

May 2012  
Revision 1

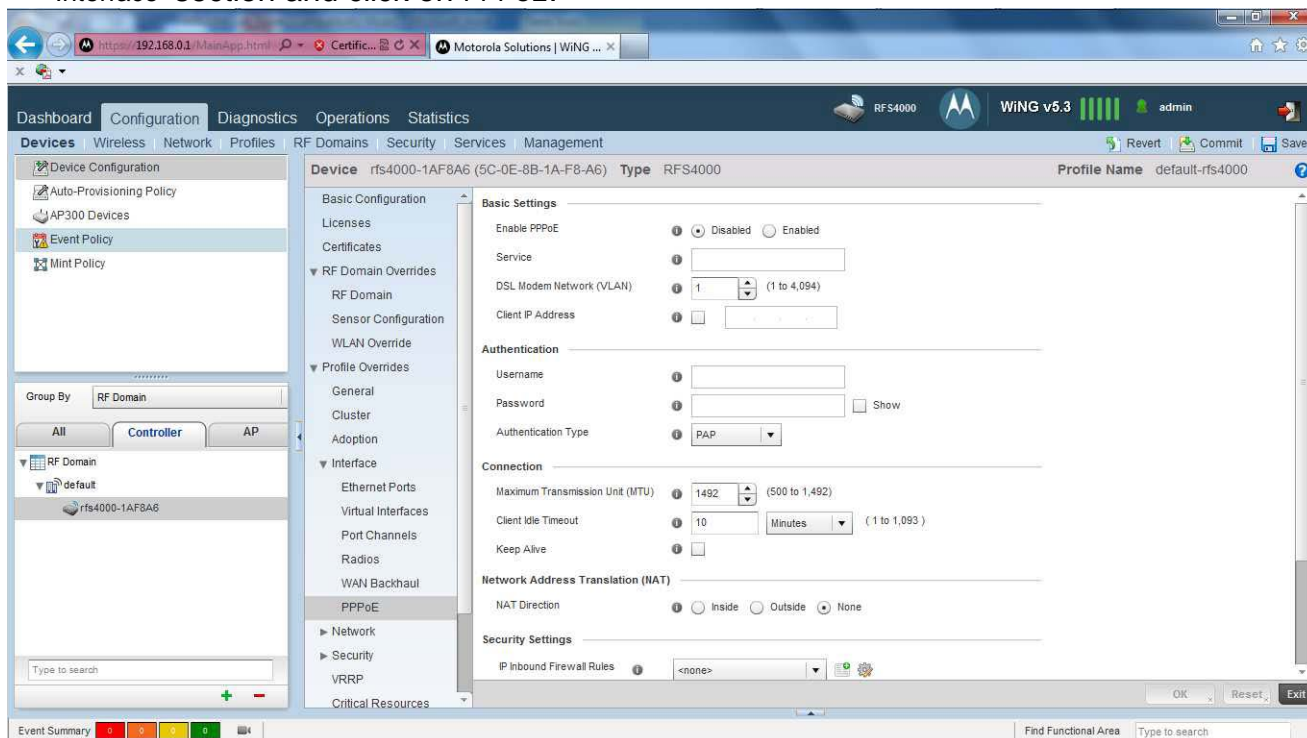
## 1. Overview

Many Internet service providers use the Point-to-Point Protocol over Ethernet (PPPoE) to provide Digital Subscriber Link (DSL) broadband Internet access. PPPoE uses a standard method of encryption, authentication, and compression specified by the Point-to-Point Protocol. With the release of WING 5.3, a PPPoE client was implemented. Implementing a PPPoE client allows a WiNG 5.X device to connect to the ISP over an Ethernet interface.

As with other interfaces, a PPPoE client interface can be defined within a Device Profile or directly to a device as a Device Override. In the command console, the PPPoE client uses the interface name `pppoe1`. The interface also supports Firewall and Crypto policies as well as NAT. Keep in mind that the interface configuration **MUST** include the VLAN ID the DSL modem is connected to.

## 1.1 Configuring PPPoE parameters

1. Log in to the WING 5 GUI of the controller. In the WiNG GUI of your Wireless Controller, select Configuration > Devices > [your controller name] > [Edit]. Then expand Interface section and click on PPPoE.



The PPPoE configuration page will appear:

(5C-0E-8B-1A-F8-A6) Type RFS4000

**Basic Settings**

Enable PPPoE  Disabled  Enabled

Service

DSL Modem Network (VLAN)  (1 to 4,094)

Client IP Address

**Authentication**

Username

Password   Show

Authentication Type

**Connection**

Maximum Transmission Unit (MTU)  (500 to 1,492)

Client Idle Timeout   (1 to 1,093)

Keep Alive

**Network Address Translation (NAT)**

NAT Direction  Inside  Outside  None

**Security Settings**

IP Inbound Firewall Rules

2. Begin entering all the relevant parameters. Under the Basic Settings section, choose the Enable PPPoE :: Enabled option. You can also enter the name of your DSL service provider in the Service field. Next enter the VLAN ID of your network into the DSL Modem Network (VLAN) field. Finally, enter the Client IP Address if your ISP assigns you a static IP address. Otherwise, leave it unchecked.
3. Under Authentication, put in your username and password in the appropriate fields and select your ISP's authentication type. There is a choice of CHAP, MSCHAP, mschap-v2, and PAP for authentication.

The screenshot shows a configuration interface with two main sections: Authentication and Connection. In the Authentication section, there are three fields: Username (containing 'YourUserName'), Password (containing 'YourPassword' with a 'Show' checkbox), and Authentication Type (a dropdown menu currently set to 'PAP'). In the Connection section, there are three fields: Maximum Transmission Unit (MTU) (with a range of 0 to 1,492), Client Idle Timeout (with a range of 1 to 1,093 minutes), and Keep Alive (with a checkbox). A dropdown menu is open for the Authentication Type field, showing the following options: None, CHAP, MSCHAP, mschap-v2, and PAP. The PAP option is currently selected and highlighted.

4. In Connection, you can choose to change the default Maximum Transmission Unit (MTU) parameter from 1492 to another value if you know the optimum setting. You can also choose to increase or decrease the Client Idle Timeout from the default of 10 minutes as well as enable Keep Alive to maintain connectivity.
5. You can configure the Network Address Translation to be Inside, Outside, or None. For the majority of network configurations, Outside will need to be selected.
6. Finally, you can choose the Crypto and Firewall policies to apply to the PPPoE interface.

### Example Configuration

**Basic Settings**

Enable PPPoE  Disabled  Enabled

Service

DSL Modem Network (VLAN)  (1 to 4,094)

Client IP Address

---

**Authentication**

Username

Password   Show

Authentication Type

---

**Connection**

Maximum Transmission Unit (MTU)  (500 to 1,492)

Client Idle Timeout  Minutes (1 to 1,093)

Keep Alive

---

**Network Address Translation (NAT)**

NAT Direction  Inside  Outside  None

---

**Authentication**

Username

Password   Show

Authentication Type

---

**Connection**

Maximum Transmission Unit (MTU)  (500 to 1,492)

Client Idle Timeout  Minutes (1 to 1,093)

Keep Alive

---

**Network Address Translation (NAT)**

NAT Direction  Inside  Outside  None

---

**Security Settings**

IP Inbound Firewall Rules

- When you're done, save your changes to the running configuration on the switch by clicking the Commit command at the upper right-hand corner of the main window:



- Save your changes to the startup configuration on the switch by clicking the Save command at the upper right-hand corner of the main window.

