expiry date: 2025)      Remaining SFC data usage occurs.

Fair usage policy (Expiry date: 2025)      Device with active care plan but exceeded SFC data usage. This mode will reduce the throughput to 10 Mbps

Create an outbound policy to steer the internet traffic to go into SFC Protect. Please go to **Advanced > Outbound Policy**, click on **Add Rule** to create a new outbound policy.

**PEPWAVE**
Dashboard
SFC Protect
Network
Advanced
AP
System
Status
Apply Changes

**Advanced**

- SpeedFusion VPN
- IPsec VPN
- GRE Tunnel
- OpenVPN
- Outbound Policy**
- Port Forwarding

**NAT Mappings**

**QoS**

- User Groups
- Bandwidth Control
- Application Queue
- Application

**Firewall**

- Access Rules
- Content Blocking

**Routing Protocols**

- OSPF & RIPv2
- BGP

**Remote User Access**

**Add a New Custom Rule**

Service Name

Enable

☒

Source

Any

Destination

IP Network

Mask: 255.255.255.0 (/24)

Protocol

Any

← :: Protocol Selection ::

Algorithm

Priority

Priority Order

Highest Priority
SFC Protect: SFC
WAN: WAN
WAN: Cellular
WAN: Wi-Fi WAN on 2.4 GHz
WAN: Wi-Fi WAN on 5 GHz
Lowest Priority

Not In Use

When No Connections are Available

Drop the Traffic

Terminate Sessions on Connection Recovery

☐ Enable

Save

Cancel

**Outbound Policy**

Custom

**Rules**

Drag and drop rows by the left to change rule order

| Service                            | Algorithm                     | Source                   | Destination | Protocol / Port |   |
|------------------------------------|-------------------------------|--------------------------|-------------|-----------------|---|
| PepVPN / OSPF / BGP / RIPv2 Routes |                               |                          |             |                 |   |
| SpeedFusion Cloud Routes           |                               |                          |             |                 |   |
| to Internet                        | Priority VPN: SFC (1 - Def... | IP Address 192.168.50.10 | Any         | Any             | ✖ |
| HTTPS Persistence                  | Persistence (Src) (Auto)      | Any                      | Any         | TCP 443         | ✖ |
| Default                            | (Auto)                        |                          |             |                 |   |
| Add Rule                           |                               |                          |             |                 |   |

**Expert Mode**

Enabled

## 6.3 Route by Cloud Application

Optimize Cloud Application allows you to route Internet traffic through SpeedFusion Connect Protect based on the application. Go to **SFC Protect > Route by Cloud Application**.

### SpeedFusion Connect

Aggregate your bandwidth, connect you to different geo-location, and more.



**Client Mode - for Outbound accesses**  
Choose SFC Location to connect.

#### Outbound Traffic Steering Priority



**Route by Cloud Application**  
Send traffic for Google, Microsoft, Zoom, and other cloud services via SFC locations.

Select a Cloud application to route through SpeedFusion Connect Protect from the drop down list

> Click > Save > Apply Changes.

Click the to remove a selected Cloud application from routing through SpeedFusion Connect Protect.

### SFC > Optimize Cloud Application

Traffic of the selected cloud application will be redirected to the assigned SFC.

**Automatic**

SFC

Cloud Application

---

+

- 
- Google Workspace
- Google Meet
- Zoom
- Zoom for Government
- Lifesize
- Salesforce
- WebEx
- Dropbox
- Zscaler
- FaceTime
- Microsoft Services
- Microsoft Office 365
- Exchange Online
- SharePoint and OneDrive
- Microsoft Teams
- Microsoft Services for Government
- Microsoft Office 365 for Government
- Exchange Online for Government
- SharePoint and OneDrive for Government

## 6.4 Route by Wi-Fi SSID

SpeedFusion Connect Protect provides a convenient way to route the Wi-Fi client to the cloud from **SFC Protect > Route by Wi-Fi SSID**.

### SpeedFusion Connect

Aggregate your bandwidth, connect you to different geo-location, and more.



