Contents

FTP commands

The device supports the FIPS mode that complies with NIST FIPS 140-2 requirements. Support for features, commands, and parameters might differ in FIPS mode and non-FIPS mode. For more information about FIPS mode, see *Security Configuration Guide*.

FTP is not supported in FIPS mode.

FTP server commands

display ftp-server

Use **display ftp-server** to display FTP server configuration and status information.

Syntax

display ftp-server

Views

Any view

Predefined user roles

network-admin

network-operator

Examples

Display FTP server configuration and status information.

```
<Sysname> display ftp-server
FTP server is running.
User count:                     1
Idle-timeout timer (in minutes):  30
```

Table 1 Command output

Field	Description
User count	Number of the current logged-in users.
Idle-timeout timer (in minutes)	If no packet is exchanged between the FTP server and client during this period, the FTP connection is closed.

Related commands

ftp server enable

ftp timeout

display ftp-user

Use **display ftp-user** to display detailed information about online FTP users.

Syntax

display ftp-user

Views

Any view

Predefined user roles

network-admin

network-operator

Examples

Display detailed information about online FTP users.

```
<Sysname> display ftp-user
UserName    HostIP          Port    HomeDir
root        192.168.20.184  46539   flash:
```

A field value is wrapped if its length exceeds the limit. The segments are left justified.

The following are the length limits for fields:

- **UserName**—10 characters.
- **HostIP**—15 characters.
- **HomeDir**—37 characters.

```
<Sysname> display ftp-user
UserName    HostIP          Port    HomeDir
user2       2000:2000:2000: 1499    flash:/user2
            2000:2000:2000:
            2000:2000
administra  100.100.100.100 10001   flash:/123456789/123456789/123456789/
tor                                 123456789/123456789/123456789/1234567
                                    89/123456789
```

Table 2 Command output

Field	Description
UserName	Name of the user.
HostIP	IP address of the user.
Port	Port number of the user.
HomeDir	Authorized directory for the user.

free ftp user

Use **free ftp user** to manually release the FTP connections established by using a specific user account.

Syntax

free ftp user *username*

Views

User view

Predefined user roles

network-admin

Parameters

username: Specifies a username. To display online FTP users, execute the **display ftp-user** command.

Examples

Release the FTP connections established by using user account **ftpuser**.

```
<Sysname> free ftp user ftpuser
Are you sure to free FTP connection? [Y/N]:y
<Sysname>
```

free ftp user-ip

Use **free ftp user-ip** to manually release the FTP connections established from a specific IPv4 address.

Syntax

free ftp user-ip *ip-address* [**port** *port*]

Views

User view

Predefined user roles

network-admin

Parameters

ip-address: Specifies the source IP address of an FTP connection. To view the source IP addresses of FTP connections, execute the **display ftp-user** command.

port *port*: Specifies the source port of an FTP connection. To view the source ports of FTP connections, execute the **display ftp-user** command.

Examples

Release the FTP connections established from the IP address 192.168.20.184.

```
<Sysname> free ftp user-ip 192.168.20.184
Are you sure to free FTP connection? [Y/N]:y
<Sysname>
```

free ftp user-ip ipv6

Use **free ftp user-ip ipv6 to** manually release the FTP connections established from a specific IPv6 address.

Syntax

free ftp user-ip ipv6 *ipv6-address* [**port** *port*]

Views

User view

Predefined user roles

network-admin

Parameters

ipv6-address: Specifies the source IPv6 address of an FTP connection. To view the source IPv6 addresses of FTP connections, execute the **display ftp-user** command.

port *port*: Specifies the source port of an FTP connection. To view the source ports of FTP connections, execute the **display ftp-user** command.

Examples

Release the FTP connections established from IPv6 address 2000::154.

```
<Sysname> free ftp user-ip ipv6 2000::154
Are you sure to free FTP connection? [Y/N]:y
<Sysname>
```

ftp server acl

Use **ftp server acl** to use an ACL to control FTP clients' access to the FTP server.

