1 CWMP Commands

Command	Function
acs password	Configure an ACS password for CWMP connection.
acs url	Configure an ACS URL for CWMP connection.
acs username	Configure an ACS username for CWMP connection.
cpe back-up	Enable the backup and restoration function of the CPE main program or configuration file.
cpe inform	Enable the periodic Inform function of the CPE.
cpe source interface	Obtain an IP address through the specified interface and configure a CPE URL for CWMP connection. based on the IP address.
cpe password	Configure a CPE password for CWMP connection.
cpe url	Configure a CPE URL for CWMP connection.
cpe username	Configure a CPE username for CWMP connection.
cwmp	Enable the CWMP function and enter the CWMP configuration mode.
disable download	Disable the management function of receiving any main program and configuration file delivered by the ACS.
disable upload	Disable the management function of uploading any main program, configuration file and log file to the ACS.
show cwmp configuration	Display the current configuration of the CWMP function.
show cwmp status	Display the current running status of CWMP.
timer cpe-timeout	Configure the CPE timeout time in the case of no ACS response.

1.1 acs password

Function

Run the **acs password** command to configure an ACS password for CWMP connection.

Run the **no** form of this command to remove this configuration.

No ACS password is configured for CWMP connection by default.

Syntax

acs password { **0** *encryption-type* | **7** *encrypted-password* | *password* }

no acs password

Parameter Description

0 *encryption-type*: Specifies a plaintext password as the password encryption type.

7 *encrypted-password*: Specifies a cyphertext string. The cyphertext encrypted using encryption algorithms must be legal, for example, it must be an even number and less than or equal to 256 characters.

password: ACS password for CWMP connection.

Command Modes

CWMP configuration mode

Default Level

1

Usage Guidelines

When an ACS password is configured for CWMP connection, the encryption type does not need to be entered. If an encrypted password is copied and pasted, the encryption type must be entered. A valid password should meet the following format requirements:

- Contain letters or digits.

- Trailing and middle spaces are a part of the password.

Examples

The following example sets the ACS password for CWMP connection to 123user_1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# cwmp
Hostname(config-cwmp)# acs password 123user_1
```

Notifications

If the entered password is cyphertext and it is not an even number or its length is less than 2 characters or more than 254 characters, the following notification will be displayed:

```
Invalid Encrypted Password
```

If the entered password is plaintext and longer than 126 characters, the following notification will be displayed:

```
The Length of ACS's Password is Too Long
```

If the entered password is plaintext and contains invalid characters, the following notification will be displayed:

```
Password String Include Invalid Characters!
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.2   acs url

Function

Run the **acs url** command to configure an ACS URL for CWMP connection.

Run the **no** form of this command to remove this configuration.

No ACS URL is configured for CWMP connection by default.

Syntax

acs url *url*

no acs url

Parameter Description

url: ACS URL for CWMP connection.

Command Modes

CWMP configuration mode

Default Level

1

Usage Guidelines

If the ACS URL is not manually configured but a dynamic ACS URL is obtained through DHCP, this dynamic ACS URL is used to initiate a connection to the ACS. Ensure that UDP port 7547 on the CPE is unused. This port is used for Simple Traversal of UDP over NATs (STUN) port listening. The ACS URL must meet the following format requirements:

- Follow the format of http://ip[:port]/path.
- Contain 255 characters at most.

Examples

The following example sets the ACS URL for connection with the CPE to http://10.10.10.1:7547/acs.

```
Hostname> enable
```

```
Hostname# configure terminal
Hostname(config)# cwmp
Hostname(config-cwmp)# acs url http://10.10.10.1:7547/acs
```

Notifications

If the ACS URL is null, the following notification will be displayed:

```
input acs attribute parameter is null
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.3 acs username

Function

Run the **acs username** command to configure an ACS username for CWMP connection.

Run the **no** form of this command to remove this configuration.

No ACS username is configured for CWMP connection by default.

Syntax

acs username *username*

no acs username

Parameter Description

username: ACS username for CWMP connection.

Command Modes

CWMP configuration mode

Default Level

1

Usage Guidelines

N/A

Examples

The following example sets the ACS username for CWMP connection to **admin**.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# cwmp
```

```
Hostname(config-cwmp)# acs username admin
```