**Client Mode - for Outbound accesses**  
Choose SFC Location to connect.

#### Outbound Traffic Steering Priority



**Route by Cloud Application**  
Send traffic for Google, Microsoft, Zoom, and other cloud services via SFC locations.



**Route by Wi-Fi SSID**  
Send traffic via SFC locations by Wi-Fi SSID.

Create a new SSID for SFC Protect. The new SSID will inherit all settings from one of the existing SSIDs including the Security Policy. Then click **Save** followed by **Apply Changes**.

### SFC > Link Wi-Fi to SFC

The new SSID will inherit all settings from the existing SSID including the Security Policy.

| Automatic |                |                           |                                                                                       |
|-----------|----------------|---------------------------|---------------------------------------------------------------------------------------|
| SFC       | Reference SSID | SSID for SFC              |                                                                                       |
|           | MBX-5GHz-SSID  | MBX-5GHz-SSID (Automatic) |  |
|           | ---            |                           |  |

Save

SFC Protect SSID will be shown on **Dashboard**.

| Wi-Fi AP |       | ON  | Status |
|----------|-------|------------------------------------------------------------------------------------------|--------|
| 2.4 GHz  | 5 GHz | 2.4 GHz                                                                                  | 5 GHz  |
|          |       | test-sfc                                                                                 |        |

| SpeedFusion Connect Protect |                                                                                                 |
|-----------------------------|-------------------------------------------------------------------------------------------------|
| SFC (1)                     |  Established |
| SFC (2 - WAN Smoothing)     |  Established |

## 6.5 Route by LAN Client

SpeedFusion Connect Protect provides a convenient way to route the LAN client to the cloud from **SFC Protect > Route by LAN Client**.

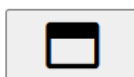
### SpeedFusion Connect

Aggregate your bandwidth, connect you to different geo-location, and more.



**Client Mode - for Outbound accesses**  
Choose SFC Location to connect.

#### Outbound Traffic Steering Priority



**Route by Cloud Application**  
Send traffic for Google, Microsoft, Zoom, and other cloud services via SFC locations.



**Route by Wi-Fi SSID**  
Send traffic via SFC locations by Wi-Fi SSID.



**Route by LAN Client**  
Send traffic via SFC locations by LAN Clients' MAC Address.

Choose a client from the drop down list > Click + > Save > Apply Changes.

### SFC > Connect Clients to SFC

Traffic from the selected clients will be redirected to the assigned SFC.

| Automatic |                      |               |   |
|-----------|----------------------|---------------|---|
| SFC       | Client               | IP Address    |   |
|           | LAPTOP- [redacted] ▼ | 192.168.52.75 | + |

Save

## 7 Configuring the LAN Interface(s)

### 7.1 Basic Settings

LAN interface settings are located at **Network > LAN > Network Settings**. Navigating to that page will show the following dashboard:

| LAN                                                                                            | VLAN | IP Address / Network |                                                                                     |
|------------------------------------------------------------------------------------------------|------|----------------------|-------------------------------------------------------------------------------------|
| Untagged LAN  | [1]  | 192.168.50.1/24      |                                                                                     |
| VLAN 123                                                                                       | 123  | 192.168.123.1/24     |  |
| New LAN                                                                                        |      |                      |                                                                                     |

This represents the LAN interfaces that are active on your router (including VLAN). A gray “X” means that the VLAN is used in other settings and cannot be deleted. You can find which settings are using the VLAN by hovering over the gray “X”.

Alternatively, a red “X” means that there are no settings using the VLAN. You can delete that VLAN by clicking the red “X”

Note: Default VLAN 1 is used for untagged LAN. Unused VLAN will be assigned if user has configured VLAN 1 for some other LAN network in previous firmware version.

