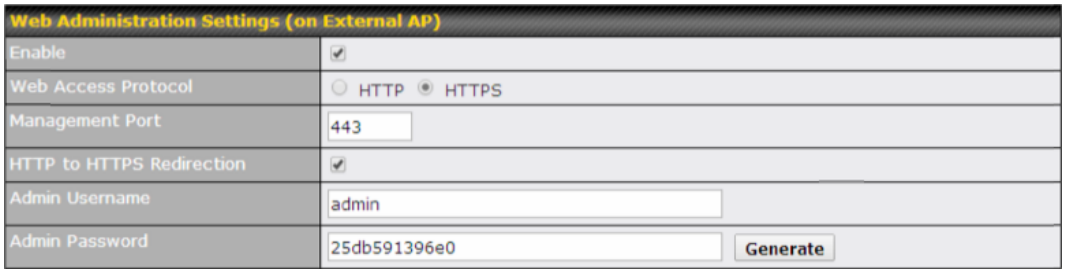
	maximum transmission power will be 20 dBm (100 mW). NOTE: Users are required to choose an option suitable to local laws and regulations. Per FCC regulation, the country selection is not available on all models marketed in US. All US models are fixed to US channels only.
Preferred Frequency	These buttons determine the frequency at which access points will attempt to broadcast. This feature will only work for APs that can transmit at both 2.4GHz and 5GHz frequencies.
5 GHz Protocol	This section displays the 5 GHz protocols your APs are using.
5GHz Channel Bonding	There are three options: **20 MHz**, **20/40 MHz**, and **40 MHz**. With this feature enabled, the Wi-Fi system can use two channels at once. Using two channels improves the performance of the Wi-Fi connection.
5 GHz Channel	This drop-down menu selects the 5 GHz 802.11 channel to be utilized. If **Auto** is set, the system will perform channel scanning based on the scheduled time set and choose the most suitable channel automatically.
2.4 GHz Protocol	This section displays the 2.4GHz protocols your APs are using.
2.4 GHz Channel Bonding	There are three options: **20 MHz**, **20/40 MHz**, and **40 MHz**. With this feature enabled, the Wi-Fi system can use two channels at once. Using two channels improves the performance of the Wi-Fi connection.
2.4 GHz Channel	This drop-down menu selects the 802.11 channel to be utilized. Available options are from 1 to 11 and from 1 to 13 for the North America region and Europe region, respectively. (Channel 14 is only available when the country is selected as Japan with protocol 802.11b.) If **Auto** is set, the system will perform channel scanning based on the scheduled time set and choose the most suitable channel automatically.
Management VLAN ID	This field specifies the VLAN ID to tag to management traffic, such as AP to AP controller communication traffic. The value is **0** by default, meaning that no VLAN tagging will be applied. NOTE: change this value with caution as alterations may result in loss of connection to the AP controller.
Power Boost[A]	With this option enabled, the AP under this profile will transmit using additional power. Please note that using this option with several APs in close proximity will lead to increased interference.
Output Power[A]	This drop-down menu determines the power at which the AP under this profile will broadcast. When fixed settings are selected, the AP will broadcast at the specified power level, regardless of context. When **Dynamic** settings are selected, the AP will adjust its power level based on its surrounding APs in order to maximize performance. The **Dynamic: Auto** setting will set the AP to do this automatically. Otherwise, the **Dynamic: Manual** setting will set the AP to dynamically adjust only of instructed to do so. If you have set **Dynamic:Manual**, you can go to **AP>Toolbox>Auto Power Adj.** to give your AP further instructions.
Beacon Rate[A]	This drop-down menu provides the option to send beacons in different transmit bit rates. The bit rates are **1Mbps**, **2Mbps**, **5.5Mbps**, **6Mbps**, and **11Mbps**.
Beacon Interval[A]	This drop-down menu provides the option to set the time between each beacon send. Available options are **100ms**, **250ms**, and **500ms**.
DTIM[A]	This field provides the option to set the frequency for beacon to include delivery traffic indication messages (DTIM). The interval unit is measured in milliseconds.

Slot Time[A]	This field provides the option to modify the unit wait time before it transmits. The default value is **9µs**.
ACK Timeout[A]	This field provides the option to set the wait time to receive acknowledgement packet before doing retransmission. The default value is **48µs**.
Frame Aggregation[A]	With this feature enabled, throughput will be increased by sending two or more data frames in a single transmission.

[A] - Advanced feature. Click the button on the top right-hand corner to activate.



Web Administration Settings	
Enable	Check the box to allow the Pepwave router to manage the web admin access information of the AP.
Web Access Protocol	These buttons specify the web access protocol used for accessing the web admin of the AP. The two available options are **HTTP** and **HTTPS**.
Management Port	This field specifies the management port used for accessing the device.
HTTP to HTTPS Redirection	This option will be available if you have chosen **HTTPS** as the **Web Access Protocol**. With this enabled, any HTTP access to the web admin will redirect to HTTPS automatically.
Admin User Name	This field specifies the administrator username of the web admin. It is set as *admin* by default.
Admin Password	This field allows you to specify a new administrator password. You may also click the **Generate** button and let the system generate a random password automatically.

Navigating to **AP>Settings** on some Pepwave models displays a screen similar to the one shown below:

Wi-Fi Radio Settings	
Operating Country	This option sets the country whose regulations the Pepwave router follows.
Wi-Fi Antenna	Choose from the router's internal or optional external antennas, if so equipped.

Important Note

Per FCC regulations, the country selection is not available on all models marketed in the US. All US models are fixed to US channels only.

Wi-Fi AP Settings	
Protocol	This option allows you to specify whether 802.11b and/or 802.11g client association requests will be accepted. Available options are **802.11ng** and **802.11na**. By default, **802.11ng** is selected.
Channel	This option allows you to select which 802.11 RF channel will be used. **Channel 1 (2.412 GHz)** is selected by default.
Channel Width	**Auto (20/40 MHz)** and **20 MHz** are available. The default setting is **Auto (20/40 MHz),** which allows both widths to be used simultaneously.
Output Power	This option is for specifying the transmission output power for the Wi-Fi AP. There are 4 relative power levels available – **Max**, **High**, **Mid**, and **Low**. The actual output power will be bound by the regulatory limits of the selected country.

Beacon Rate[A]	This option is for setting the transmit bit rate for sending a beacon. By default, **1Mbps** is selected.
Beacon Interval[A]	This option is for setting the time interval between each beacon. By default, **100ms** is selected.
DTIM[A]	This field allows you to set the frequency for the beacon to include a delivery traffic indication message. The interval is measured in milliseconds. The default value is set to **1 ms**.
Slot Time[A]	This field is for specifying the wait time before the Surf SOHO transmits a packet. By default, this field is set to **9 µs**.
ACK Timeout[A]	This field is for setting the wait time to receive an acknowledgement packet before performing a retransmission. By default, this field is set to **48 µs**.
Frame Aggregation[A]	This option allows you to enable frame aggregation to increase transmission throughput.
Guard Interval[A]	This setting allows choosing a short or long guard period interval for your transmissions.

[A] - Advanced feature, please click the button on the top right-hand corner to activate.

21.3 Toolbox

Tools for managing firmware packs can be found at **AP>Toolbox**.

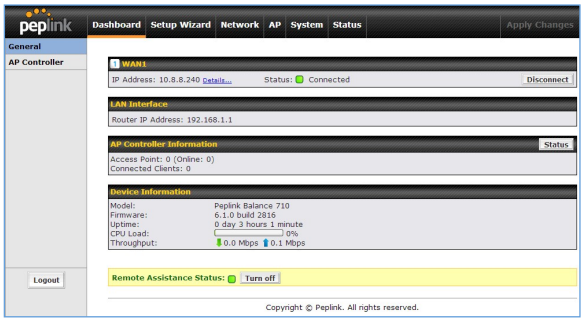
Firmware Packs

Here, you can manage the firmware of your AP. Clicking on will result in information regarding each firmware pack. To receive new firmware packs, you can click **Check for Updates** to download new packs, or you can click **Manual Upload** to manually upload a firmware pack. Click **Default** to define which firmware pack is default.

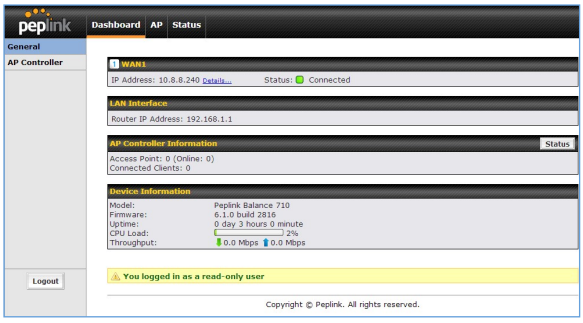
22 System Settings

22.1 Admin Security

There are two types of user accounts available for accessing the web admin: *admin* and *user*. They represent two user levels: the admin level has full administration access, while the user level is read-only. The user level can access only the device's status information; users cannot make any changes on the device.



Admin account UI

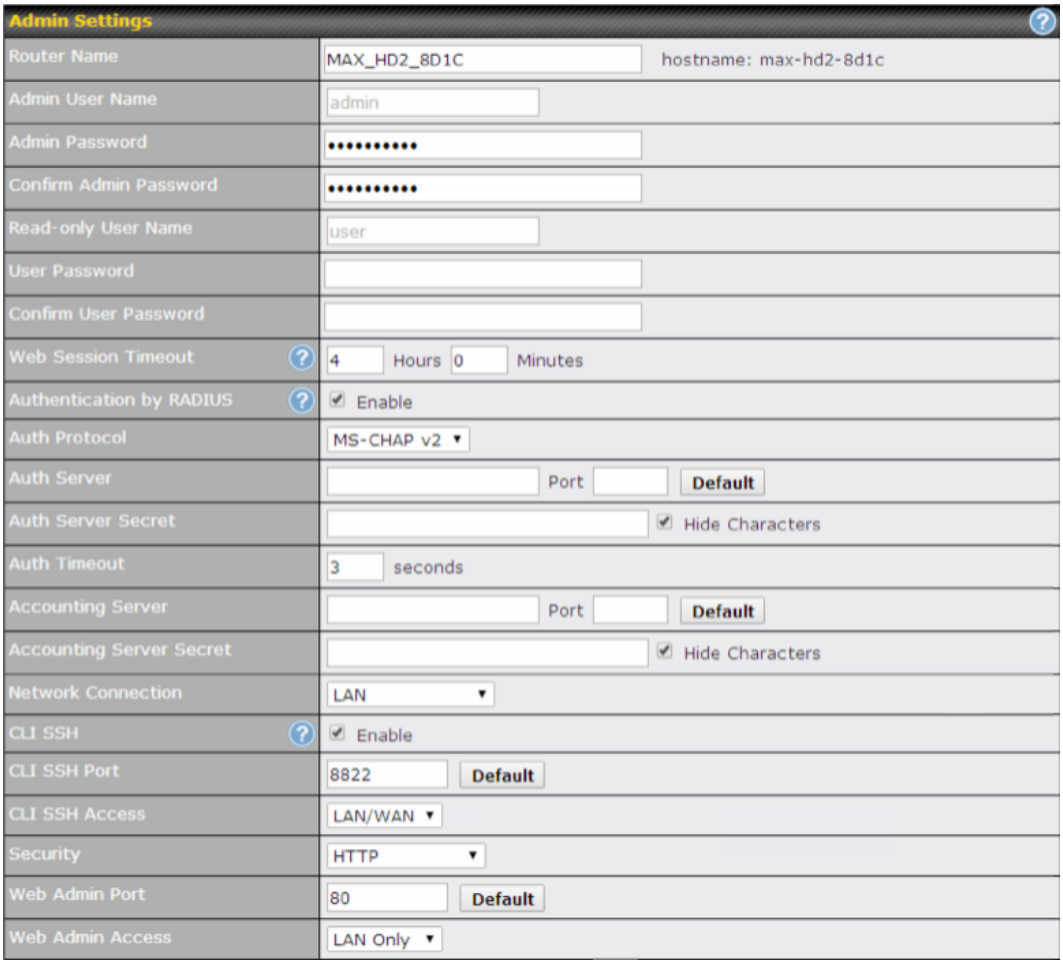


User account UI

A web login session will be logged out automatically when it has been idle longer than the **Web Session Timeout**. Before the session expires, you may click the **Logout** button in the web admin to exit the session.

