Configure PPPoE WAN Settings on the RV34x Router

Objective

This article aims to show you how to configure the PPPoE WAN settings on the RV34x Router.

Introduction

A Wide Area Network (WAN) is a network that covers a broad area. A user or network of users can connect to the Internet through an Internet Service Provider (ISP) who offers various methods to set up a client with an Internet connection. These methods can be automatic Dynamic Host Configuration Protocol (DHCP), Static Internet Protocol (IP), Point-to-Point Protocol over Ethernet (PPPoE), Point-to-Point Tunneling Protocol (PPTP), Layer 2 Tunneling Protocol (L2TP), Bridge, and Stateless Address Auto-configuration (SLAAC) for IPv6.

Configuring the right WAN settings on the router is necessary in order to properly set up Internet connection based on your network requirements and setup. Some WAN settings to be used on your router such as Usernames, Passwords, IP addresses, and DNS servers should be provided to you by your ISP.

In this scenario, the setup from the ISP requires the router to use PPPoE settings to connect to the Internet. This is a network protocol that creates a virtual tunnel from end point to end point. PPPoE requires login credentials to create the connection between the user and the ISP. This provides extra security since the user is not necessarily always connected to the Internet. PPPoE is used mainly with Digital Subscriber Line (DSL) services wherein users connect to a DSL modem over Ethernet.

Applicable Devices | Software Version

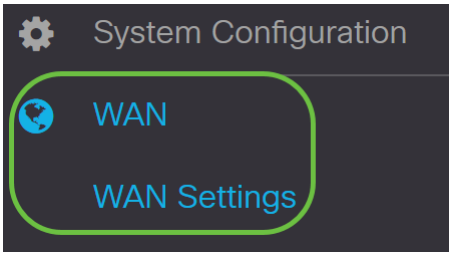
- RV340 | 1.0.01.17 (Download latest)
- RV340W | 1.0.01.17 (Download latest)
- RV345 | 1.0.01.17 (Download latest)
- RV345P | 1.0.01.17 (Download latest)

Configure PPPoE WAN Settings

The ISP provides the PPPoE parameters.

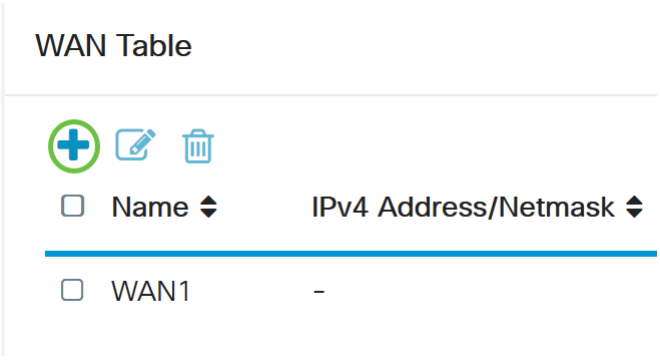
Step 1

Access the router web-based utility and choose **WAN > WAN Settings**.



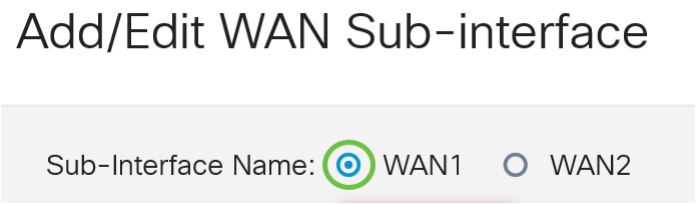
Step 2

In the *WAN Table*, click the **Add** button.



Step 3

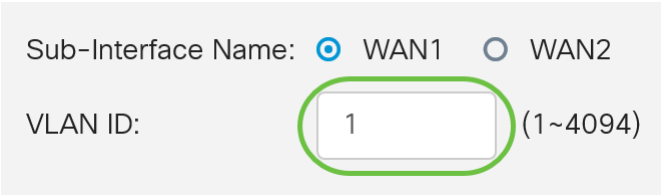
In the *Add/Edit WAN Sub-interface* window that appears, click on the WAN sub-interface that you want to configure.



In this example, **WAN1** is chosen. This is the default setting.

Step 4

Enter the *VLAN ID* in the field provided. In this example, **1** is used.



Step 5

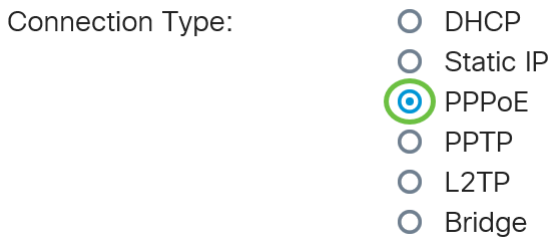
Click the tab of the connection that you are using.