Clicking on any of the existing LAN interfaces (or creating a new one) will show the following :

**IP Settings**

IP Address
255.255.255.0 (/24)

**IP Settings**

**IP Address** The IP address and subnet mask of the Peplink router on the LAN.

**Network Settings**

Name

VLAN ID

Inter-VLAN routing
☒

**Network Settings**

**Name** Enter a name for the LAN.

|                           |                                                        |
|---------------------------|--------------------------------------------------------|
| <b>VLAN ID</b>            | Enter a number for your VLAN                           |
| <b>Inter-VLAN routing</b> | Check this box to enable routing between virtual LANs. |

| Layer 2 SpeedFusion VPN Bridging          |                                                                                                                                           |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| SpeedFusion VPN Profiles to Bridge        | No profile is available                                                                                                                   |
| Spanning Tree Protocol                    | <input type="checkbox"/>                                                                                                                  |
| DHCP Option 82 Injection                  | <input checked="" type="checkbox"/>                                                                                                       |
| Override IP Address when bridge connected | <input checked="" type="radio"/> Do not override <input type="radio"/> Static <input type="radio"/> By DHCP <input type="radio"/> As None |

**Help** Close

If you want to enable DHCP Option 82 Injection, please click [here](#).

This allow the device to inject Option 82 with Device Name information before forwarding the DHCP Request packet to SpeedFusion VPN peer, such that the DHCP Server can identify where does this request come from.

| Layer 2 SpeedFusion VPN Bridging                 |                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SpeedFusion VPN Profiles to Bridge</b>        | The remote network of the selected SpeedFusion VPN profiles will be bridged with this local LAN, creating a Layer 2 SpeedFusion VPN, they will be connected and operate like a single LAN, and any broadcast or multicast packets will be sent over the VPN.                                                        |
| <b>Spanning Tree Protocol</b>                    | Click the box will enable STP for this layer 2 profile bridge.                                                                                                                                                                                                                                                      |
| <b>DHCP Option 82</b>                            | Click on the question Mark if you want to enable DHCP Option 82.<br>This allows the device to inject Option 82 with Router Name information before forwarding the DHCP Request packet to a SpeedFusion VPN peer, such that the DHCP Server can identify where the request originates from.                          |
| <b>Override IP Address when bridge connected</b> | <p>Select "Do not override" if the LAN IP address and local DHCP server should remain unchanged after the Layer 2 SpeedFusion VPN is up.</p> <p>If you choose to override the IP address when the VPN is connected, the device will not act as a router, and most Layer 3 routing functions will cease to work.</p> |

| DHCP Server                         |                                                                                   |                                                                                                                                                                                                                                 |                       |          |             |                         |  |                   |  |
|-------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------|-------------|-------------------------|--|-------------------|--|
| DHCP Server                         |  | <input checked="" type="checkbox"/> Enable                                                                                                                                                                                      |                       |          |             |                         |  |                   |  |
| DHCP Server Logging                 |                                                                                   | <input checked="" type="checkbox"/>                                                                                                                                                                                             |                       |          |             |                         |  |                   |  |
| IP Range                            |                                                                                   | 192.168.49.11 - 192.168.49.244                                                                                                                                                                                                  | 255.255.255.0 (/24) ▼ |          |             |                         |  |                   |  |
| Lease Time                          |                                                                                   | 1 Days 0 Hours 0 Mins                                                                                                                                                                                                           |                       |          |             |                         |  |                   |  |
| DNS Servers                         |                                                                                   | <input checked="" type="checkbox"/> Assign DNS server automatically                                                                                                                                                             |                       |          |             |                         |  |                   |  |
| WINS Servers                        |                                                                                   | <input type="checkbox"/> Assign WINS server                                                                                                                                                                                     |                       |          |             |                         |  |                   |  |
| BOOTP                               |                                                                                   | <input type="checkbox"/>                                                                                                                                                                                                        |                       |          |             |                         |  |                   |  |
| Extended DHCP Option                |                                                                                   | <table border="1"> <thead> <tr> <th>Option</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td colspan="2">No Extended DHCP Option</td> </tr> <tr> <td colspan="2" style="text-align: center;">Add</td> </tr> </tbody> </table> |                       | Option   | Value       | No Extended DHCP Option |  | Add               |  |
| Option                              | Value                                                                             |                                                                                                                                                                                                                                 |                       |          |             |                         |  |                   |  |
| No Extended DHCP Option             |                                                                                   |                                                                                                                                                                                                                                 |                       |          |             |                         |  |                   |  |
| Add                                 |                                                                                   |                                                                                                                                                                                                                                 |                       |          |             |                         |  |                   |  |
| DHCP Exclusion Range                |  | <table border="1"> <thead> <tr> <th>Start IP</th> <th>End IP</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>                                                                                       |                       | Start IP | End IP      |                         |  |                   |  |
| Start IP                            | End IP                                                                            |                                                                                                                                                                                                                                 |                       |          |             |                         |  |                   |  |
|                                     |                                                                                   |                                                                                                                                                                                                                                 |                       |          |             |                         |  |                   |  |
| DHCP Reservation                    |  | <table border="1"> <thead> <tr> <th>Name</th> <th>MAC Address</th> <th>Static IP</th> </tr> </thead> <tbody> <tr> <td></td> <td>00:00:00:00:00:00</td> <td></td> </tr> </tbody> </table>                                        |                       | Name     | MAC Address | Static IP               |  | 00:00:00:00:00:00 |  |
| Name                                | MAC Address                                                                       | Static IP                                                                                                                                                                                                                       |                       |          |             |                         |  |                   |  |
|                                     | 00:00:00:00:00:00                                                                 |                                                                                                                                                                                                                                 |                       |          |             |                         |  |                   |  |
| User Account IP Address Reservation |  | <table border="1"> <thead> <tr> <th>Username</th> <th>Static IP</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>                                                                                    |                       | Username | Static IP   |                         |  |                   |  |
| Username                            | Static IP                                                                         |                                                                                                                                                                                                                                 |                       |          |             |                         |  |                   |  |
|                                     |                                                                                   |                                                                                                                                                                                                                                 |                       |          |             |                         |  |                   |  |