0 hours 0 minutes signifies an unlimited session time. This setting should be used only in special situations, as it will lower the system security level if users do not log out before closing the browser. The **default** is 4 hours, 0 minutes.

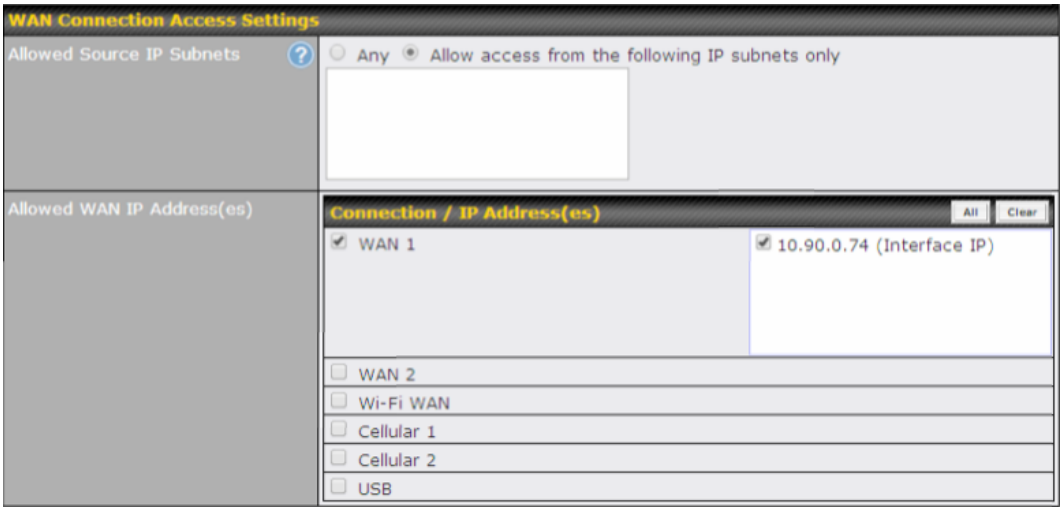
For security reasons, after logging in to the web admin Interface for the first time, it is recommended to change the administrator password. Configuring the administration interface to be accessible only from the LAN can further improve system security. Administrative settings configuration is located at **System>Admin Security**.



Admin Settings	
Router Name	This field allows you to define a name for this Pepwave router. By default, **Router Name** is set as **MAX_XXXX** or **Surf_SOHO_XXXX**, where *XXXX* refers to the last 4 digits of the unit's serial number.
Admin User Name	**Admin User Name** is set as *admin* by default, but can be changed, if desired.
Admin Password	This field allows you to specify a new administrator password.
Confirm Admin Password	This field allows you to verify and confirm the new administrator password.
Read-only User Name	**Read-only User Name** is set as *user* by default, but can be changed, if desired.
User Password	This field allows you to specify a new user password. Once the user password is set, the read-only user feature will be enabled.
Confirm User	This field allows you to verify and confirm the new user password.

Password	
Web Session Timeout	This field specifies the number of hours and minutes that a web session can remain idle before the Pepwave router terminates its access to the web admin interface. By default, it is set to **4 hours**.
Authentication by RADIUS	With this box is checked, the web admin will authenticate using an external RADIUS server. Authenticated users are treated as either "admin" with full read-write permission or “user” with read-only access. Local admin and user accounts will be disabled. When the device is not able to communicate with the external RADIUS server, local accounts will be enabled again for emergency access. Additional authentication options will be available once this box is checked.
Auth Protocol	This specifies the authentication protocol used. Available options are **MS-CHAP v2** and **PAP**.
Auth Server	This specifies the access address and port of the external RADIUS server.
Auth Server Secret	This field is for entering the secret key for accessing the RADIUS server.
Auth Timeout	This option specifies the time value for authentication timeout.
Accounting Server	This specifies the access address and port of the external accounting server.
Accounting Server Secret	This field is for entering the secret key for accessing the accounting server.
Network Connection	This option is for specifying the network connection to be used for authentication. Users can choose from LAN, WAN, and VPN connections.
CLI SSH	The CLI (command line interface) can be accessed via SSH. This field enables CLI support. For additional information regarding CLI, please refer to **Section 22.5**.
CLI SSH Port	This field determines the port on which clients can access CLI SSH.
CLI SSH Access	This menu allows you to choose between granting access to LAN and WAN clients, or to LAN clients only.
Security	This option is for specifying the protocol(s) through which the web admin interface can be accessed: • HTTP • HTTPS • HTTP/HTTPS
Web Admin Port	This field is for specifying the port number on which the web admin interface can be accessed.
Web Admin Access	This option is for specifying the network interfaces through which the web admin interface can be accessed: • LAN only • LAN/WAN

If LAN/WAN is chosen, the **WAN Connection Access Settings** form will be displayed.

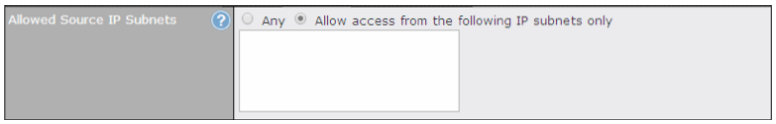


WAN Connection Access Settings

Allowed Source IP Subnets

This field allows you to restrict web admin access only from defined IP subnets.

- **Any** - Allow web admin accesses to be from anywhere, without IP address restriction.
- **Allow access from the following IP subnets only** - Restrict web admin access only from the defined IP subnets. When this is chosen, a text input area will be displayed beneath:



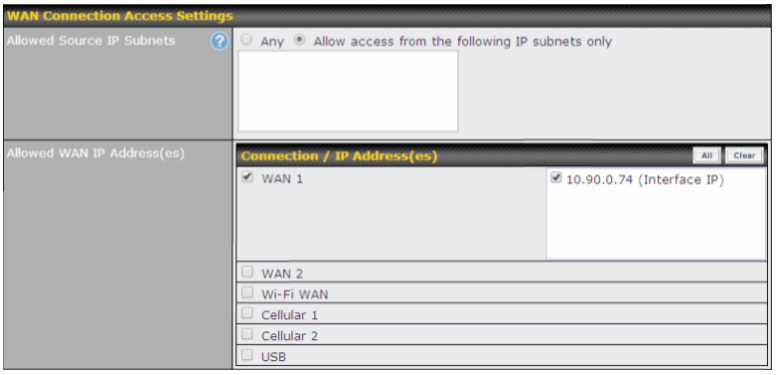
The allowed IP subnet addresses should be entered into this text area. Each IP subnet must be in form of *w.x.y.z/m*, where *w.x.y.z* is an IP address (e.g., *192.168.0.0*), and *m* is the subnet mask in CIDR format, which is between 0 and 32 inclusively (For example, *192.168.0.0/24*).

To define multiple subnets, separate each IP subnet one in a line. For example:

- 192.168.0.0/24
- 10.8.0.0/16

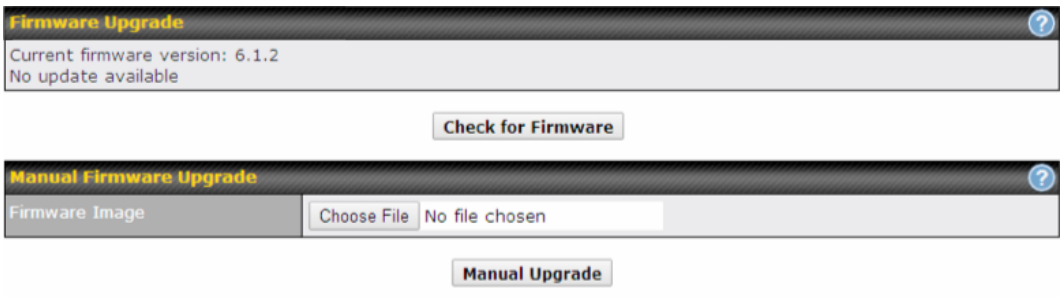
Allowed WAN IP Address(es)

This is to choose which WAN IP address(es) the web server should listen on.



22.2 Firmware

Pepwave router firmware is upgradeable through the web admin interface. Firmware upgrade functionality is located at **System>Firmware**.



There are two ways to upgrade the unit. The first method is through an online download. The second method is to upload a firmware file manually.

To perform an online download, click on the **Check for Firmware** button. The Pepwave router will check online for new firmware. If new firmware is available, the Pepwave router will automatically download the firmware. The rest of the upgrade process will be automatically initiated.

You may also download a firmware image from the Peplink website and update the unit manually. To update using a firmware image, click **Choose File** to select the firmware file from the local computer, and then click **Manual Upgrade** to send the firmware to the Pepwave router. It will then automatically initiate the firmware upgrade process.

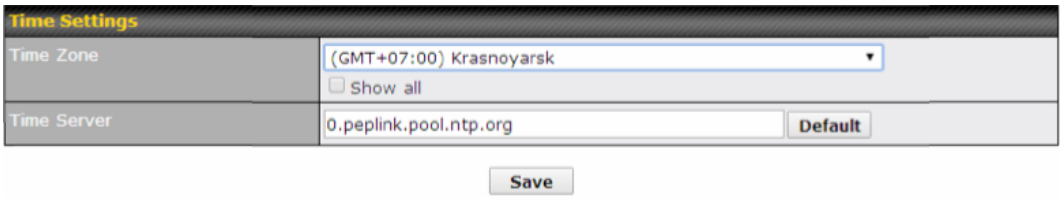
Please note that all Peplink devices can store two different firmware versions in two different partitions. A firmware upgrade will always replace the inactive partition. If you want to keep the inactive firmware, you can simply reboot your device with the inactive firmware and then perform the firmware upgrade.

Important Note
The firmware upgrade process may not necessarily preserve the previous configuration, and the behavior varies on a case-by-case basis. Consult the release notes for the particular firmware version before installing. Do not disconnect the power during firmware upgrade process. Do not attempt to upload a non-firmware file or a firmware file that is not supported by Peplink. Upgrading the Pepwave router with an invalid firmware file will damage the unit and may void the warranty.

Important Note
If the firmware is rolled back from 5.x to 4.x, the configurations will be lost.