Use **undo ftp server acl** to restore the default.

Syntax

ftp server acl { *advanced-acl-number* | *basic-acl-number* | **ipv6** { *advanced-acl-number* | *basic-acl-number* } }

undo ftp server acl [**ipv6**]

Default

No ACL is used to control FTP clients' access to the FTP server.

Views

System view

Predefined user roles

network-admin

Parameters

advanced-acl-number: Specifies an advanced IPv4 ACL number in the range of 3000 to 3999.

basic-acl-number: Specifies a basic IPv4 ACL number in the range of 2000 to 2999.

ipv6 *advanced-acl-number*: Specifies an advanced IPv6 ACL number in the range of 3000 to 3999.

ipv6 *basic-acl-number*: Specifies a basic IPv6 ACL number in the range of 2000 to 2999.

Usage guidelines

You can use this command to permit only FTP requests from specific FTP clients. This configuration takes effect only for FTP connections to be established. It does not impact existing FTP connections.

If you execute this command multiple times, the most recent configuration takes effect.

Examples

Use ACL 2001 to allow only client 1.1.1.1 to access the FTP server.

```
<Sysname> system-view
[Sysname] acl basic 2001
[Sysname-acl-ipv4-basic-2001] rule 0 permit source 1.1.1.1 0
[Sysname-acl-ipv4-basic-2001] rule 1 deny source any
[Sysname-acl-ipv4-basic-2001] quit
[Sysname] ftp server acl 2001
```

ftp server acl-deny-log enable

Use **ftp server acl-deny-log enable** to enable logging for FTP login attempts that are denied by the FTP login control ACL.

Use **undo ftp server acl-deny-log enable** to disable logging for FTP login attempts that are denied by the FTP login control ACL.

Syntax

ftp server acl-deny-log enable

undo ftp server acl-deny-log enable

Default

Logging is disabled for FTP login attempts that are denied by the FTP login control ACL.

Views

System view

Predefined user roles

network-admin

Usage guidelines

Only clients permitted by the FTP login control ACL can use FTP to access the device. This logging feature generates log messages for FTP login attempts that are denied by the FTP login control ACL.

For information about log message output, see the information center in *Network Management and Monitoring Configuration Guide*. For information about configuring an FTP login control ACL, see the **ftp server acl** command.

Examples

Enable logging for FTP login attempts that are denied by the FTP login control ACL.

```
<Sysname> system-view
[Sysname] FTP server acl-deny-log enable
```

Related commands

ftp server acl

ftp server dscp

Use **ftp server dscp** to set the DSCP value for IPv4 to use for FTP packets sent to an FTP client.

Use **undo ftp server dscp** to restore the default.

Syntax

ftp server dscp *dscp-value*

undo ftp server dscp

Default

IPv4 uses the DSCP value 0 for FTP packets sent to an FTP client.

Views

System view

Predefined user roles

network-admin

Parameters

dscp-value: Specifies a DSCP value in the range of 0 to 63.

Usage guidelines

The DSCP value is carried in the ToS field of an IP packet to indicate the transmission priority of the packet.

Examples

\# Set the DSCP value for IPv4 to use for outgoing FTP packets to 30 on an FTP server.

```
<Sysname> system-view
[Sysname] ftp server dscp 30
```

ftp server enable

Use **ftp server enable** to enable the FTP server.

Use **undo ftp server enable** to disable the FTP server.

Syntax

ftp server enable

undo ftp server enable

Default

The FTP server is disabled.

Views

System view

Predefined user roles

network-admin

Examples

\# Enable the FTP server.

```
<Sysname> system-view
[Sysname] ftp server enable
```

ftp server ipv6 dscp

Use **ftp server ipv6 dscp** to set the DSCP value for IPv6 to use for FTP packets sent to an FTP client.