| DHCP Server Settings       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DHCP Server</b>         | <p>When this setting is enabled, the Peplink router's DHCP server automatically assigns an IP address to each computer that is connected via LAN and configured to obtain an IP address via DHCP. The Peplink router's DHCP server can prevent IP address collisions on the LAN.</p> <p>To enable DHCP bridge relay, please click the  icon on this menu item.</p> |
| <b>DHCP Server Logging</b> | Enable logging of DHCP events in the eventlog by selecting the checkbox.                                                                                                                                                                                                                                                                                                                                                                               |
| <b>IP Range</b>            | These settings allocate a range of IP addresses that will be assigned to LAN computers by the Peplink router's DHCP server.                                                                                                                                                                                                                                                                                                                            |
| <b>Lease Time</b>          | This setting specifies the length of time throughout which an IP address of a DHCP client remains valid. Upon expiration of <b>Lease Time</b> , the assigned IP address will no longer be valid and the IP address assignment must be renewed.                                                                                                                                                                                                         |
| <b>DNS Servers</b>         | This option allows you to input the DNS server addresses to be offered to DHCP clients. If <b>Assign DNS server automatically</b> is selected, the Peplink router's built-in DNS server address (i.e., LAN IP address) will be offered.                                                                                                                                                                                                                |
| <b>BOOTP</b>               | Check this box to enable BOOTP on older networks that still require it.                                                                                                                                                                                                                                                                                                                                                                                |

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Extended DHCP Option</b>                | In addition to standard DHCP options (e.g. DNS server address, gateway address, subnet mask), you can specify the value of additional extended DHCP options, as defined in RFC 2132. With these extended options enabled, you can pass additional configuration information to LAN hosts. To define an extended DHCP option, click the <b>Add</b> button, choose the option to define, and then enter its value. For values that are in IP address list format, you can enter one IP address per line in the provided text area input control. Each option can be defined once only.                                                                                                                                                                                                                                                                                                                                        |
| <b>DHCP Reservation</b>                    | <p>This setting reserves the assignment of fixed IP addresses for a list of computers on the LAN. The computers to be assigned fixed IP addresses on the LAN are identified by their MAC addresses. The fixed IP address assignment is displayed as a cross-reference list between the computers' names, MAC addresses, and fixed IP addresses.</p> <p><b>Name</b> (an optional field) allows you to specify a name to represent the device. MAC addresses should be in the format of <b>00:AA:BB:CC:DD:EE</b>. Press  to create a new record. Press  to remove a record. Reserved clients information can be imported from the <b>Client List</b>, located at <b>Status&gt;Client List</b>. For more details, please refer to <b>Section 22.3</b>.</p> |
| <b>User Account IP Address Reservation</b> | This setting reserves the fixed IP addresses assignment for the list of Remote User Access accounts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