22.3 Time

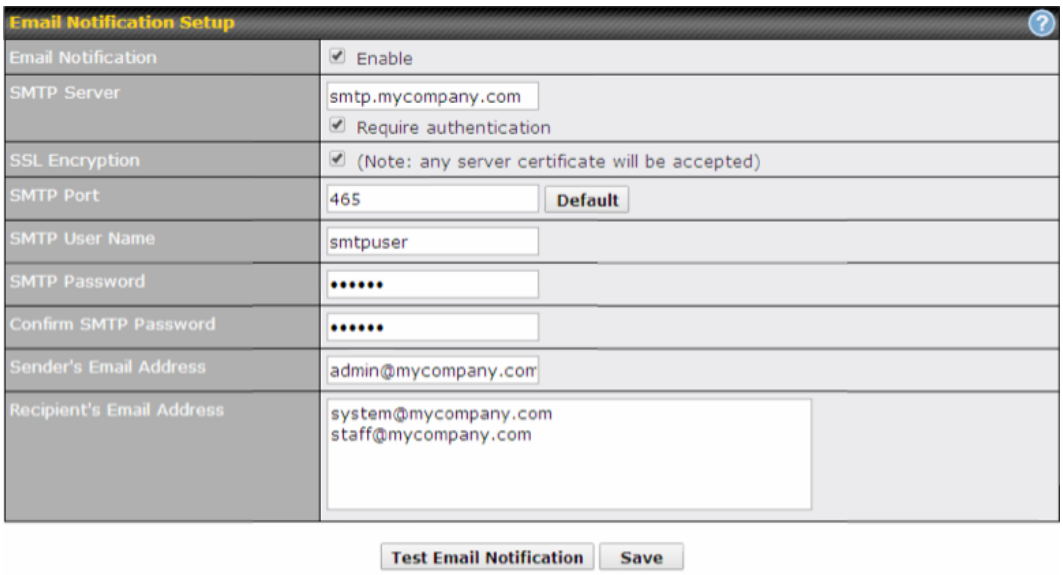
Time Settings enables the system clock of the Pepwave router to be synchronized with a specified time server. Time settings are located at **System>Time**.



Time Settings	
Time Zone	This specifies the time zone (along with the corresponding Daylight Savings Time scheme). The **Time Zone** value affects the time stamps in the Pepwave router's event log and e-mail notifications. Check **Show all** to show all time zone options.
Time Server	This setting specifies the NTP network time server to be utilized by the Pepwave router.

22.4 Email Notification

Email notification functionality provides a system administrator with up-to-date information on network status. The settings for configuring email notifications are found at **System>Email Notification**.

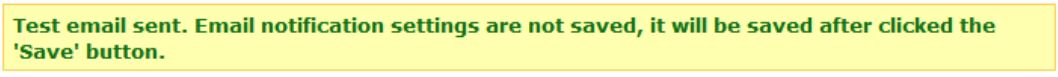


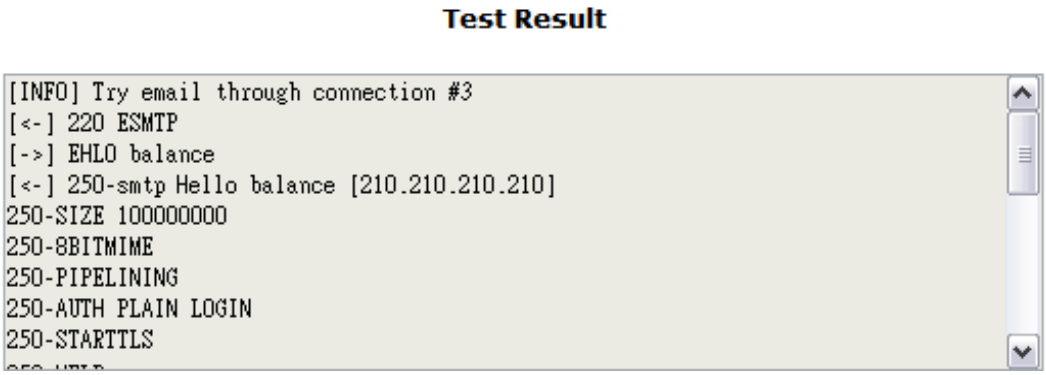
Email Notification Settings	
Email Notification	This setting specifies whether or not to enable email notification. If **Enable** is checked, the Pepwave router will send email messages to system administrators when the WAN status changes or when new firmware is available. If **Enable** is not checked, email notification is disabled and the Pepwave router will not send email messages.

SMTP Server	This setting specifies the SMTP server to be used for sending email. If the server requires authentication, check **Require authentication**.
SSL Encryption	Check the box to enable SMTPS. When the box is checked, **SMTP Port** will be changed to **465** automatically.
SMTP Port	This field is for specifying the SMTP port number. By default, this is set to **25**; when **SSL Encryption** is checked, the default port number will be set to **465**. You may customize the port number by editing this field. Click **Default** to restore the number to its default setting.
SMTP User Name / Password	This setting specifies the SMTP username and password while sending email. These options are shown only if **Require authentication** is checked in the **SMTP Server** setting.
Confirm SMTP Password	This field allows you to verify and confirm the new administrator password.
Sender's Email Address	This setting specifies the email address the Pepwave router will use to send reports.
Recipient's Email Address	This setting specifies the email address(es) to which the Pepwave router will send email notifications. For multiple recipients, separate each email addresses using the enter key.

After you have finished setting up email notifications, you can click the **Test Email Notification** button to test the settings before saving. After **Test Email Notification** is clicked, you will see this screen to confirm the settings:

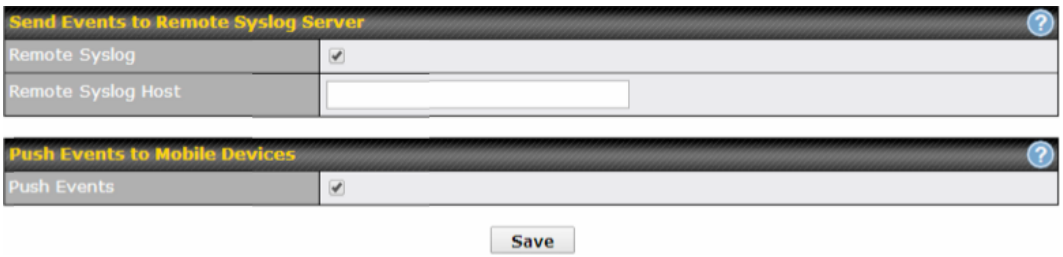
Click **Send Test Notification** to confirm. In a few seconds, you will see a message with detailed test results.





22.5 Event Log

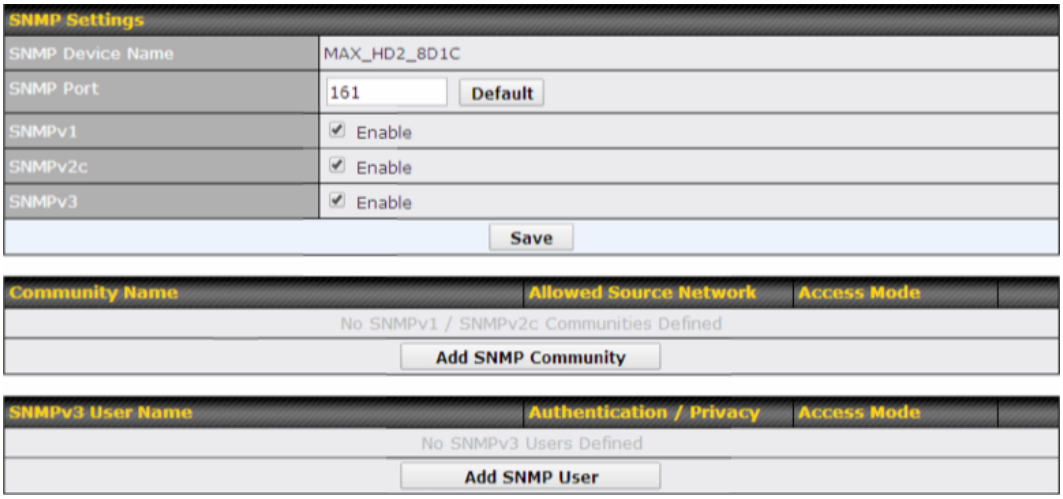
Event log functionality enables event logging at a specified remote syslog server. The settings for configuring the remote system log can be found at **System>Event Log**.



Event Log Settings	
Remote Syslog	This setting specifies whether or not to log events at the specified remote syslog server.
Remote Syslog Host	This setting specifies the IP address or hostname of the remote syslog server.
Push Events	The Pepwave router can also send push notifications to mobile devices that have our Mobile Router Utility installed. Check the box to activate this feature. For more information on the Router Utility, go to: www.peplink.com/products/router-utility

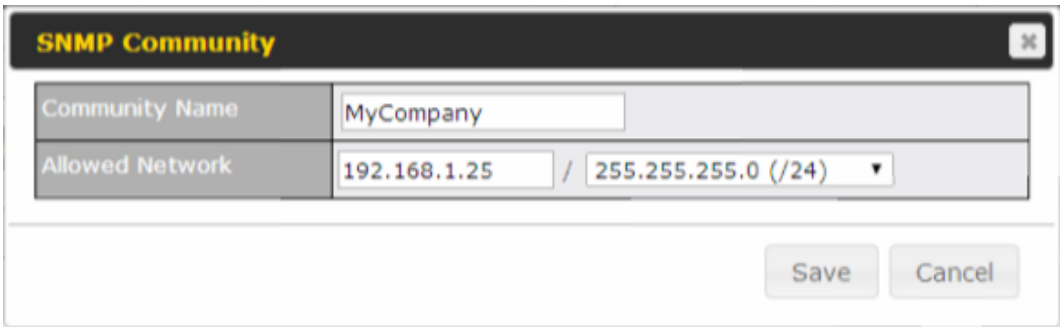
22.6 SNMP

SNMP or simple network management protocol is an open standard that can be used to collect information about the Pepwave router. SNMP configuration is located at **System>SNMP**.

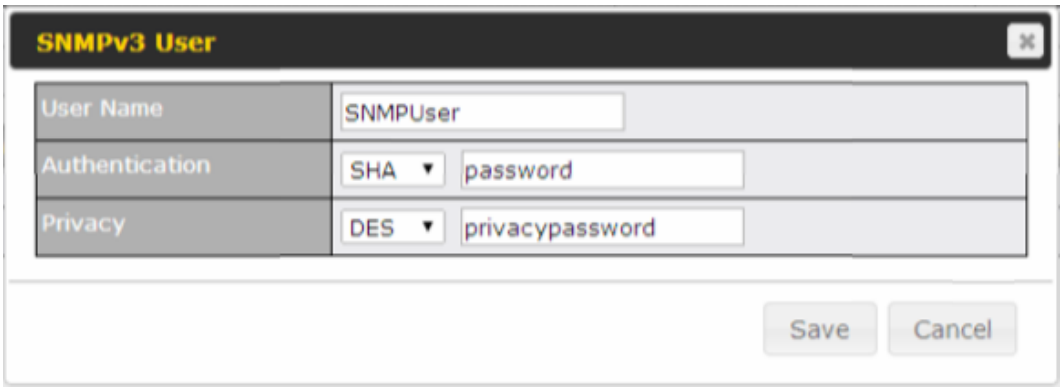


SNMP Settings	
SNMP Device Name	This field shows the router name defined at **System>Admin Security**.
SNMP Port	This option specifies the port which SNMP will use. The default port is **161**.
SNMPv1	This option allows you to enable SNMP version 1.
SNMPv2	This option allows you to enable SNMP version 2.
SNMPv3	This option allows you to enable SNMP version 3.

To add a community for either SNMPv1 or SNMPv2, click the **Add SNMP Community** button in the **Community Name** table, upon which the following screen is displayed:



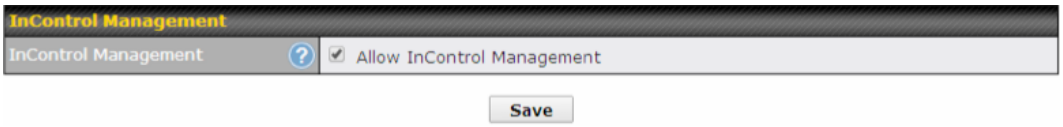
SNMP Community Settings	
Community Name	This setting specifies the SNMP community name.
Allowed Source Subnet Address	This setting specifies a subnet from which access to the SNMP server is allowed. Enter subnet address here (e.g., *192.168.1.0*) and select the appropriate subnet mask.