Use **undo ftp server ipv6 dscp** to restore the default.

Syntax

ftp server ipv6 dscp *dscp-value*

undo ftp server ipv6 dscp

Default

IPv6 uses the DSCP value 0 for FTP packets sent to an FTP client.

Views

System view

Predefined user roles

network-admin

Parameters

dscp-value: Specifies a DSCP value in the range of 0 to 63.

Usage guidelines

The DSCP value is carried in the Traffic class field of an IPv6 packet to indicate the transmission priority of the packet.

Examples

Set the DSCP value for IPv6 to use for outgoing FTP packets to 30 on an FTP server.

```
<Sysname> system-view
[Sysname] ftp server ipv6 dscp 30
```

ftp server ssl-server-policy

Use **ftp server ssl-server-policy** to associate an SSL server policy with the FTP server.

Use **undo ftp server ssl-server-policy** to restore the default.

Syntax

ftp server ssl-server-policy *policy-name*

undo ftp server ssl-server-policy

Default

No SSL server policy is associated with the FTP server.

Views

System view

Predefined user roles

network-admin

Parameters

policy-name: Specifies an SSL server policy by its name, a string of 1 to 31 characters.

Usage guidelines

After you associate an SSL server policy with the device, a client that supports SFTP will establish a secure connection to the device to ensure data security.

Examples

Associate SSL server policy **myssl** with the FTP server.

```
<Sysname> system-view
[Sysname] ftp server ssl-server-policy myssl
```

Related commands

ftp server enable

ssl server-policy (*Security Command Reference*)

ftp timeout

Use **ftp timeout** to set the FTP connection idle-timeout timer.

Use **undo ftp timeout** to restore the default.

Syntax

ftp timeout *minute*

undo ftp timeout

Default

The FTP connection idle-timeout timer is 30 minutes.

Views

System view

Predefined user roles

network-admin

Parameters

minute: Specifies a time interval in the range of 1 to 35791 minutes.

Usage guidelines

If no data transfer occurs on an FTP connection within the idle-timeout interval, the FTP server closes the FTP connection to release resources.

Examples

\# Set the FTP connection idle-timeout timer to 36 minutes.

```
<Sysname> system-view
[Sysname] ftp timeout 36
```

FTP client commands

For FTP users to execute FTP client configuration commands, you must configure authorization settings for users on the FTP server. Authorized operations include viewing the files in the working directory, reading/downloading/uploading/renaming/removing files, and creating directories.

The FTP client commands in this section are supported by the device, but whether they can be executed successfully depends on the FTP server.

The output in the examples of this section varies by FTP server type.

?

Use **?** to display all commands supported by an FTP client.

Use **?** *command-name* to display the help information for a command.

Syntax

? [*command-name*]

Views

FTP client view

Predefined user roles

network-admin

Parameters

command-name: Specifies a command supported by the FTP client.

Usage guidelines

In FTP client view, entering **?** is the same as executing the **help** command.

Examples

Display all commands supported by the FTP client.
```
ftp> ?
Commands may be abbreviated.  Commands are:

append          delete          ls              quit            rmdir
ascii           debug           mkdir           reget           status
binary          dir             newer           rstatus         system
bye             disconnect      open            rhelp           user
cd              get             passive         rename          verbose
cdup            help            put             reset           ?
close           lcd             pwd             restart
```
Display the help information for the **dir** command.
```
ftp> ? dir
dir             list contents of remote directory
```

Related commands

help

append

Use **append** to add the content of a file on the FTP client to a file on the FTP server.

Syntax

append *localfile* [*remotefile*]

Views

FTP client view

Predefined user roles

network-admin

Parameters

localfile: Specifies a file on the FTP client.

remotefile: Specifies a file on the FTP server.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

Examples

Append the content of the local **a.txt** file to the **b.txt** file on the FTP server.
```
ftp> append a.txt b.txt
227 Entering Passive Mode (192,168,1,84,8,145)
150 Accepted data connection
226 File successfully transferred
1657 bytes sent in 0.000736 seconds (2.15 Mbyte/s)
```

ascii

Use **ascii** to set the file transfer mode to ASCII.