To configure DHCP relay, first click the  button found next to the **DHCP Server** option to display the settings.

| DHCP Relay Settings    |                                                                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DHCP Relay             |  <input checked="" type="checkbox"/> Enable                                                |
| DHCP Server IP Address |  <div> DHCP Server 1: <input type="text"/><br/> DHCP Server 2: <input type="text"/> </div> |
| DHCP Option 82         |  <input type="checkbox"/>                                                                  |
| DHCP Relay Logging     | <input type="checkbox"/>                                                                                                                                                      |

| DHCP Relay Settings           |                                                                                                                                                                                                                                                                                                                    |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Enable</b>                 | Check this box to turn on DHCP relay. Click the  icon to disable DHCP relay.                                                                                                                                                   |
| <b>DHCP Server IP Address</b> | Enter the IP addresses of one or two DHCP servers in the provided fields. The DHCP servers entered here will receive relayed DHCP requests from the LAN. For active-passive DHCP server configurations, enter active and passive DHCP server relay IP addresses in <b>DHCP Server 1</b> and <b>DHCP Server 2</b> . |
| <b>DHCP Option 82</b>         | DHCP Option 82 includes device information as relay agent for the attached client when forwarding DHCP requests from client to server. This option also embeds the device's MAC address and network name in circuit and remote IDs. Check this box to enable DHCP Option 82.                                       |

## DHCP Relay Logging

Enable logging of DHCP Relay events in the eventlog by selecting the checkbox.

Once DHCP is set up, configure **LAN Physical Settings**, **Static Route Settings**, and **DNS Proxy Settings** as noted above.

Static Route Settings

| Static Route | Destination Network | Subnet Mask           | Gateway |
|--------------|---------------------|-----------------------|---------|
|              |                     | 255.255.255.0 (/24) ▼ |         |

### Static Route Settings

This table is for defining static routing rules for the LAN segment. A static route consists of the network address, subnet mask, and gateway address. The address and subnet mask values are in w.x.y.z format.

**Static Route** The local LAN subnet and subnets behind the LAN will be advertised to the VPN. Remote routes sent over the VPN will also be accepted. Any VPN member will be able to route to the local subnets. Press to create a new route. Press to remove a route.

<sup>A</sup> - Advanced feature, please click the button on the top right hand corner of the Static Route section to activate and configure Virtual Network Mapping to resolve network address conflict with remote peers.

Virtual Network Mapping

|                 |  |               |                    |  |
|-----------------|--|---------------|--------------------|--|
| One-to-One NAT  |  | Local Network | Virtual Network    |  |
| Many-to-One NAT |  | Local Network | Virtual IP Address |  |

In case of a network address conflict with remote peers (i.e. SpeedFusion VPN / IPsec VPN / IP Forwarding WAN are considered as remote connections), you can define Virtual Network Mapping to resolve it.

**Note: OSPF & RIPv2 settings should be updated as well to avoid advertising conflicted networks.**

For further details on virtual network mapping watch this video:

<https://youtu.be/C1FMdZCn3Z8>

| Virtual Network Mapping |                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>One-to-One NAT</b>   | <p>Every IP Address in the Local Network has a corresponding unique Virtual IP Address for NAT.</p> <p>Traffic originating from the Local Network to remote connections will be SNAT'ed and behave like coming from the defined Virtual Network.</p> <p>While traffic initiated by remote peers to the Virtual Network will be DNAT'ed accordingly.</p> |
| <b>Many-to-One NAT</b>  | <p>The subnet range defined in Local Network will be mapped to a single Virtual IP Address for NAT. Traffic can only be initiated from local to remote, and these traffic will be NAT'ed and behaves like coming from the same Virtual IP Address.</p>                                                                                                  |