To define a user name for SNMPv3, click **Add SNMP User** in the **SNMPv3 User Name** table, upon which the following screen is displayed:

SNMPv3 User Settings	
User Name	This setting specifies a user name to be used in SNMPv3.
Authentication Protocol	This setting specifies via a drop-down menu one of the following valid authentication protocols: • NONE • MD5 • SHA When MD5 or SHA is selected, an entry field will appear for the password.
Privacy Protocol	This setting specifies via a drop-down menu one of the following valid privacy protocols: • NONE • DES When DES is selected, an entry field will appear for the password.

22.7 InControl



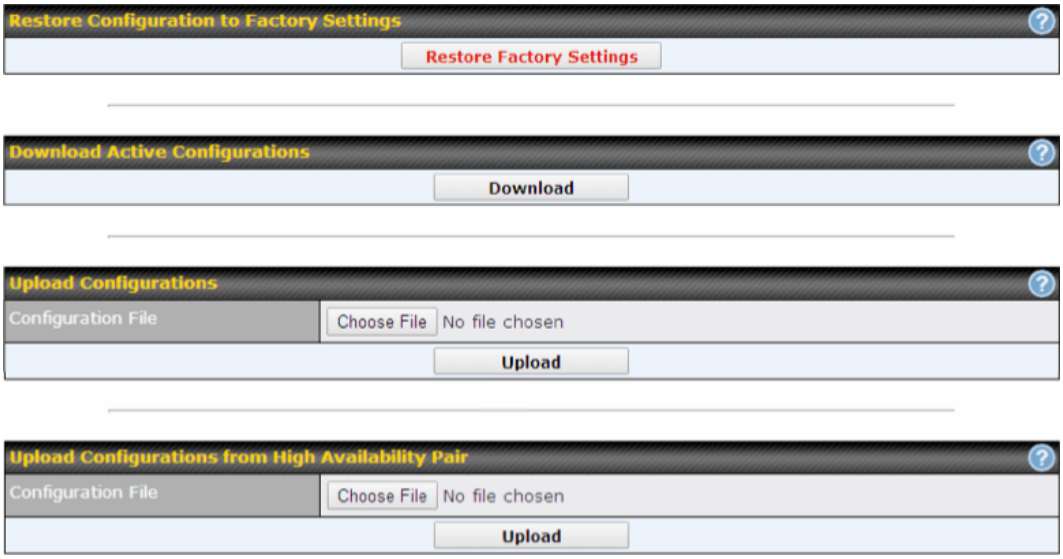
InControl is a cloud-based service which allows you to manage all of your Peplink and Pepwave devices with one unified system. With it, you can generate reports, gather statistics, and configure your devices automatically. All of this is now possible with InControl.

When this check box is checked, the device's status information will be sent to the Peplink InControl system. This device's usage data and configuration will be sent to the system if you enable the features in the system.

You can sign up for an InControl account at https://incontrol2.peplink.com/. You can register your devices under the account, monitor their status, see their usage reports, and receive offline notifications.

22.8 Configuration

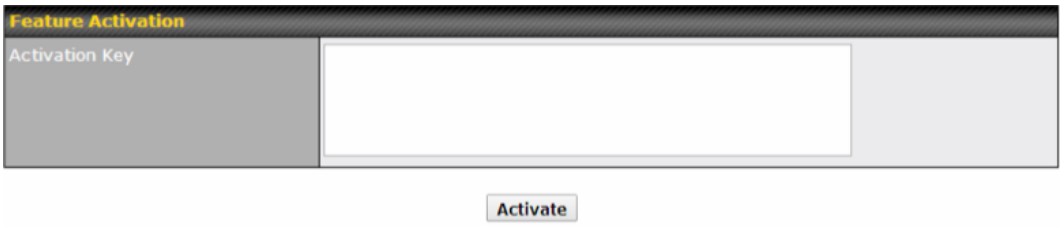
Backing up Pepwave router settings immediately after successful completion of initial setup is strongly recommended. The functionality to download and upload Pepwave router settings is found at **System>Configuration**. Note that available options vary by model.



Configuration	
Restore Configuration to Factory Settings	The **Restore Factory Settings** button is to reset the configuration to factory default settings. After clicking the button, you will need to click the **Apply Changes** button on the top right corner to make the settings effective.
Download Active Configurations	Click **Download** to backup the current active settings.
Upload Configurations	To restore or change settings based on a configuration file, click **Choose File** to locate the configuration file on the local computer, and then click **Upload**. The new settings can then be applied by clicking the **Apply Changes** button on the page header, or you can cancel the procedure by pressing **discard** on the main page of the web admin interface.
Upload Configurations from High Availability Pair	In a high availability (HA) configuration, a Pepwave router can quickly load the configuration of its HA counterpart. To do so, click the **Upload** button. After loading the settings, configure the LAN IP address of the Pepwve router so that it is different from the HA counterpart.

22.9 Feature Add-ons

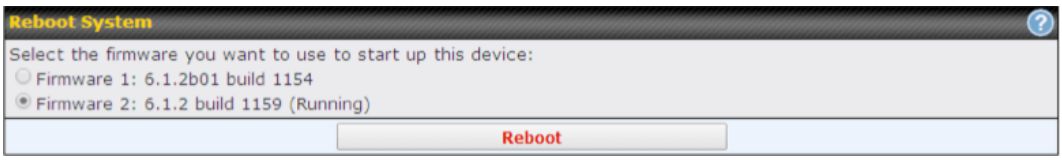
Some Pepwave routers have features that can be activated upon purchase. Once the purchase is complete, you will receive an activation key. Enter the key in the **Activation Key** field, click **Activate**, and then click **Apply Changes**.



22.10 Reboot

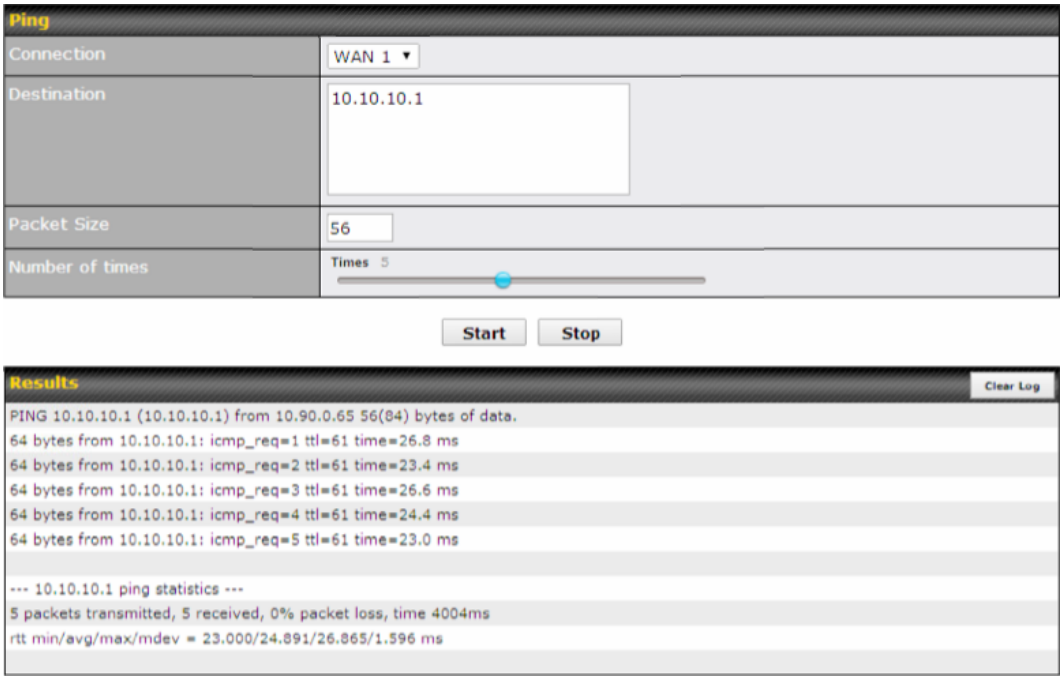
This page provides a reboot button for restarting the system. For maximum reliability, the Pepwave router can equip with two copies of firmware. Each copy can be a different version. You can select the firmware version you would like to reboot the device with. The firmware marked with **(Running)** is the current system boot up firmware.

Please note that a firmware upgrade will always replace the inactive firmware partition.



22.11 Ping

The ping test tool sends pings through a specified Ethernet interface or a SpeedFusion™ VPN connection. You can specify the number of pings in the field **Number of times**, to a maximum number of 10 times. **Packet Size** can be set to a maximum of 1472 bytes. The ping utility is located at **System>Tools>Ping,** illustrated below:

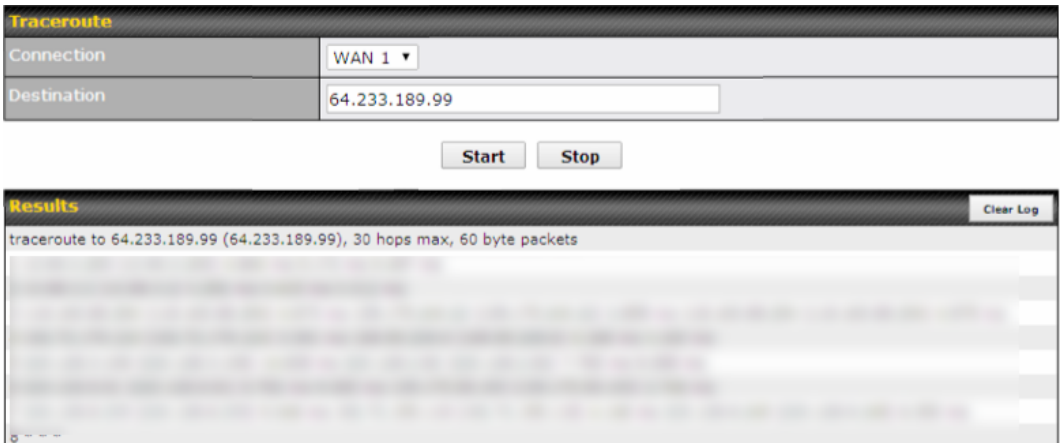


Tip

A system administrator can use the ping utility to manually check the connectivity of a particular LAN/WAN connection.

22.12 Traceroute Test

The traceroute test tool traces the routing path to the destination through a particular Ethernet interface or a SpeedFusion™ connection. The traceroute test utility is located at **System>Tools>Traceroute**.

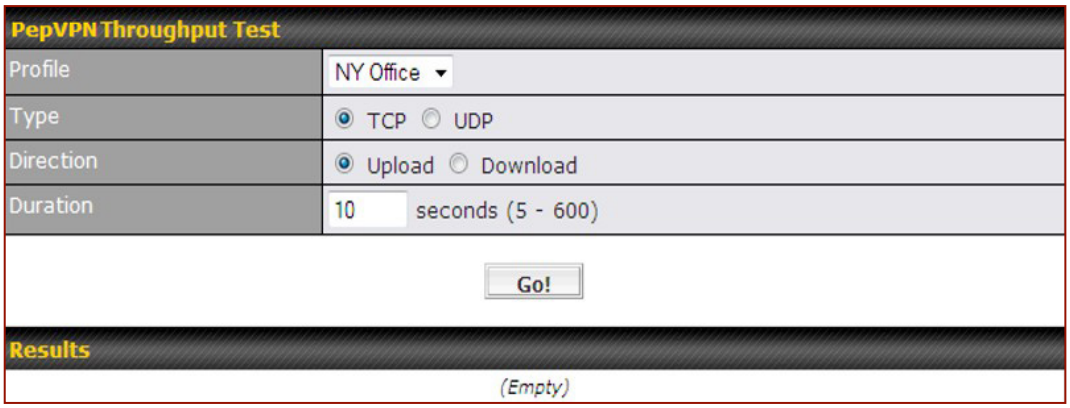


Tip

A system administrator can use the traceroute utility to analyze the connection path of a LAN/WAN connection.

