
How to Configure a PPPoE xDSL WAN Connection with an External DSL Modem

<https://campus.barracuda.com/doc/72516427/>

Follow these instructions if your WAN interface is provided using PPPoE. This protocol is typically used by ISPs that offer DSL. If your ISP provides a modem, connect the Ethernet port of the modem to a free network interface of your firewall. Use the Ethernet cable that is delivered with the modem. If a cable was not delivered with the modem, clarify if the modem must be connected to another device with a standard Ethernet cable or a crossover cable.

Step 1. Configure a PPPoE Connection

1. Go to **NETWORK > IP Configuration**.
2. In the **Dynamic Interface Configuration** section, click **Add Dynamic Network Interface**.
3. From the **Network Interface** list, select the network interface that the ISP modem is connected to on the firewall.
4. Enter a name for the new connection.
5. For **Network Protocol**, select **PPPoE**.
6. Set **Classification** to **WAN**.

Add Dynamic Network Interface ?

Name: Disable
Maximum 8 characters, no spaces allowed.

Network Protocol: DHCP PPPoE PPTP
Protocol for this interface.

Network Interface:
 Synchronous PPP
Select Yes to initiate a connection in synchronous mode

Username: No Auth
Username and password, as assigned by your ISP. Select No Auth if not required.

Password:

Metric:
Must be unique across all interfaces. The interface with the lowest value is used for outgoing traffic.

Use Assigned DNS: Yes No
Use the DNS server assigned by your ISP.

Use Dynamic DNS: Yes No
Use DynDNS (requires registration)

Classification: Unclassified Trusted DMZ
 WAN
How this interface is classified within your network. For ISP links, select WAN.

Connection Start Method: Automatic Manual
Select **Automatic** to start the link automatically. Select **Manual** to start and stop the link as needed by clicking **RUN** in the **NETWORK > IP Configuration > Dynamic Network Interfaces** section.

Health Check:
Type of test to run to verify health

Health Check Target:
Add IP addresses that can be reached via this dynamic interface. If the health check target becomes unavailable the Barracuda NextGen Firewall will attempt to re-establish the link.

7. Configure the remaining settings for your network requirements:

- **Synchronous PPP** - If your dial-in connection requires **Synchronous PPP** mode, select the check box. If you are not sure which mode to use, contact your ISP.
- **Metric** - For the initial configuration, keep the default **Metric** value of 100. In a multi-provider configuration, the firewall chooses the interface with the lowest metric for outgoing traffic.
- **Use Dynamic DNS** - You can make the firewall reachable with a unique identifier (DNS-resolvable name). For **Use Dynamic DNS**, select **Yes** and enter your DynDNS credentials. For more information on the DynDNS service, see <http://dyn.com/dns/>.
- **Connection Start Method** - You can manually start and stop the link. For **Connection Start Method**, select **Manual**. To control the link, go to the **Dynamic Network Interfaces** section of the **NETWORK > IP Configuration** page.


- **Health Check** – To monitor the Internet connection, select a type of **Health Check** to perform. Most ISPs support LCP to continuously monitor successful data transmission. However, you can use ICMP requests for monitoring the Internet connection. If you use ICMP for link monitoring, add a target IP address to the **Health Check Target** list.

8. Click **Save**.

Step 2. Perform a Network Activation

After you create or change basic network configurations such as routing, you must activate your new network configurations.

1. Scroll to the top of the page.
2. Click on the link in the warning message to activate the new network configuration.

 Some configuration changes made within IP Configuration, Routing or Bridging are not yet in effect. To execute the changes, [click here](#). This will cause a temporary interruption in network traffic. You may have to log into the Barracuda NextGen Firewall again.

Verify the Network Configuration

After the network activation with the configured PPPoE xDSL WAN you can see the entry in the table in the **Dynamic Interface Configuration** section.

DYNAMIC INTERFACE CONFIGURATION										Help	
Add Dynamic Network Interface											
Name	Type	Interface/Server	Default Route	Metric	Classification	Connection Start Method	Disable	Action			
ISP	DHCP	eth3	Yes	100	WAN	Automatic	<input type="checkbox"/>	Edit	<input type="button" value="v"/>	<input type="button" value="Run"/>	<input type="button" value="trash"/>
PPPoE	PPPoE	eth2		50	WAN	Automatic	<input type="checkbox"/>	Edit	<input type="button" value="v"/>	<input type="button" value="Run"/>	<input type="button" value="trash"/>

The PPPoE xDSL WAN connection is also shown in the Network Interface Configuration section.

NETWORK INTERFACE CONFIGURATION										Help
Interface Name	Application Link TCP Port	Type/Name	MAC Address	MTU	Speed	Use QoS	Duplex	Status	Action	
eth0			00:0c:29:9f:b2:54	1500	10000 Mbps	No	Full	Unknown	Edit	
eth1			00:0c:29:9f:b2:5e	1500		No	Unknown	Down	Edit	
ppp1	eth2	PPPoE [PPPOE]	00:0c:29:9f:b2:5e			No	Unknown	Unknown	Edit	
dhcp	eth3	ISP [DHCP]	00:0c:29:9f:b2:5e			No	Unknown	Unknown	Edit	

Figures

1. `configure_pppoe_connection.png`
2. `network_activation_ip_configuration.png`
3. `pppoe_xdsl_wan_connection_added_to_dynamic_interfaces.png`
4. `pppoe_xdsl_wan_connection_added.png`

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