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Chapter 1 PoE Profile Configuration

1.1 Introduction to PoE Profile

On a large-sized network or a network with mobile users, to help network administrators to monitor the PoE features of the switch, Quidway S5600 Series Ethernet Switches have provided PoE Profile features.

Features of PoE Profile:

- Various PoE Profiles can be created. PoE policy configurations applicable to different user groups are stored in the corresponding PoE Profiles. These PoE Profiles can be applied to the ports used by the corresponding user groups.
- When users connect a PD device to the port that currently has PoE Profile stored, the switch will automatically apply the PoE configuration defined in the corresponding port's PoE Profile to the PD device.

1.2 PoE Profile Configuration

1.2.1 PoE Profile Configuration Tasks

The following table describes PoE Profile configuration tasks.

Table 1-1 PoE Profile Configuration

Operation		Command	Description
Enter system view		**system-view**	—
Create PoE Profile		**poe-profile** *profilename*	Required. Enter PoE Profile view while creating PoE Profile.
Configure the relevant features in PoE Profile	Enable power over Ethernet	**poe enable**	Required.
	Configure PoE mode for Ethernet ports	**poe mode** { **signal** | **spare** }	Optional. By default, PoE mode is set to be **signal**.
	Configure the PoE priority for Ethernet ports	**poe priority** { **critical** | **high** | **low** }	Optional. By default, PoE priority is set to **low**.
	Configure maximum power for Ethernet ports	**poe max-power** *max-power*	Optional. By default, maximum power is set to be 15,400 mW.

Operation	Command	Description
Quit system view	**quit**	—
Under system view, apply the existing PoE Profile configuration to the specified Ethernet port	**apply poe-profile** *profilename* **interface** *interface-type interface-number* [**to** *interface-type interface-number*]	Required. Users can decide whether to configure the settings under system view or port view.
	interface *interface-type interface-number*	
Enter Ethernet port view and apply the existing PoE Profile to ports	**apply poe-profile** *profilename*	
Display detailed configuration information on the existing PoE Profile	**display poe-profile** { **all-profile** | **interface** *interface-type interface-number* | name *profilename* }	You can use the **display** command under any view.

Note:

Various PoE features can be configured within one PoE Profile. The following holds while using the **apply poe-profile** command to apply a PoE Profile to a group of ports:

- The **display current-configuration** command can be used to indicate that the PoE Profile is being used properly, so long as one PoE feature in the PoE Profile is in proper use for a given port.
- If one or more features of the PoE Profile are not used properly for a given port, the terminal will show clearly which feature on what port is not used properly.

Caution:

- PoE Profile configuration is a global configuration, and applies synchronously in the IRF system.
- Combination of Unit creates a new Fabric. In the newly created Fabric, the PoE Profile configuration of the Unit with the smallest Unit ID number will become the PoE Profile configuration for the Fabric currently in use.
-
- Split of Fabric results in many new Fabrics. In each newly created Fabric, the PoE Profile configuration of each Unit remains the same as it was before the split.

1.2.2 PoE Profile Configuration Example

I. Network requirements

Ethernent1/0/1 through GigabitEthernet1/0/10 ports of the S5628P-PWR switch are classified as type A group users, who have the following requirements:

- All ports in use can enable PoE function;
- Use data cable to supply power;
- The PoE priority for GigabitEthernet1/0/1 through GigabitEthernet1/0/5 ports is Critical, whereas The PoE priority for GigabitEthernet1/0/6 through GigabitEthernet1/0/10 is High.
- The maximum power for GigabitEthernet1/0/1 through GigabitEthernet1/0/5 ports is 3000mW, whereas the maximum power for GigabitEthernet1/0/6 through GigabitEthernet1/0/10 is 15,400mW.

Based on the above requirements, two PoE Profiles are made for type A group users.

- Use PoE Profile1 for GigabitEthernet1/0/1 through GigabitEthernet1/0/5 ports;
- Use PoE Profile2 for GigabitEthernet1/0/6 through GigabitEthernet1/0/10 ports.

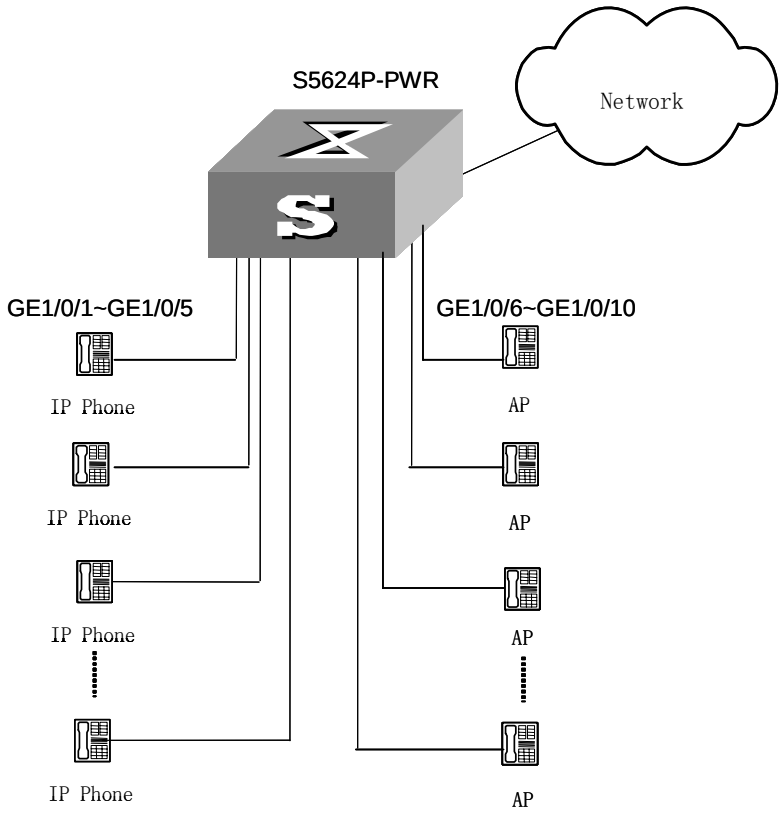

Figure 1-1 PoE Profile application

II. Configuration procedures

Create Profile 1, and enter PoE Profile view.

```
<Quidway> system-view
[Quidway] poe-profile Profile1
```