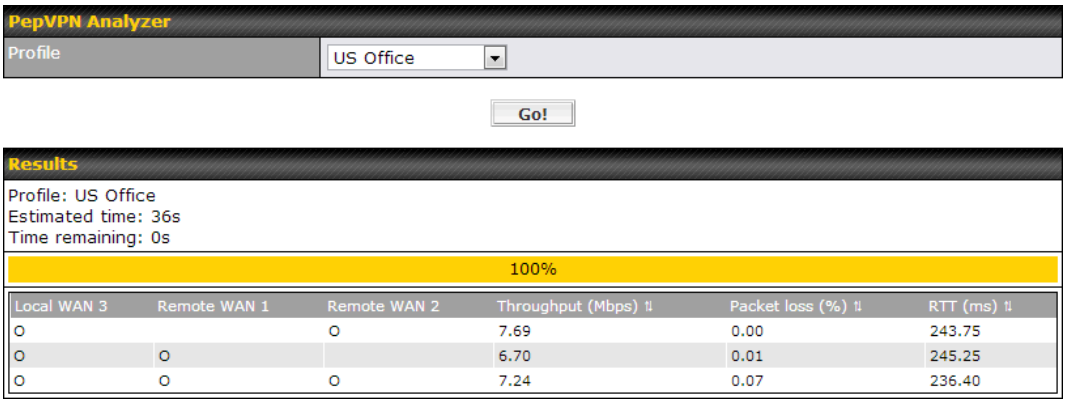
22.13 PepVPN Test

The **PepVPN Test** tool can help to test the throughput between different VPN peers. You can define the **Test Type**, **Direction**, and **Duration** of the test, and press **Go!** to perform the throughput test. The VPN test utility is located at **System>Tools>PepVPN Test**, illustrated as follows:



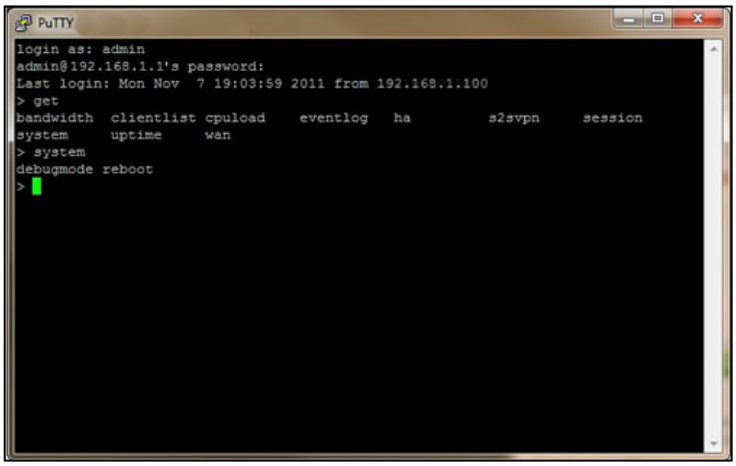
22.14 PepVPN Analyzer

The bandwidth bonding feature of PepVPN occurs when multiple WAN lines from one end merge with multiple WAN lines from the other end. For this to happen, each WAN line needs to form a connection with all the WAN lines on the opposite end. The function of the PepVPN analyzer is to report the throughput, packet loss, and latency of all possible combinations of connections. This feature is located at **System>PepVPN Analyzer**. To use this feature, simply choose your profile from the drop-down menu and click **Go!**



22.15 CLI (Command Line Interface Support)

The CLI (command line interface) can be accessed via SSH. This field enables CLI support. The below settings specify which TCP port and which interface(s) should accept remote SSH CLI access. The user name and password used for remote SSH CLI access are the same as those used for web admin access.



23 Status

23.1 Device

System information is located at **Status>Device**.

System Information	
Router Name	MAX_HD2_8D1C
Model	Pepwave MAX HD2
Hardware Revision	2
Serial Number	2830-A48A-8D1C
Firmware	6.1.2 build 2642
PepVPN Version	3.0.0
Modem Support Version	1015 (Modem Support List)
Host Name	max-hd2-8d1c
Uptime	17 days 9 hours 16 minutes
System Time	Mon Jul 07 17:42:46 WET 2014
Diagnostic Report	Download
Remote Assistance	Turn on

System Information	
Router Name	This is the name specified in the **Router Name** field located at **System>Admin Security**.
Model	This shows the model name and number of this device.
Product Code	If your model uses a product code, it will appear here.
Hardware Revision	This shows the hardware version of this device.
Serial Number	This shows the serial number of this device.
Firmware	This shows the firmware version this device is currently running.
PepVPN Version	This shows the current PepVPN version.
Modem Support Version	This shows the modem support version. For a list of supported modems, click **Modem Support List**.
Host Name	The host name assigned to the Pepwave router appears here.
Uptime	This shows the length of time since the device has been rebooted.
System Time	This shows the current system time.
Diagnostic Report	The **Download** link is for exporting a diagnostic report file required for system investigation.

Remote Assistance	Click **Turn on** to enable remote assistance.

Interface	MAC Address
LAN Port	00:1A:DD:BD:54:40
WAN 1	00:1A:DD:BD:54:41
WAN 2	00:1A:DD:BD:54:42

The second table shows the MAC address of each LAN/WAN interface connected. To view your device's End User License Agreement (EULA), click ⚖.

Important Note

If you encounter issues and would like to contact the Pepwave Support Team (http://www.pepwave.com/contact/), please download the diagnostic report file and attach it along with a description of your issue.
In Firmware 5.1 or before, the diagnostic report file can be obtained at **System>Reboot.**

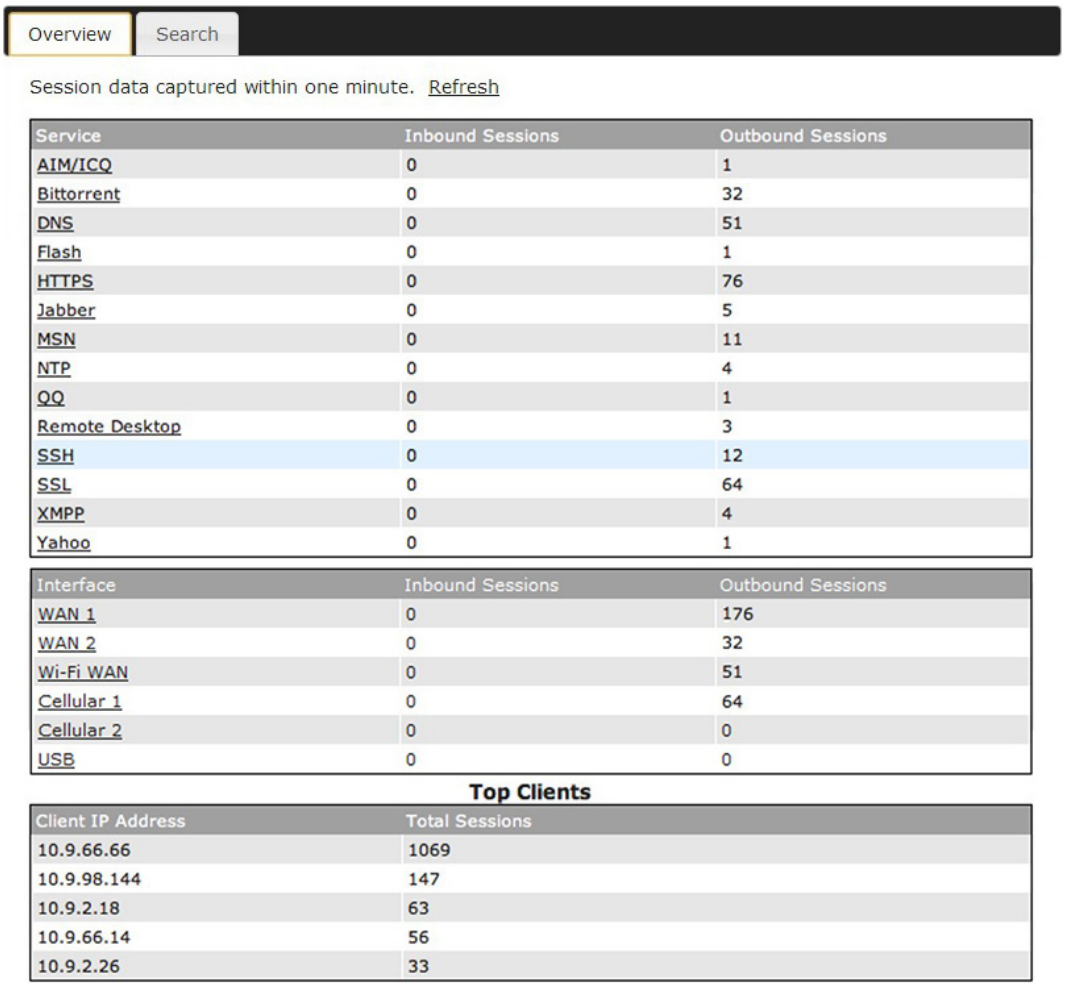
23.1.1 GPS Data

The MAX HD2 and HD2 IP67 automatically store up to seven days of GPS location data in GPS eXchange format (GPX). To review this data using third-party applications, click **Status>Device** and then download your GPX file.

The Pepwave MAX BR1, HD2, and HD2 IP67 export real-time location data in NMEA format through the LAN IP address at TCP port 60660. It is accessible from the LAN or over a SpeedFusion connection. To access the data via a virtual serial port, install a virtual serial port driver. Visit http://www.peplink.com/index.php?view=faq&id=294 to download the driver.

23.2 Active Sessions

Information on active sessions can be found at **Status>Active Sessions>Overview.**



Overview | Search

Session data captured within one minute. Refresh

Service	Inbound Sessions	Outbound Sessions
AIM/ICQ	0	1
Bittorrent	0	32
DNS	0	51
Flash	0	1
HTTPS	0	76
Jabber	0	5
MSN	0	11
NTP	0	4
QQ	0	1
Remote Desktop	0	3
SSH	0	12
SSL	0	64
XMPP	0	4
Yahoo	0	1

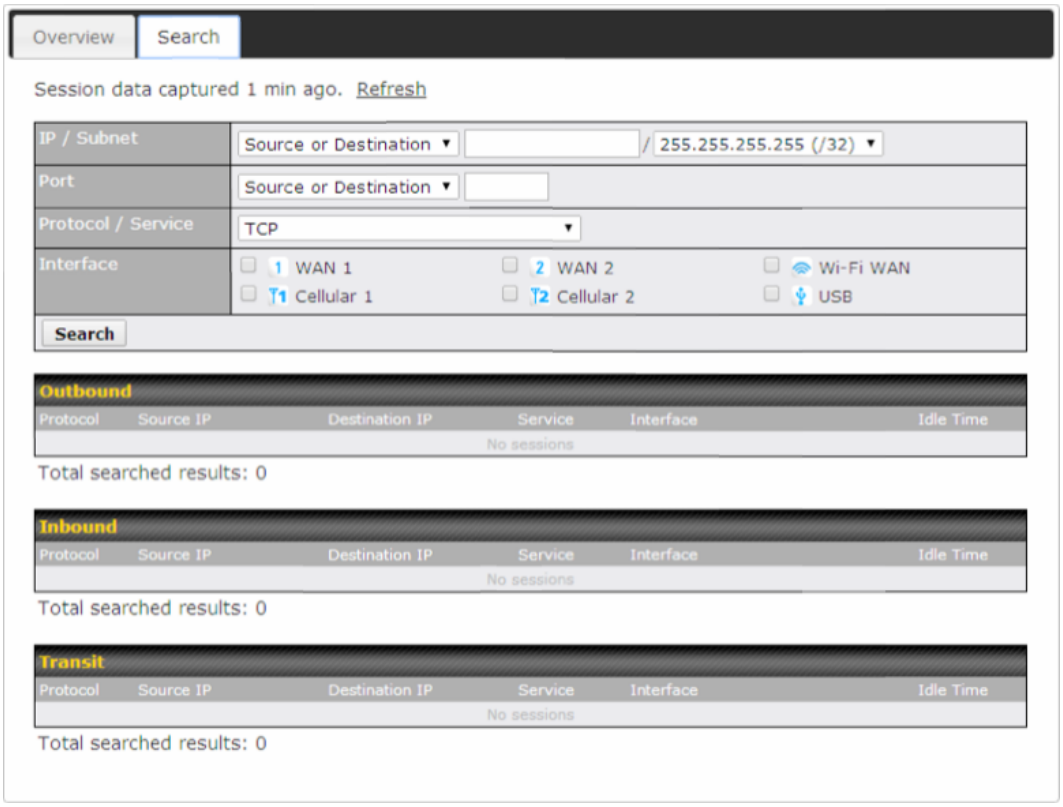
Interface	Inbound Sessions	Outbound Sessions
WAN 1	0	176
WAN 2	0	32
Wi-Fi WAN	0	51
Cellular 1	0	64
Cellular 2	0	0
USB	0	0