Syntax

ascii

Default

The file transfer mode is binary.

Views

FTP client view

Predefined user roles

network-admin

Usage guidelines

You can perform this operation only after you log in to the FTP server.

FTP transfers files in either of the following modes:

- **Binary mode**—Transfers non-text files.
- **ASCII mode**—Transfers text files.

When the device acts as the FTP server, the transfer mode is determined by the FTP client. When the device acts as the FTP client, you can set the transfer mode. The transfer mode is binary by default.

Examples

Set the file transfer mode to ASCII.

```
ftp> ascii
200 TYPE is now ASCII
```

Related commands

binary

binary

Use **binary** to set the file transfer mode to binary, which is also called the flow mode.

Syntax

binary

Default

The file transfer mode is binary.

Views

FTP client view

Predefined user roles

network-admin

Usage guidelines

You can perform this operation only after you log in to the FTP server.

FTP transfers files in either of the following modes:

- **Binary mode**—Transfers program file or pictures.

- **ASCII mode**—Transfers text files.

When the device acts as the FTP server, the transfer mode is determined by the FTP client. When the device acts as the FTP client, you can set the transfer mode. The default transfer mode is binary.

Examples

Set the file transfer mode to binary.
```
ftp> binary
200 TYPE is now 8-bit binary
```

Related commands

ascii

bye

Use **bye** to terminate the connection to the FTP server and return to user view. If no connection is established between the device and the FTP server, use this command to return to user view.

Syntax

bye

Views

FTP client view

Predefined user roles

network-admin

Examples

Terminate the connection to the FTP server and return to user view.
```
ftp> bye
221-Goodbye. You uploaded 2 and downloaded 2 kbytes.
221 Logout.
<Sysname>
```

Related commands

quit

cd

Use **cd** to change the current working directory to another directory on the FTP server.

Syntax

cd { *directory* | **..** | **/** }

Views

FTP client view

Predefined user roles

network-admin

Parameters

directory: Specifies the target directory. If the target directory does not exist, the **cd** command does not change the current working directory.

..: Specifies the upper directory. Executing the **cd ..** command is the same as executing the **cdup** command. If the current working directory is the FTP root directory, the **cd ..** command does not change the current working directory.

/: Specifies the FTP root directory.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

The directory that can be accessed must be authorized by the FTP server.

Examples

Change the working directory to the **logfile** subdirectory of the current directory.

```
ftp> cd logfile
250 OK. Current directory is /logfile
```

Change the working directory to the **folder** subdirectory of the FTP root directory.

```
ftp> cd /folder
250 OK. Current directory is /folder
```

Change the working directory to the upper directory of the current directory.

```
ftp> cd ..
250 OK. Current directory is /
```

Change the working directory to the FTP root directory.

```
ftp> cd /
250 OK. Current directory is /
```

Related commands

cdup

pwd

cdup

Use **cdup** to enter the upper directory of the FTP server.

Syntax

cdup

Views

FTP client view

Predefined user roles

network-admin

Usage guidelines

You can perform this operation only after you log in to the FTP server.

This command does not change the working directory if the current directory is the FTP root directory.

Examples

Change the working directory to the upper directory.

```
ftp> pwd
257 "/ftp/subdir" is your current location
ftp> cdup
250 OK. Current directory is /ftp
```

```
ftp> pwd
257 "/ftp" is your current location
```

Related commands

cd

pwd

close

Use **close** to terminate the connection to the FTP server without exiting FTP client view.

Syntax

close

Views

FTP client view

Predefined user roles

network-admin

Usage guidelines

You can perform this operation only after you log in to the FTP server.