In this example, **IPv4** is chosen. This is the default setting. If you are using *IPv6*, skip to IPv6.

IPv4

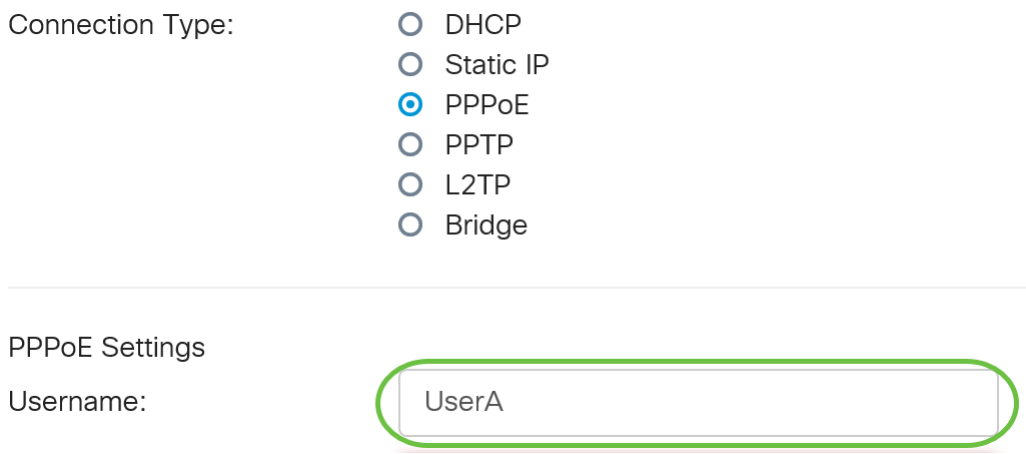
Step 6

Click on the **PPPoE** radio button to choose the *Connection Type*.



Step 7

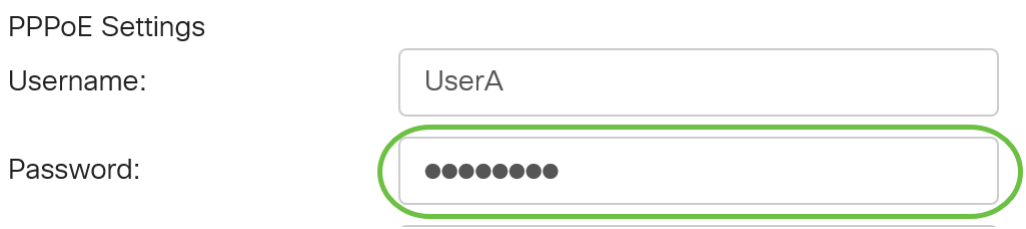
Under *PPPoE Settings*, enter the *Username* in the field provided.



In this example, **UserA** is used.

Step 8

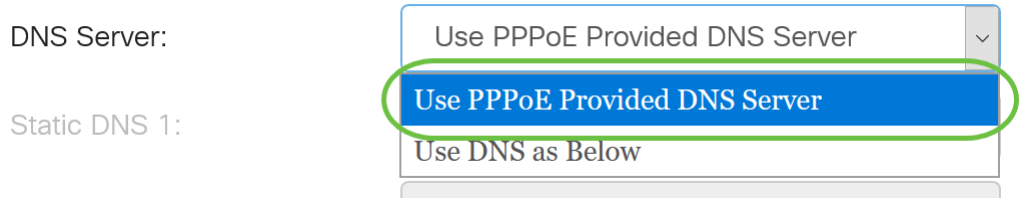
Enter the *Password* in the field provided.



Step 9

Choose the *DNS Server* from the drop-down menu. The options are:

- *Use PPPoE Provided DNS Server* - Allows the router to use the DNS Server provided by the PPPoE connection.
- *Use DNS as Below* - Allows the router to use the DNS Server addresses that you will specify in the fields below it.



In this example, **Use PPPoE Provided DNS Server** is chosen. This is the default setting.

Step 10

Click on a radio button to choose the Connect Mode. The options are:

- *Connect on Demand* - Allows Internet connection only when there is traffic. This option is ideal if the ISP charges based on how long the connection is active. If you choose this option, a maximum idle time should be specified. This would determine the amount of time that the connection can be idle before it is terminated.
- *Keep Alive* - This option allows the Internet connection to be active at all times.

In this example, **Keep Alive** is chosen. This is the default setting.