Top Clients

Client IP Address	Total Sessions
10.9.66.66	1069
10.9.98.144	147
10.9.2.18	63
10.9.66.14	56
10.9.2.26	33

This screen displays the number of sessions initiated by each application. Click on each service listing for additional information. This screen also indicates the number of sessions initiated by each WAN port. In addition, you can see which clients are initiating the most sessions.

You can also perform a filtered search for specific sessions. You can filter by subnet, port, protocol, and interface. To perform a search, navigate to **Status>Active Sessions>Search**.

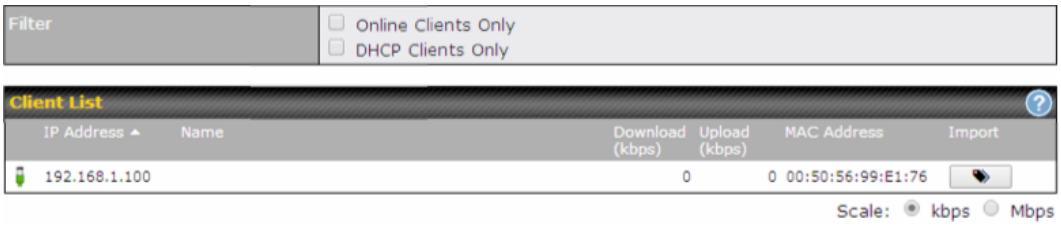


This **Active Sessions** section displays the active inbound/outbound sessions of each WAN connection on the Pepwave router. A filter is available to sort active session information. Enter a keyword in the field or check one of the WAN connection boxes for filtering.

23.3 Client List

The client list table is located at **Status>Client List**. It lists DHCP and online client IP addresses**,** names (retrieved from the DHCP reservation table or defined by users), current download and upload rate, and MAC address.

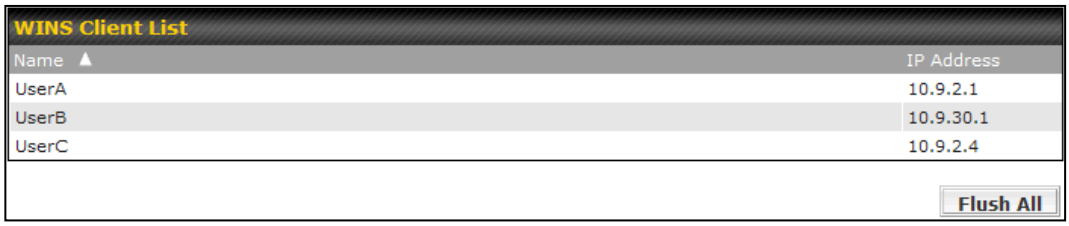
Clients can be imported into the DHCP reservation table by clicking the button on the right. You can update the record after import by going to **Network>LAN**.



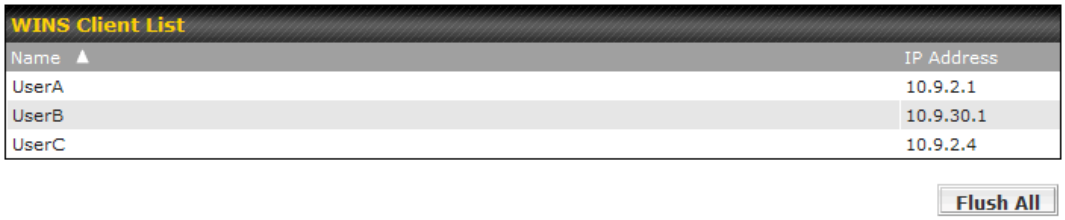
If the PPTP server (see **Section 19.2),** SpeedFusion™ (see **Section 12.1**), or AP controller (see **Section 20**) is enabled, you may see the corresponding connection name listed in the **Name** field.

23.4 WINS Client

The WINS client list table is located at **Status>WINS Client**.

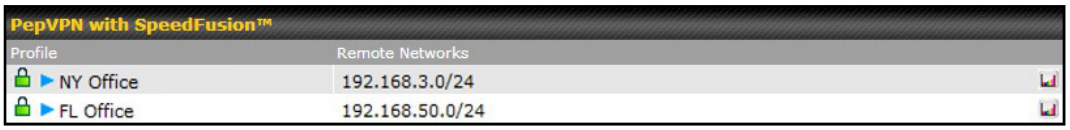


The WINS client table lists the IP addresses and names of WINS clients. This option will only be available when you have enabled the WINS server (see **Section 8**). The names of clients retrieved will be automatically matched into the Client List (see previous section). Click **Flush All** to flush all WINS client records.

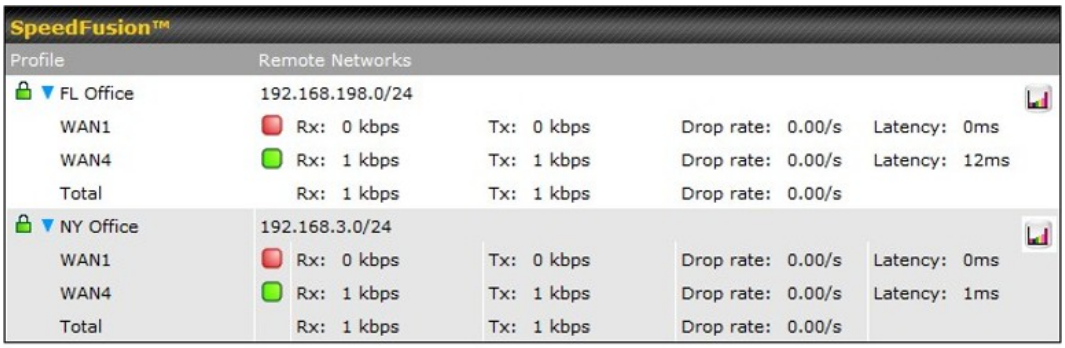


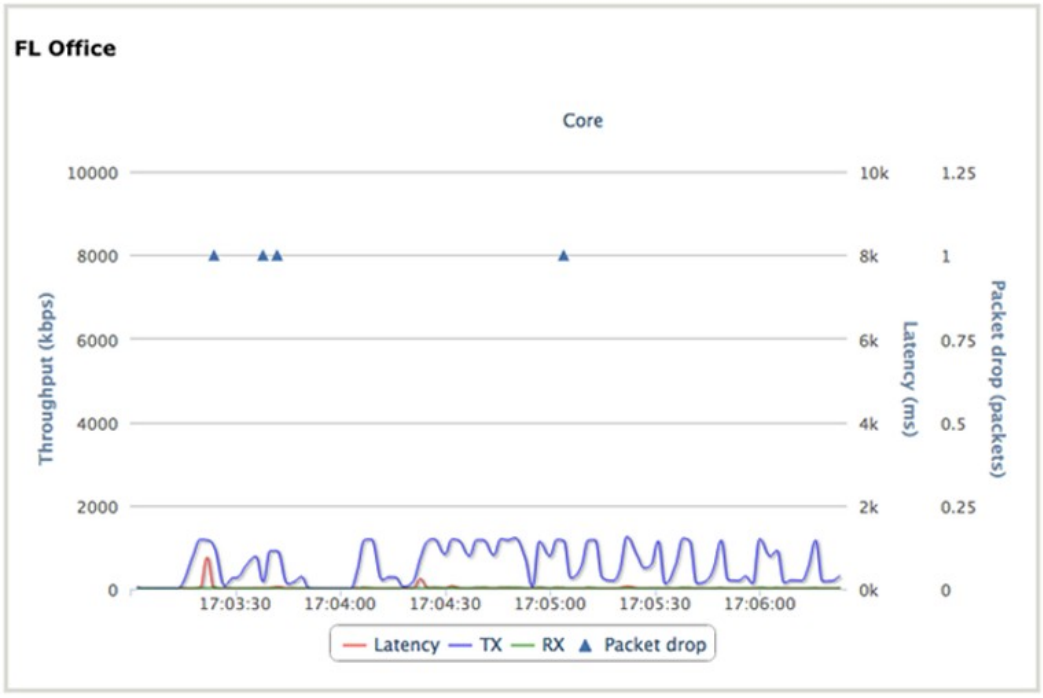
23.5 SpeedFusion™ Status

Current SpeedFusion™ status information is located at **Status>SpeedFusion™**. Details about SpeedFusion™ connection peers appears as below:



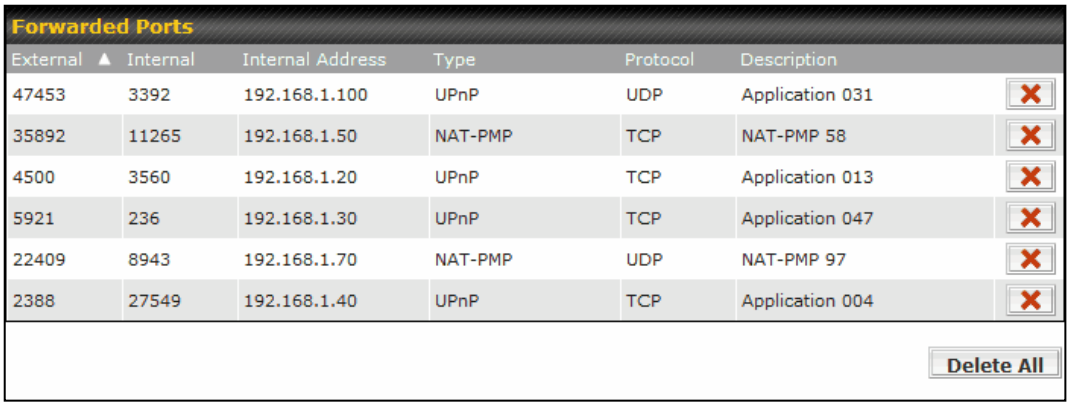
Click on the corresponding peer name to explore the WAN connection(s) status and subnet information of each VPN peer.





23.6 UPnP / NAT-PMP

The table that shows the forwarded ports under UPnP and NAT-PMP protocols is located at **Status>UPnP/NAT-PMP**. This section appears only if you have enabled UPnP / NAT-PMP as mentioned in **Section 16.1.1**.