Notifications

If the ACS username is null, the following notification will be displayed:

```
input acs attribute parameter is null
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.4   cpe back-up

Function

Run the **cpe back-up** command to enable the backup and restoration function of the CPE main program or configuration file.

Run the **no** form of this command to disable this function.

The backup and restoration function of the main program or configuration file is disabled by default.

Syntax

cpe back-up [**delay-time** *time*]

no cpe back-up

Parameter Description

time: Delay for backup and restoration of the CPE main program or configuration file, in seconds. The value range is from 30 to 1000, and the default value is **60**.

Command Modes

CWMP configuration mode

Default Level

1

Usage Guidelines

After the backup and restoration of the main program or configuration file is enabled on the CPE in the case of an abnormality, the CPE can restore its abnormal main program or configuration file to their previous states in time when the CPE fails to connect to the ACS and breaks away from the management center after the main program or configuration file upgrade. The ACS is restored to manage the CPE. This abnormality is generally caused by delivery of an incorrect main program version or configuration file.

Examples

The following example configures the backup and restoration function of the CPE main program or configuration file.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# cwmp
Hostname(config-cwmp)# cpe back-up
```

Common Errors

N/A

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.5   cpe inform

Function

Run the **cpe inform** command to enable the periodic Inform function of the CPE.

Run the **no** form of this command to disable this function.

The periodic Inform function of the CPE is disabled by default.

Syntax

cpe inform [**interval** *interval*] [**start-time** *hh:mm:ss MM/DD/YY*]

no cpe inform

Parameter Description

interval *interval*: Configures the periodic Inform interval of the CPE, in seconds. The value range is from 30 to 3600, and the default value is **600**.

start-time *hh:mm:ss MM/DD/YY*: Configures the start time of periodic Inform. *hh* indicates hour. *mm* indicates minute. *ss* indicates second. *MM* indicates month. *DD* indicates day. *YY* indicates year.

Command Modes

CWMP configuration mode

Default Level

1

Usage Guidelines

● The shorter the CPE periodic Inform interval is, the more timely the ACS traces the latest status of the

CPE. More CPE-ACS sessions consume more resources. Users must configure a proper interval based on the current network status and ACS performance configuration.

● If no Inform start time is configured, from the Inform enabling time, Inform is performed once every default Inform interval.

● If the Inform start time is configured, periodic Inform starts at the specified start time. For example, if the Inform interval is set to 60 seconds and the start time is 12:00 a.m. next day, periodic Inform will start at 12:00 a.m. next day and be performed once every 60 seconds.

Examples

The following example sets the periodic Inform interval of the CPE to 60 seconds.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# cwmp
Hostname(config-cwmp)# cpe inform interval 60
```

Common Errors

N/A

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.6   cpe source interface

Function

Run the **cpe source interface** command to obtain an IP address through the specified interface and configure a CPE URL for CWMP connection. based on the IP address.

Run the **no** form of this command to remove this configuration.

No IP address is obtained through the specified interface and used to configure a CPE URL for CWMP connection by default.

Syntax

cpe source interface *interface-type interface-number* [**port** *port-number*]

no cpe source interface

Parameter Description

interface-type interface-number: Type and number of the port of CPE URL for CWMP connection.

port *port-number*: Specifies a port number. The value range is from 1 to 65535, and the default value is **7547**.

Command Modes

CWMP configuration mode

Default Level

14

Usage Guidelines

- This command and the **cpe url** command cannot be configured at the same time. If either command is configured, the other command must not be configured or must be deleted. If the two commands are not configured, the CPE automatically selects its URL based on the ACS URL.

- The interface name of the CPE must be the full name of the interface and can be automatically filled when a CLI command is entered.

- If no port ID is configured, the default port ID 7547 is used.

Examples

The following example configures a CPE URL for CWMP connection and sets the CPE port ID to 7547 on GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# cwmp
Hostname(config-cwmp)# cpe source interface GigabitEthernet 0/1 port 7547
```

Notifications

If the name of the entered interface is incorrect, the following notification will be displayed:

```
% Invalid input detected at '^' marker.
```

If an IP address is configured using the **cpe url** command, the following notification will be displayed:

```
Cpe url have been set by command cpe url, please clear it.
```

Common Errors

N/A

Platform Description

If this command is configured on the CPE, running the **show cwmp configuration** command displays one more record, which is the full name of the interface. If this command is not configured on the CPE, running the **show cwmp configuration** command displays no information.

```
Hostname> enable
Hostname# show cwmp configuration
CWMP status                   : enable
ACS URL                       :
http://118.190.126.198/service/acs/ABC0020176681
ACS username                  :
ACS password                  :
CPE URL                       : http://192.168.197.106:7547/ (DYNAMIC)
CPE source interface name     : GigabitEthernet 0/1
```

```
CPE username                  :
CPE password                  :
CPE inform status             : enable
CPE inform interval           : 180s
CPE inform start-time         : 0:0:0 0 0 0
CPE wait timeout              : 30s
CPE download status           : enable
CPE upload status             : enable
CPE back up status            : enable
CPE back up delay time        : 60s
CPE STUN port-adaptive        : disable
CPE STUN port                 : 3478
CPE STUN max-period           : 60s
CPE STUN min-period           : 20s
```

Related Commands

N/A

1.7 cpe password

Function

Run the **cpe password** command to configure a CPE password for CWMP connection.