Step 11

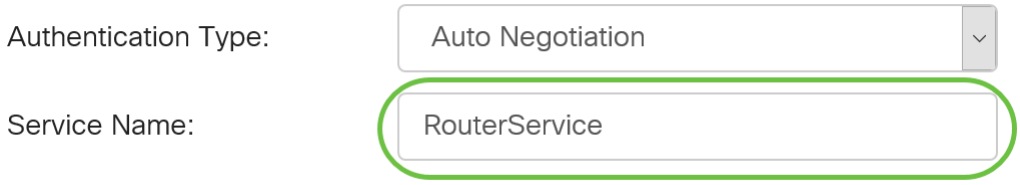
Choose the type of authentication from the *Authentication Type* drop-down menu. The options are:

- *Auto Negotiation* - This option allows the router to send queries to the ISP server to determine what authentication method is to be used. The router then sends the authentication credentials with the correct authentication type.
- *PAP* - Password Authentication Protocol is an authentication protocol that transmits unencrypted ASCII passwords over the network. This is an unsecure authentication method.
- *CHAP* - Challenge Handshake Authentication Protocol is an authentication protocol that verifies authentication through the use of a three-way handshake. This handshake takes place at the time of initial connection and at random intervals after initial connection.
- *MS-CHAP* - This is the Microsoft version of CHAP. MS-CHAP is in a format designed for compatibility with Windows NT products.
- *MS-CHAPv2* - This is an extension of MS-CHAP. MS-CHAPv2 is a stronger authentication method than MS-CHAP due to a stronger encryption key.

In this example, **Auto Negotiation** is chosen. This is the default setting.

Step 12

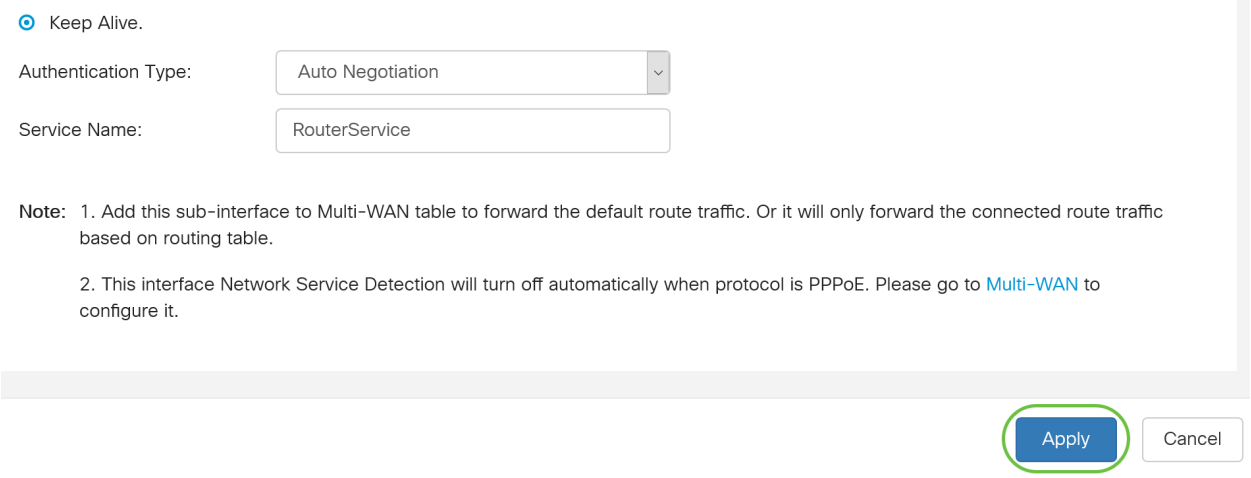
In the *Service Name* field, enter the name that the ISP uses to define the type of access for the router.



In this example, **RouterService** is used.

Step 13

Click **Apply**.



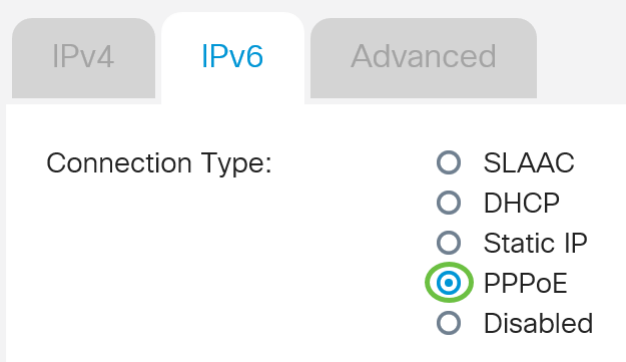
IPv6

Step 1

Click the **IPv6** tab.