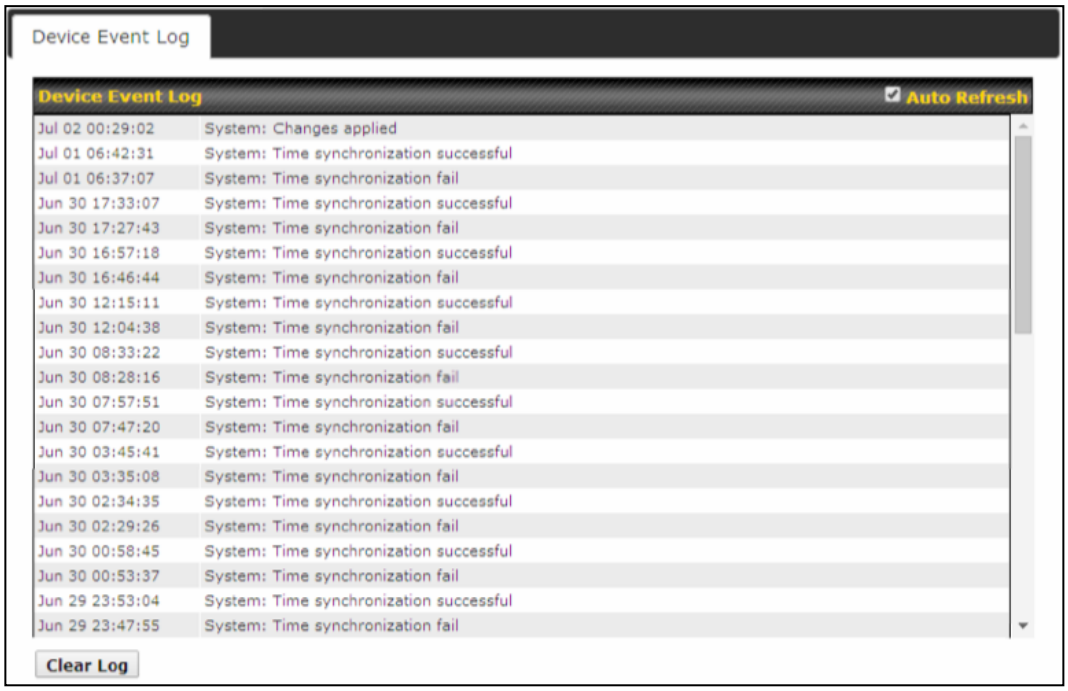
Click  to delete a single UPnP / NAT-PMP record in its corresponding row. To delete all records, click **Delete All** on the right-hand side below the table.

Important Note

UPnP / NAT-PMP records will be deleted immediately after clicking the button  or **Delete All,** without the need to click **Save** or **Confirm**.

23.7 Event Log

Event log information is located at **Status>Event Log**.



The log section displays a list of events that has taken place on the Pepwave router. Check **Auto Refresh** to refresh log entries automatically. Click the **Clear Log** button to clear the log.

23.8 Bandwidth

This section shows bandwidth usage statistics and is located at **Status>Bandwidth**. Bandwidth usage at the LAN while the device is switched off (e.g., LAN bypass) is neither recorded nor shown.

23.8.1 Real-Time

The **Data transferred since installation** table indicates how much network traffic has been processed by the device since the first bootup. The **Data transferred since last reboot** table indicates how much network traffic has been processed by the device since the last bootup.

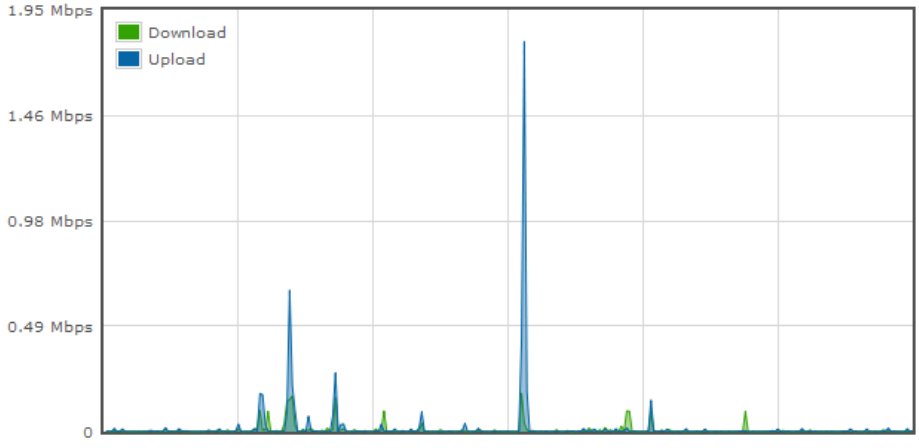
Data transferred since installation (Tue Oct 12 23:11:14 PST 2010)

	Download	Upload	Total
All WAN Connections	10.63 GB	12.99 GB	23.62 GB

Data transferred since last reboot [Hide Details]

	Download	Upload	Total
All WAN Connections	224 MB	178 MB	402 MB
Ethernet WAN	212 MB	175 MB	387 MB
Express Card	0 MB	0 MB	0 MB
PC Card	0 MB	0 MB	0 MB
USB1	0 MB	0 MB	0 MB
USB2	0 MB	0 MB	0 MB
Wi-Fi WAN	12 MB	3 MB	15 MB

Aggregated Transfer

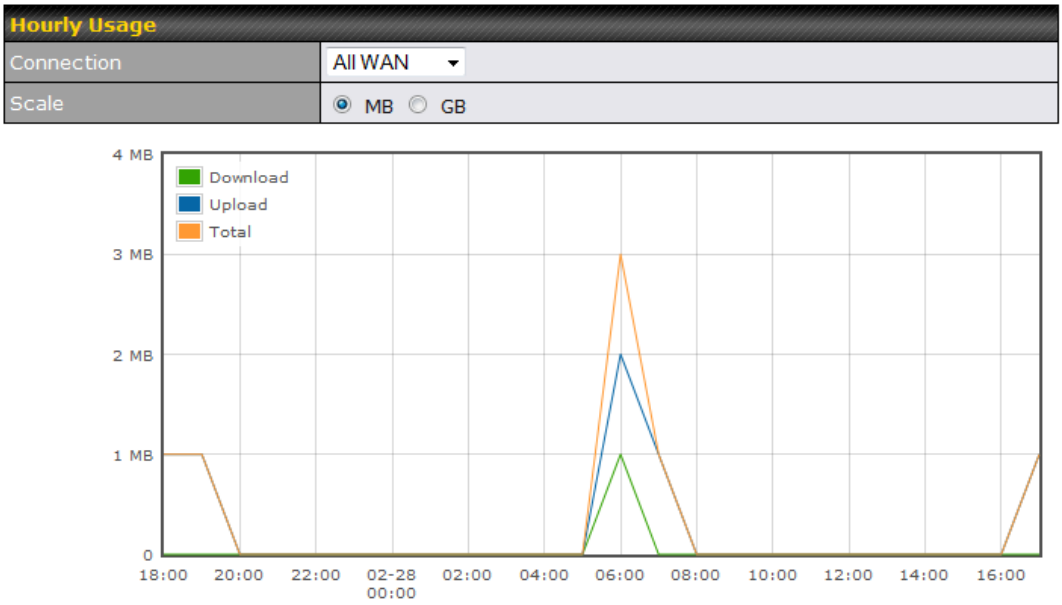


Avg: 0.01 Mbps 0.02 Mbps Peak: 0.18 Mbps 1.80 Mbps Stacked

	Download	Upload	Total
Overall	4 kbps	5 kbps	9 kbps

23.8.2 Hourly

This page shows the hourly bandwidth usage for all WAN connections, with the option of viewing each individual connection. Select the desired connection to check from the drop-down menu.



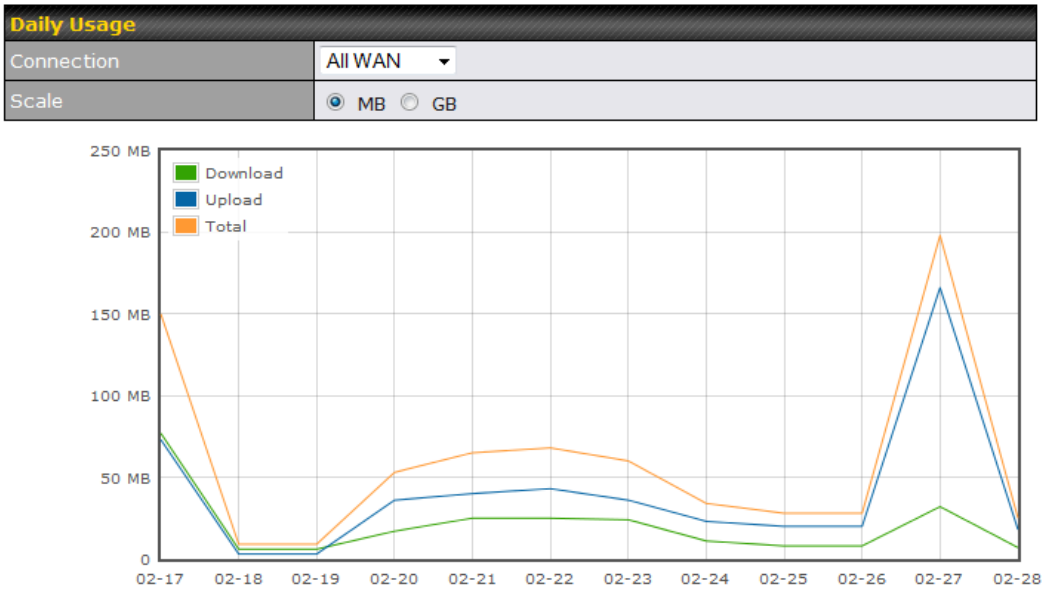
Date	Download	Upload	Total
17:00	0 MB	1 MB	1 MB
16:00	0 MB	0 MB	0 MB
15:00	0 MB	0 MB	0 MB
14:00	0 MB	0 MB	0 MB
13:00	0 MB	0 MB	0 MB
12:00	0 MB	0 MB	0 MB
11:00	0 MB	0 MB	0 MB
10:00	0 MB	0 MB	0 MB

23.8.3 Daily

This page shows the daily bandwidth usage for all WAN connections, with the option of viewing each individual connection.

Select the connection to check from the drop-down menu. If you have enabled the **Bandwidth Monitoring** feature**,** the **Current Billing Cycle** table for that WAN connection will be displayed.

Click on a date to view the client bandwidth usage of that specific date. This feature is not available if you have selected to view the bandwidth usage of only a particular WAN connection. The scale of the graph can be set to display megabytes (**MB**) or gigabytes (**GB**).