Run the **no** form of this command to remove this configuration.

No CPE password is configured for CWMP connection by default.

Syntax

cpe password { **0** *encryption-type* | **7** *encrypted-password* | *password* }

no cpe password

Parameter Description

0 *encryption-type*: Specifies a plaintext password as the password encryption type.

7 *encrypted-password*: Specifies a cyphertext string. The cyphertext encrypted using encryption algorithms must be legal, for example, it must be an even number and less than or equal to 256 characters.

password: CPE password for CWMP connection.

Command Modes

CWMP configuration mode

Default Level

1

Usage Guidelines

When a CPE password is configured for CWMP connection, the encryption type does not need to be entered. If an encrypted password is copied and pasted, the encryption type must be entered. A valid password should meet the following format requirements:

- Contain 1 to 26 characters including uppercase letters, lowercase letters, and digits.

- Leading spaces will be ignored, while the trailing and middle spaces are valid.

Examples

The following example sets the CPE password for CWMP connection to 123user_1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# cwmp
Hostname(config-cwmp)# cpe password 123user_1
```

Notifications

If the entered password is cyphertext and it is not an even number or its length is less than 2 characters or not more than 254 characters, the following notification will be displayed:

```
Invalid Encrypted Password
```

If the entered password is plaintext and longer than 126 characters, the following notification will be displayed:

```
The Length of ACS's Password is Too Long
```

If the entered password is plaintext and contains illegal characters, the following notification will be displayed:

```
Password String Include Invalid Characters!
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.8   cpe url

Function

Run the **CPE url** command to configure a CPE URL for CWMP connection.

Run the **no** form of this command to remove this configuration.

No CPE URL is configured for CWMP connection by default.

Syntax

cpe url *url*

no cpe url

Parameter Description

url: CPE URL for CWMP connection.

Command Modes

CWMP configuration mode

Default Level

1

Usage Guidelines

If the CPE URL is not manually configured, a CPE URL is automatically selected based on the ACS URL. The CPE URL format must meet the following requirements:

o   Follow the http://ip [: port]/ format.

o   Contain 255 characters at most.

Examples

The following example sets the CPE URL for CWMP connection to http://10.10.10.1:7547/.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# cwmp
Hostname(config-cwmp)# cpe url http://10.10.10.1:7547/
```

Notifications

If the CPE URL is null, the following notification will be displayed:

```
input CPE attribute parameter is null
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.9   cpe username

Function

Run the **cpe username** command to configure a CPE username for CWMP connection.

Run the **no** form of this command to remove this configuration.

No CPE username is configured for CWMP connection by default.

Syntax

cpe username *username*

no cpe username

Parameter Description

username: CPE username for CWMP connection.

Command Modes

CWMP configuration mode

Default Level

1

Usage Guidelines

N/A

Examples

The following example sets the CPE username for CWMP connection to **admin**.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# cwmp
Hostname(config-cwmp)# cpe username admin
```

Notifications

If the CPE username is null, the following notification will be displayed:

```
input acs attribute parameter is null
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.10   cwmp

Function

Run the **cwmp** command to enable the CWMP function and enter the CWMP configuration mode.

Run the **no** form of this command to disable this function.

The CWMP function is disabled by default.

Syntax

cwmp

no cwmp

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

1

Usage Guidelines

N/A

Examples

The following example enables the CWMP function.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# cwmp
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.11   disable download

Function

Run the **disable download** command to disable the management function of receiving any main program and configuration file delivered by the ACS.

Run the **no** form of this command to remove this configuration.

The management function of receiving any main program and configuration file delivered by the ACS is enabled by default.

Syntax

disable download

no disable download

Parameter Description

N/A

Command Modes

CWMP configuration mode

Default Level

1

Usage Guidelines

This command does not act on configuration script files. The configuration scripts can still be executed even if this function is disabled.

Examples

The following example disables the management function of receiving any main program and configuration file delivered by the ACS.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# cwmp
Hostname(config-cwmp)# disable download
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.12   disable upload

Function

Run the **disable upload** command to disable the management function of uploading any main program, configuration file and log file to the ACS.

Run the **no** form of this command to remove this configuration.

The management function of uploading any main program, configuration file and log file to the ACS is enabled by default.