Step 2

Click on the **PPPoE** radio button to choose the *Connection Type*.



Step 3

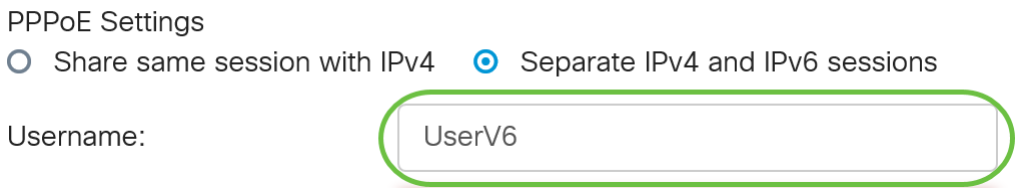
In the *PPPoE Settings* section, choose one of the following:

- *Share same session with IPv4* - Select *Share same session with IPv4* to re-use the same username/password configured in IPv4 PPPoE setting, and obtain IPv4 and IPv6 addresses from the same PPPoE session.
- *Separate IPv4 and IPv6 sessions* - Select *Separate IPv4 and IPv6 sessions* for a username/password setting that will be used only for an IPv6 PPPoE session.

In this example, **Separate IPv4 and IPv6 sessions** is chosen.

Step 4

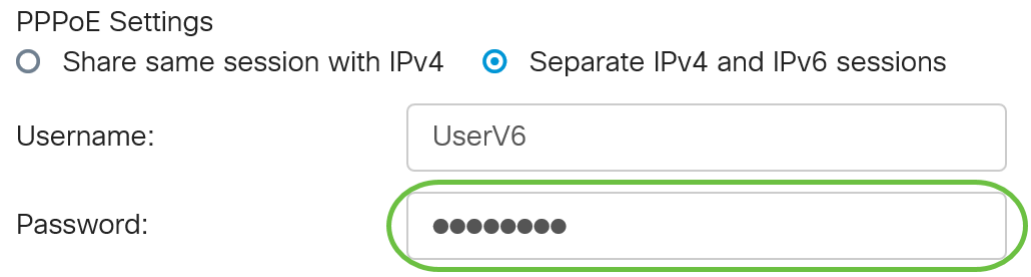
Under *PPPoE Settings*, enter the *Username* in the field provided.



In this example, **UserV6** is used.

Step 5

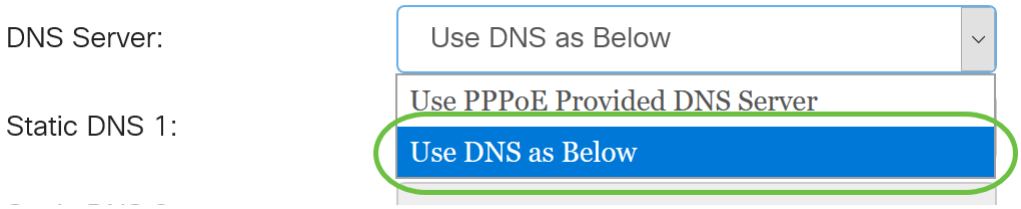
Enter the *Password* in the field provided.



Step 6

Click the *DNS Server* drop-down arrow and choose the *DNS server*. The options are:

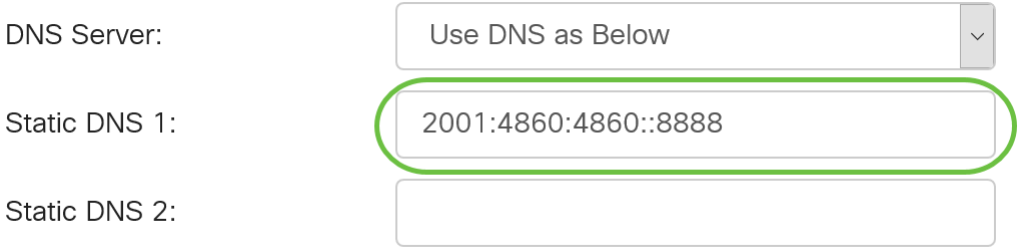
- *Use PPPoE Provided DNS Server* - Allows the router to use the DNS Server settings provided by the PPPoE connection.
- *Use DNS as Below* - Allows the router to use the DNS Server addresses that you will specify in the fields below it.



In this example, **Use DNS as Below** is chosen. This is the default setting.

