

# PPPoE Plus Configuration

# Contents

<b>Chapter 1 PPPoE Plus Configuration.....</b>	<b>1</b>
1.1 Introduction to PPPoE.....	1
1.1.1 PPPoE packet.....	1
1.1.2 PPPoE Plus.....	1
1.2 PPPoE Plus Configuration.....	2
1.2.1 Enabling PPPoE Plus.....	2
1.2.2 Option Content Configuration.....	2
1.2.3 PPPoE Plus Monitor and Maintenance.....	2

# Chapter 1 PPPoE Plus Configuration

## 1.1 Introduction to PPPoE

The Point-to-Point Protocol over Ethernet (PPPoE) is a network protocol for encapsulating Point-to-Point Protocol (PPP) frames inside Ethernet frames. It is used mainly with DSL services where individual users connect to the DSL modem over Ethernet and in plain Metro Ethernet networks. It was developed by UUNET, Redback Networks and RouterWare and is available as an informational RFC 2516.

### 1.1.1 PPPoE packet

PPPoE protocol packet is as following:

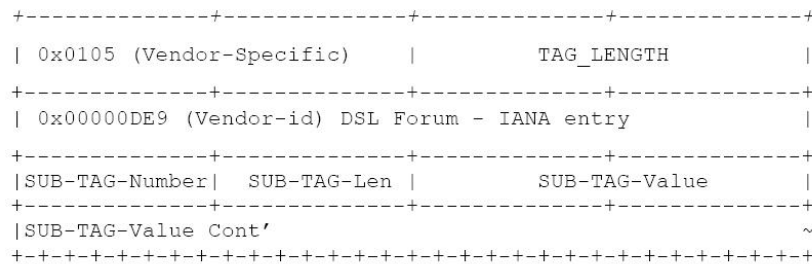


Figure 1-1 PPPoE packet

### 1.1.2 PPPoE Plus

PPPoE+ is short for PPPoE Intermediate agent which is proposed early in DSL FORM to define according to user line mark proportion of RFC 3046. The realization theory is similar to DHCP Option82 which makes some complement on PPPoE protocol packet. After accessing device get PPPoE protocol packet, insert user physical information for uplink direction, and strip it for downlink direction before transmission.

This function should work with PPPoE Plus server.

MyPower switch supports two kinds of PPPoE Plus packet:

- Standard mode:it contains user info:connected port, VLAN, MAC of local switch.

“0 0/0/0:4096.VID Switch MAC/0/0/slot/subslot/port”

- HuaWei mode:it can communicate with HuaWei BRAS. It contains user info:Connected port, VLAN, hostname and MAC of local switch.

“0 0/0/0:4096.VID Switch MAC/hostname/0/slot/sub-slot/port”

## 1.2 PPPoE Plus Configuration

### 1.2.1 Enabling PPPoE Plus

PPPoE packet will be forwarded to trust port. Trust port should be configured after enable this function. Generally, PPPoE plus will add option content to PPPoE packet. If the received PPPoE packet has contained option content, the handling strategy will be defined.

Table 1-1 Enabling PPPoE Plus

Operation	Command	Remarks
Enter global configuration mode	<b>configure terminal</b>	-
Enter interface configuration mode	<b>interface ethernet</b> device/slot/port	-
Enabling PPPoE Plus	<b>pppoeplus</b>	Required
Configuring trust port	<b>pppoeplus trust</b>	Required
Configure option strategy	<b>pppoeplus strategy { drop   keep   replace }</b>	Optional

### 1.2.2 Option Content Configuration

The option content need to be added before PPPoE packet forwarding out, the contents of this option can be determined by a variety of ways. Option content can be specified in interface configuration mode. If the content is not specified, it will be constructed according to configured rules. If pppoe plus type is self-defined, the format should also be specified.

Table 1-2 Option content configuration

Operation	Command	Remarks
Enter global configuration mode	<b>configure terminal</b>	-
Configure PPPoE Plus packet format	<b>pppoeplus type { huawei   standard   self-defined { circuit-id { &lt;string&gt;   vlan   port   switch-mac   hostname   client-mac }*   remote-id { &lt;string&gt;   switch-mac   hostname   client-mac }* }</b>	Optional
Configure format	<b>pppoeplus format { binary   ascii }</b>	Optional
Configure delimiter	<b>pppoeplus delimiter { colon   dot   slash   space }</b>	Optional
Enter interface configuration mode	<b>interface ethernet</b> device/slot/port	-
Specify circuit ID	<b>pppoeplus circuit-id</b> <i>string</i>	Optional

### 1.2.3 PPPoE Plus Monitor and Maintenance

After finishing above configuration, user can check the configurations by command below.

Table 1-3 PPPoE Plus monitor and maintenance

Operation	Command	Remarks
Display PPPoE Plus configuration	<b>show pppoeplus</b> [ <i>interface-list</i> ]	On any configuration

		mode
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