Syntax

disable upload

no disable upload

Parameter Description

N/A

Command Modes

CWMP configuration mode

Default Level

1

Usage Guidelines

N/A

Examples

The following example disables the management function of uploading any main program, configuration file and log file to the ACS.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# cwmp
Hostname(config-cwmp)# disable upload
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.13   show cwmp configuration

Function

Run the **show cwmp configuration** command to display the current configuration of the CWMP function.

Syntax

show cwmp configuration

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

1

Usage Guidelines

N/A

Examples

The following example displays the current configuration of the CWMP function.

```
Hostname> enable
```

```
Hostname# show cwmp configuration
CWMP Status                   : enable
ACS URL                       : http://www.Hostname.com.cn/acs
ACS username                  : admin
ACS password                  : ******
CPE source interface name     :
CPE URL                       : http://10.10.10.2:7547/
CPE username                  : Hostname
CPE password                  : ******
CPE inform status             : disable
CPE inform interval           : 60s
CPE inform start time         : 0:0:0 0 0 0
CPE wait timeout              : 50s
CPE download status           : enable
CPE upload status             : enable
CPE back up status            : enable
CPE back up delay time        : 60s
CPE STUN port-adaptive        : disable
CPE STUN probe nat agingtime  : disable
CPE STUN port                 : 3478
CPE STUN max-period           : 60s
CPE STUN min-period           : 20s
```

Table 1-1Output Fields of the show cwmp configuration Command

Field	Description
CWMP Status	Enabling status of the CWMP function
ACS URL	ACS URL for CWMP connection
ACS username	ACS username for CWMP connection
ACS password	ACS password for CWMP connection
CPE source interface name	CPE URL port for CWMP connection
CPE URL	CPE URL for CWMP connection
CPE username	CPE username for CWMP connection
CPE password	CPE password for CWMP connection
CPE inform status	Periodic Inform status of CPE
CPE inform interval	Periodic Inform interval of CPE
CPE wait timeout	CPE session timeout time
CPE inform start time	Start time of periodic Inform of CPE
CPE download status	Whether to download any main program and configuration file from the ACS

Field	Description
CPE upload status	Whether to upload any main program and configuration file and log file to the ACS
CPE back up status	Whether to enable restoration of the main program and configuration file
CPE back up delay time	Delay for restoration of the main program and configuration file
CPE STUN port-adaptive	Whether to enable STUN port auto-adaption: ● **disable**: Disables the STUN port auto-adaption function. ● **enable**: Enables the STUN port auto-adaption function.
CPE STUN probe nat agingtime	Whether to enable the STUN NAT age time probe function: ● **disable**: Disables the STUN NAT age time probe function. ● **enable**: Enables the STUN NAT age time probe function.
CPE STUN port	STUN server port
CPE STUN max-period	Maximum keep-alive time of STUN packets
CPE STUN min-period	Minimum keep-alive time of STUN packets

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.14   show cwmp status

Function

Run the **show cwmp status** command to display the current running status of CWMP.

Syntax

show cwmp status

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

1

Usage Guidelines

N/A

Examples

The following example displays the current running status of CWMP.

```
Hostname> enable
Hostname# show cwmp status
CWMP Status                    : enable
Session status                 : Close
Last success session           : Unknown
Last success session time      : Thu Jan  1 00:00:00 1970
Last fail session              : Unknown
Last fail session time         : Thu Jan  1 00:00:00 1970
Session retry times            : 0
```

Table 1-1Output Fields of the show cwmp status Command

Field	Description
CWMP Status	Enabling status of the CWMP function
Session status	Status of the current session between the CPE and ACS
Last success session	Type of the last successful session
Last success session time	End time of the last successful session
Last fail session	Type of the last failed session
Last fail session time	End time of the last failed session
Session retry times	Retry times of the current session

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.15   timer cpe-timeout

Function

Run the **timer cpe-timeout** command to configure the CPE timeout time in the case of no ACS response.

Run the **no** form of this command to remove this configuration.

The default CPE timeout time is **30** seconds in the case of no ACS response.

Syntax

timer cpe-timeout *tiemout*

no timer cpe-timeout

Parameter Description

timeout: Timeout time, in seconds. The value range is from 10 to 600.

Command Modes

CWMP configuration mode

Default Level

1

Usage Guidelines

This command is used to configure the CPE timeout time in the case of no ACS response. This CPE timeout time refers to the maximum delay of a session when the CPE fails to receive ACS response due to an exception, for example, network disconnection.

Examples

The following example sets the CPE timeout time to 50 seconds in the case of no ACS response.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# cwmp
Hostname(config-cwmp)# timer cpe-timeout 50
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A