Step 7

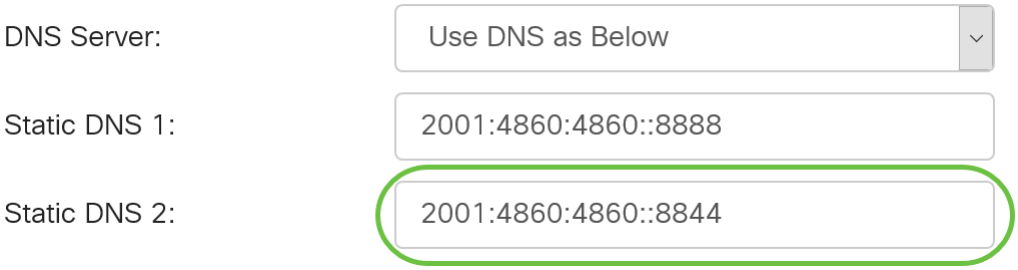
In the *Static DNS 1* field, enter the first DNS server address provided to you by your ISP.



In this example, **2001:4860:4860::8888** is used.

Step 8

(Optional) In the *Static DNS 2* field, enter the second DNS server address provided to you by your ISP.



In this example, **2001:4860:4860::8844** is used.

Step 9

Click on a radio button to choose the Connect Mode.

- *Connect on Demand* - Allows Internet connection only when there is traffic. This option is ideal if the ISP charges based on how long the connection is active. If you choose this option, a maximum idle time should be specified. This would determine the amount of time that the connection can be idle before it is terminated.
- *Keep Alive* - This option allows the Internet connection to be active at all times.

In this example, **Keep Alive** is chosen. This is the default setting.

Step 10

Choose the type of authentication from the *Authentication Type* drop-down menu. The options are:

- *Auto Negotiation* - This option allows the router to send queries to the ISP server to determine what authentication method is to be used. The router then sends the authentication credentials with the correct authentication type.
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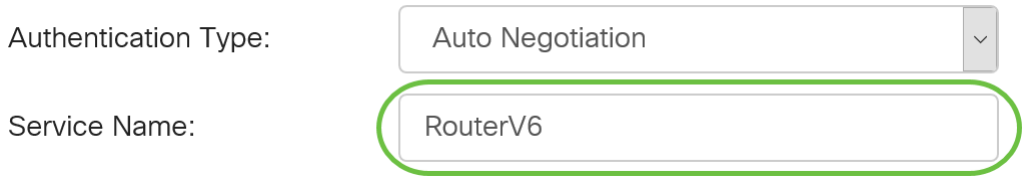
In this example, **Auto Negotiation** is chosen. This is the default setting.

Step 11

In the *Service Name* field, enter the name that the ISP uses to define the type of access for the

router.



In this example, **RouterV6** is used.

Step 12

(Optional) Check the **DHCP-PD** checkbox if you are using DHCPv6 prefix delegation.

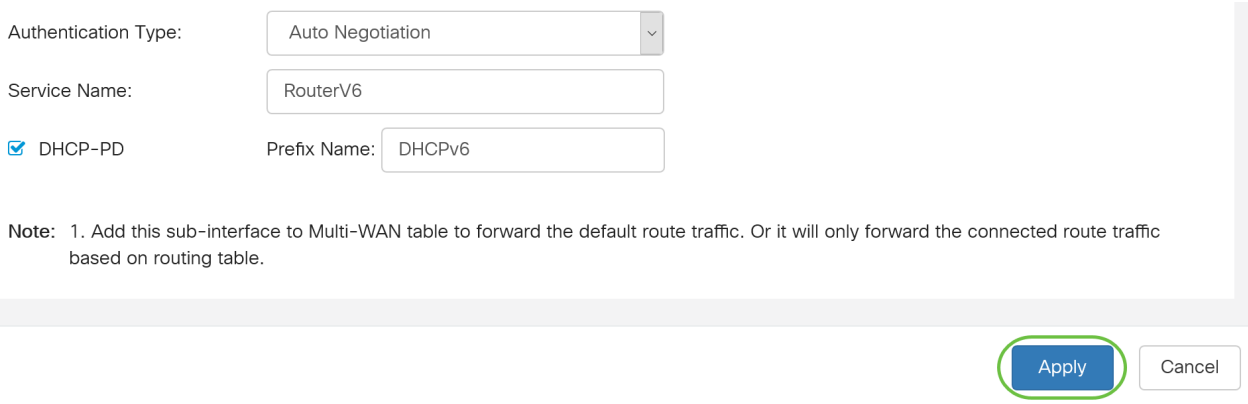
Step 13

(Optional) Enter the *Prefix Name* in the field provided.

In this example, **DHCPv6** is used.

Step 14

Click **Apply**.



You have now successfully set your RV34x Router WAN settings to PPPoE.

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