| DNS Proxy Settings                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|------------------------------|--------------|-----------------------------------|---|-----------------------------------------------|---|---------------------------------------------|--|------------------------------|--|---------------------------------------|--|
| Enable                                                                   | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
| DNS Caching                                                              | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
| Include Google Public DNS Servers                                        | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
| Local DNS Records                                                        | <table border="1"> <thead> <tr> <th>Host Name</th> <th>IP Address</th> <th>TTL</th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>3600</td> <td>+</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                           | Host Name | IP Address | TTL                          |              |                                   |   | 3600                                          | + |                                             |  |                              |  |                                       |  |
| Host Name                                                                | IP Address                                                                                                                                                                                                                                                                                                                                                                                                                                                               | TTL       |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
|                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3600      | +          |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
| Domain Lookup Policy                                                     | <table border="1"> <thead> <tr> <th>Domain</th> <th>Connection</th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>+</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                         | Domain    | Connection |                              |              |                                   | + |                                               |   |                                             |  |                              |  |                                       |  |
| Domain                                                                   | Connection                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
|                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | +         |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
| DNS Resolvers                                                            | <table border="1"> <tbody> <tr> <td><input type="checkbox"/> WAN</td> <td>192.168.52.1</td> </tr> <tr> <td><input type="checkbox"/> Cellular</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Wi-Fi WAN on 2.4 GHz</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Wi-Fi WAN on 5 GHz</td> <td></td> </tr> <tr> <td><input type="checkbox"/> SFC</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Untagged LAN</td> <td></td> </tr> </tbody> </table> |           |            | <input type="checkbox"/> WAN | 192.168.52.1 | <input type="checkbox"/> Cellular |   | <input type="checkbox"/> Wi-Fi WAN on 2.4 GHz |   | <input type="checkbox"/> Wi-Fi WAN on 5 GHz |  | <input type="checkbox"/> SFC |  | <input type="checkbox"/> Untagged LAN |  |
| <input type="checkbox"/> WAN                                             | 192.168.52.1                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
| <input type="checkbox"/> Cellular                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
| <input type="checkbox"/> Wi-Fi WAN on 2.4 GHz                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
| <input type="checkbox"/> Wi-Fi WAN on 5 GHz                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
| <input type="checkbox"/> SFC                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
| <input type="checkbox"/> Untagged LAN                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
| Preferred connections are shown with <input checked="" type="checkbox"/> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |
| Save                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |            |                              |              |                                   |   |                                               |   |                                             |  |                              |  |                                       |  |

| DNS Proxy Settings                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Enable</b>                            | To enable the DNS proxy feature, check this box, and then set up the feature at <b>Network &gt; LAN &gt; DNS Proxy Settings</b> . A DNS proxy server can be enabled to serve DNS requests originating from LAN/PPTP/SpeedFusion™ peers. Requests are forwarded to the <b>DNS servers/resolvers</b> defined for each WAN connection.                                                                                                                                                 |
| <b>DNS Caching</b>                       | This field is to enable DNS caching on the built-in DNS proxy server. When the option is enabled, queried DNS replies will be cached until the records' TTL has been reached. This feature can help improve DNS lookup time. However, it cannot return the most up-to-date result for those frequently updated DNS records. By default, <b>DNS Caching</b> is disabled.                                                                                                             |
| <b>Include Google Public DNS Servers</b> | When this option is <b>enabled</b> , the DNS proxy server will also forward DNS requests to Google's Public DNS Servers, in addition to the DNS servers defined in each WAN. This could increase the DNS service's availability. This setting is disabled by default.                                                                                                                                                                                                               |
| <b>Local DNS Records</b>                 | This table is for defining custom local DNS records. A static local DNS record consists of a host name and IP address. When looking up the host name from the LAN to LAN IP of the Peplink router, the corresponding IP address will be returned. Press  to create a new record. Press  to remove a record. |
| <b>Domain Lookup Policy</b>              | DNS Proxy will lookup the domain names defined in this table using the specified connections only.                                                                                                                                                                                                                                                                                                                                                                                  |