In Profile 1, add the PoE policy configuration applicable to GigabitEthernet1/0/1 through GigabitEthernet1/0/5 ports for type A group users.

```
[Quidway-poe-profile-Profile1] poe enable
[Quidway-poe-profile-Profile1] poe mode signal
[Quidway-poe-profile-Profile1] poe priority critical
[Quidway-poe-profile-Profile1] poe max-power 3000
[Quidway-poe-profile-Profile1] quit
```

Display detailed configuration information for Profile 1.

```
[Quidway] display poe-profile name Profile1
```

Create Profile 2, and enter poe-profile view.

```
[Quidway] poe-profile profile2
```

In Profile 2, add the PoE policy configuration applicable to GigabitEthernet1/0/6 through GigabitEthernet1/0/10 ports for type A group users.

```
[Quidway-poe-profile-Profile2] poe enable
[Quidway-poe-profile-Profile2] poe mode signal
[Quidway-poe-profile-Profile2] poe priority high
[Quidway-poe-profile-Profile2] poe max-power 15400
[Quidway-poe-profile-Profile2] quit
```

Display detailed configuration information for Profile 2.

```
[Quidway] display poe-profile name profile2
```

Apply the configured Profile 1 to GigabitEthernet1/0/1 through GigabitEthernet1/0/5 ports.

```
[Quidway] apply poe-profile profile1 interface GigabitEthernet1/0/1 to GigabitEthernet1/0/5
```

Apply the configured Profile 2 to GigabitEthernet1/0/6 through GigabitEthernet1/0/10 ports.

```
[Quidway] apply poe-profile profile2 interface GigabitEthernet1/0/6 to GigabitEthernet1/0/10
```

Chapter 2 PoE Profile Configuration Commands

2.1 PoE Profile Configuration Commands

2.1.1 poe-profile

Syntax

poe-profile *profilename*

undo poe-profile *profilename*

View

System view

Parameter

profilename: Name of PoE Profile, a string with 1 to 15 characters, beginning with English letters (in upper or lower cases), and cannot be reserved keywords like **all**, **interface**, **user**, **undo**, and **mode.**

Description

Use the **poe-profile** command to create a PoE Profile.

Use the **undo poe-profile** command to delete an existing PoE Profile.

The maximum number of PoE Profiles that can be configured for an S5600 switch is 256.

Example

Create a PoE Profile by the name of profile-test.

```
<Quidway> system-view
System View: return to User View with Ctrl+Z.
[Quidway] poe-profile profile-test
```

2.1.2 apply poe-profile

Syntax

Under system view use the following commands:

apply poe-profile *profilename* **interface** *interface-type interface-number* [**to** *interface-type interface-number*]

undo apply poe-profile *profilename* **interface** *interface-type interface-number* [**to** *interface-type interface-number*]

Under Ethernet port view use the following commands:

apply poe-profile *profilename*

undo apply poe-profile *profilename*

View

System view

Parameter

profilename: Name of PoE Profile, a string with 1 to 15 characters, and cannot be reserved keywords like **all**, **interface**, **user**, **undo**, and **mode**.

interface-type interface-number: *interface-type* indicates type of the interface, *interface-number* specifies the port ID.

Description

Use the **apply poe-profile** command to apply the existing PoE Profile configuration to the specified Ethernet port.

Use the **undo apply poe-profile** command to delete the PoE Profile configuration for the specified Ethernet port.

Only one PoE Profile can be in use at any time for each Ethernet port.

Note:

Various PoE features can be configured within one PoE Profile. The following holds while using the **apply poe-profile** command to apply a PoE Profile to a group of ports.

- The **display current-configuration** command can be used to indicate that the PoE Profile is being used properly, so long as one PoE feature in the PoE Profile is in proper use for a given port.
- If one or more features of the PoE Profile are not used properly in a given port, the terminal will show clearly exactly which feature on what port is not used properly.

Example

Apply the existing PoE Profile (profile-test) configuration to GigabitEthernet1/0/1 through GigabitEthernet1/0/9 ports of the switch.

```
<Quidway> system-view
System View: return to User View with Ctrl+Z.
[Quidway] apply poe-profile profile-test interface GigabitEthernet1/0/1 to
GigabitEthernet1/0/9
```

2.1.3 display poe-profile

Syntax

display poe-profile { **all-profile** | **interface** *interface-type interface-number* | name *profilename* }

View

Any view

Parameter

interface-type interface-number: *interface-type* indicates type of the interface, *interface-number* specifies the port ID.

profilename: Name of the PoE Profile to be displayed, a string with 1 to 15 characters, and cannot be reserved keywords like **all**, **interface**, **user**, **undo**, **user-based**, **port-based**.

Description

Use the **display poe-profile** command to display detailed configuration information of the created PoE Profile for a switch.

Example

Display detailed configuration information for the PoE Profile by the name of profile-test.

```
<Quidway> system-view
System View: return to User View with Ctrl+Z.
[Quidway] display poe-profile name profile-test
```