Date	Download	Upload	Total
2012-02-28	7 MB	18 MB	25 MB
2012-02-27	32 MB	166 MB	198 MB
2012-02-26	8 MB	20 MB	28 MB
2012-02-25	8 MB	20 MB	28 MB
2012-02-24	11 MB	23 MB	34 MB
2012-02-23	24 MB	36 MB	60 MB
2012-02-22	25 MB	43 MB	68 MB
2012-02-21	25 MB	40 MB	65 MB
2012-02-20	17 MB	36 MB	53 MB
2012-02-19	6 MB	3 MB	9 MB
2012-02-18	6 MB	3 MB	9 MB
2012-02-17	77 MB	73 MB	150 MB

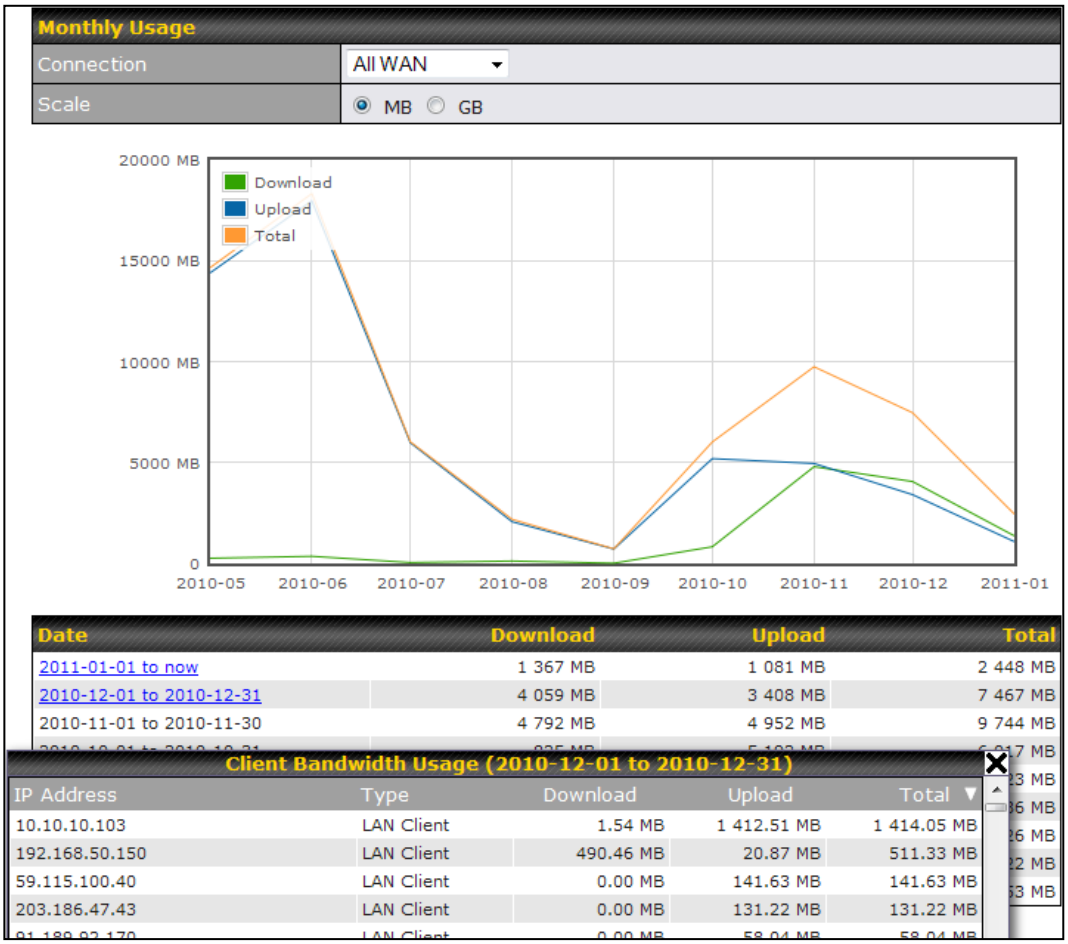
Current Month	
Down	249 MB
Up	489 MB
Total	738 MB

All WAN Daily Bandwidth Usage

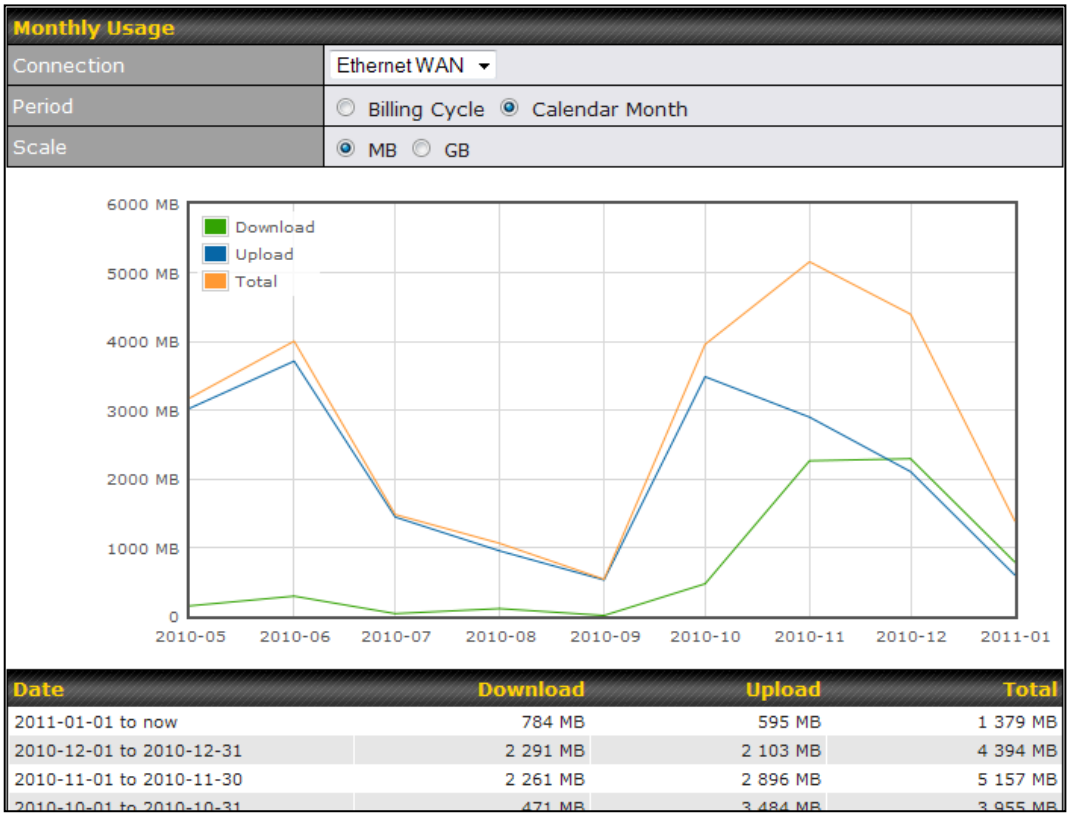
23.8.4 Monthly

This page shows the monthly bandwidth usage for each WAN connection. If you have enabled the **Bandwidth Monitoring** feature, you can check the usage of each particular connection and view the information by **Billing Cycle** or by **Calendar Month**.

Click the first two rows to view the client bandwidth usage in the last two months. This feature is not available if you have chosen to view the bandwidth of an individual WAN connection. The scale of the graph can be set to display megabytes (**MB**) or gigabytes (**GB**).



All WAN Monthly Bandwidth Usage



Ethernet WAN Monthly Bandwidth Usage

Tip

By default, the scale of data size is in **MB**. 1GB equals 1024MB.

Appendix A. Restoration of Factory Defaults

To restore the factory default settings on a Pepwave router, follow the steps below:

1. Locate the reset button on the front or back panel of the Pepwave router.
2. With a paper clip, press the reset button and hold it for at least 10 seconds, until the unit reboots itself.

After the Pepwave router finishes rebooting, the factory default settings will be restored.

Important Note
All previous configurations and bandwidth usage data will be lost after restoring factory default settings. Regular backup of configuration settings is strongly recommended.

Appendix B. Declaration

1. **The device supports time division technology**

2. **Federal Communication Commission Interference Statement**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

IMPORTANT NOTE

FCC Radiation Exposure Statement (for MAX700/ HD2/ HD2 IP67/ BR1)

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

FCC Radiation Exposure Statement (for HD4)

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 40cm between the radiator & your body.

1. 65cm minimum when the product is operated with a plug-in 3G USB device which has maximum of 7W ERP output power.
2. For co-transmission scenario which is not covered above, please consult the RF technician or device supplier.

FCC Radiation Exposure Statement (for MAX On-The-Go)

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

1. 20cm minimum when the product is operated alone without co-transmitting with a plug-in 3G USB dongle device.
2. 65cm minimum when the product is operated with a plug-in 3G USB device which has maximum of 7W ERP output power.
3. For co-transmission scenario which is not covered above, please consult the RF technician or device supplier.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination.

3. CE Statement for Pepwave Routers

Europe – EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

- EN 60950-1: 2006 + A11 : 2009+A1 : 2010+ A12: 2011
  Safety of Information Technology Equipment

- EN50385 : 2002 / Article 3(1)(a)
  Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to radio frequency electromagnetic fields (110MHz - 40 GHz) - General public

  EN 300 328 V1.7.1: 2006
  Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

- EN 301 908-1 V5.2.1: 2011
  Electromagnetic compatibility and Radio spectrum Matters (ERM); Base Stations (BS), Repeaters and User Equipment (UE) for IMT-2000 Third-Generation cellular networks; Part 1: Harmonized EN for IMT-2000, introduction and common

requirements, covering essential requirements of article 3.2 of the R&TTE Directive

- EN 301 511 V9.0.2: 2003
  Global System for Mobile communications (GSM); Harmonized standard for mobile stations in the GSM 900 and DCS 1800 bands covering essential requirements under article 3.2 of the R&TTE directive (1999/5/EC)

- EN 301 489-1 V1.9.2: 2008
  Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

- EN 301 489-7 V1.3.1: 2005
  ElectroMagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment ad services; Part 7: Specific conditions for mobile and portable radio and ancillary equipment of digital cellular radio telecommunications systems (GSM and DCS)

- EN 301 489-17 V2.2.1: 2012
  Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment

- EN 301 489-24 V1.5.1: 2010
  Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 24: Specific conditions for IMT-2000 CDMA Direct Spread (UTRA) for Mobile and portable (UE) radio and ancillary equipment

CE 0081

cs Česky [Czech]	*[Jméno výrobce]* tímto prohlašuje, že tento *[typ zařízení]* je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
da Dansk [Danish]	Undertegnede *[fabrikantens navn]* erklærer herved, at følgende udstyr *[udstyrets typebetegnelse]* overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
de Deutsch [German]	Hiermit erklärt *[Name des Herstellers]*, dass sich das Gerät *[Gerätetyp]* in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
et Eesti [Estonian]	Käesolevaga kinnitab *[tootja nimi = name of manufacturer]* seadme *[seadme tüüp = type of equipment]* vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
en English	Hereby, *[name of manufacturer]*, declares that this *[type of equipment]* is in

	compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Español [Spanish]	Por medio de la presente *[nombre del fabricante]* declara que el *[clase de equipo]* cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ *[name of manufacturer]* ΔΗΛΩΝΕΙ ΟΤΙ *[type of equipment]* ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
Français [French]	Par la présente *[nom du fabricant]* déclare que l'appareil *[type d'appareil]* est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Italiano [Italian]	Con la presente *[nome del costruttore]* dichiara che questo *[tipo di apparecchio]* è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo *[name of manufacturer / izgatavotāja nosaukums]* deklarē, ka *[type of equipment / iekārtas tips]* atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo *[manufacturer name]* deklaruoja, kad šis *[equipment type]* atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Nederlands [Dutch]	Hierbij verklaart *[naam van de fabrikant]* dat het toestel *[type van toestel]* in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
Malti [Maltese]	Hawnhekk, *[isem tal-manifattur]*, jiddikjara li dan *[il-mudel tal-prodott]* jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Magyar [Hungarian]	Alulírott, *[gyártó neve]* nyilatkozom, hogy a *[... típus]*megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.
Polski [Polish]	Niniejszym *[nazwa producenta]* oświadcza, że *[nazwa wyrobu]* jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Português [Portuguese]	*[Nome do fabricante]* declara que este *[tipo de equipamento]* está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Slovensko [Slovenian]	*[Ime proizvajalca]* izjavlja, da je ta *[tip opreme]* v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	*[Meno výrobcu]* týmto vyhlasuje, že *[typ zariadenia]*spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Suomi [Finnish]	*[Valmistaja = manufacturer]* vakuuttaa täten että *[type of equipment = laitteen tyyppimerkintä]* tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar *[företag]* att denna *[utrustningstyp]* står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

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