## DNS Resolvers <sup>A</sup>

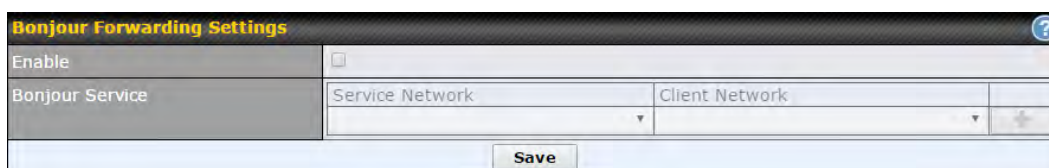
This field specifies which DNS servers can receive forwarded DNS requests. If no DNS server is selected, then all of them will be selected by default.

If you wish to select a SpeedFusion VPN peer, enter the IP address(es) of the VPN peer's DNS server.

Incoming queries will be forwarded to one of the selected servers. If none of the selected servers can be reached, then the router will forward incoming queries to all servers with healthy WAN connections.

<sup>A</sup> - Advanced feature, please click the  button on the top right hand corner to activate.

Finally, if needed, configure Bonjour forwarding, Apple's zero configuration networking protocol. Once VLAN configuration is complete, click **Save** to store your changes.

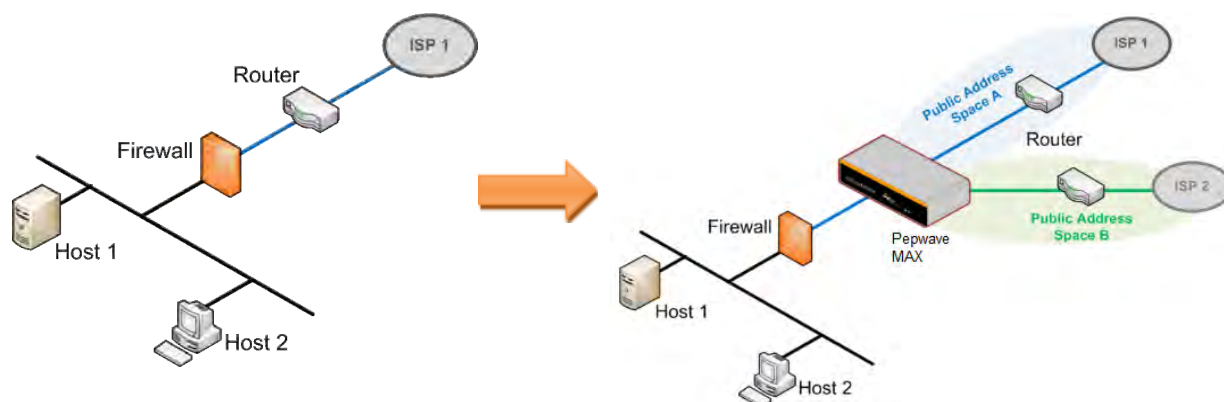


| Bonjour Forwarding Settings |                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Enable</b>               | Check this box to turn on Bonjour forwarding.                                                                                                                                                                                                                                                                                           |
| <b>Bonjour Service</b>      | Choose <b>Service</b> and <b>Client</b> networks from the drop-down menus, and then click  to add the networks. To delete an existing Bonjour listing, click  . |

## Drop-In Mode

Drop-in mode (or transparent bridging mode) eases the installation of the Peplink MAX on a live network between the firewall and router, such that changes to the settings of existing equipment are not required.

The following diagram illustrates drop-in mode setup:



Check the box Enable to enable the Drop-in Mode. After enabling this feature and selecting the WAN for Drop-in mode, various settings including the WAN's connection method and IP address will be automatically updated.

When drop-in mode is enabled, the LAN and the WAN for drop-in mode ports will be bridged. Traffic between the LAN hosts and WAN router will be forwarded between the devices. In this case, the hosts on both sides will not notice any IP or MAC address changes.

After successfully setting up the Peplink MAX as part of the network using drop-in mode, it will, depending on model, support one or more WAN connections. Some MAX units also support multiple WAN connections after activating drop-in mode, though a SpeedFusion license may be required to activate more than one WAN port.

**Please note the Drop-In Mode is mutually exclusive with VLAN.**