Examples

Terminate the connection to the FTP server without exiting the FTP client view.

```
ftp> close
221-Goodbye. You uploaded 0 and downloaded 0 kbytes.
221 Logout.
ftp>
```

Related commands

disconnect

debug

Use **debug** to enable or disable FTP client debugging.

Syntax

debug

Default

FTP client debugging is disabled.

Views

FTP client view

Predefined user roles

network-admin

Usage guidelines

When FTP client debugging is enabled, executing this command disables FTP client debugging.

When FTP client debugging is disabled, executing this command enables FTP client debugging.

Examples

Enable and then disable FTP client debugging.

```
ftp> debug
Debugging on (debug=1).
ftp> debug
Debugging off (debug=0).
```

delete

Use **delete** to permanently delete a file from the FTP server.

Syntax

delete *remotefile*

Views

FTP client view

Predefined user roles

network-admin

Parameters

remotefile: Specifies a file on the FTP server.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

To perform this operation, you must have delete permission on the FTP server.

Examples

Delete the **b.txt** file.

```
ftp> delete b.txt
250 Deleted b.txt
```

dir

Use **dir** to display or save detailed information about files and directories on the FTP server.

Syntax

dir [*remotefile* [*localfile*]]

Views

FTP client view

Predefined user roles

network-admin

Parameters

remotefile: Specifies a file or directory on the FTP server.

localfile: Specifies the name of the local file used to save the displayed information.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

To display detailed information about the files and subdirectories in the working directory on the FTP server, use the **dir** command.

To display detailed information about a file or directory on the FTP server, use the **dir** *remotefile* command.

To save detailed information about a file or directory on the FTP server to a local file, use the **dir** *remotefile localfile* command.

In FTP client view, executing the **dir** command is the same as executing the **ls** command.

Examples

Display detailed information about the files and subdirectories in the working directory on the FTP server.

```
ftp> dir
150 Connecting to port 50201
-rwxr-xr-x    1 0         0                  1481 Jul  7 15:36 a.txt
drwxr-xr-x    2 0         0                  8192 Jul  2 14:33 diagfile
drwxr-xr-x    3 0         0                  8192 Jul  7 15:21 ftp
drwxr-xr-x    2 0         0                  8192 Jul  5 09:15 logfile
drwxr-xr-x    2 0         0                  8192 Jul  2 14:33 seclog
-rwxr-xr-x    1 0         0              40808448 Jul  2 14:33 system-a1801.bin
-rwxr-xr-x    1 0         0                  3050 Jul  7 12:26 startup.cfg
-rwxr-xr-x    1 0         0                 54674 Jul  4 09:24 startup.mdb
-rwxr-xr-x    1 0         0                  1481 Jul  7 12:34 x.cfg
226 9 matches total
```

Save detailed information about file **a.txt** to **s.txt**.

```
ftp> dir a.txt s.txt
output to local-file: s.txt ? [Y/N]y
150 Connecting to port 50203
226-Glob: a.txt
```

Display the content of the file **s.txt**.

```
ftp> bye
221-Goodbye. You uploaded 0 and downloaded 2 kbytes.
221 Logout.
<Sysname> more s.txt
-rwxr-xr-x    1 0         0                  1481 Jul  7 12:34 a.txt
```

Related commands

ls

disconnect

Use **disconnect** to terminate the connection to the FTP server without exiting FTP client view.

Syntax

disconnect

Views

FTP client view

Predefined user roles

network-admin

Usage guidelines

You can perform this operation only after you log in to the FTP server.

Examples

Terminate the connection to the FTP server without exiting the FTP client view.

```
ftp> disconnect
221-Goodbye. You uploaded 0 and downloaded 0 kbytes.
221 Logout.
ftp>
```

Related commands

close

display ftp client source

Use **display ftp client source** to display the source address settings on the FTP client.

Syntax

display ftp client source

Views

Any view

Predefined user roles

network-admin

network-operator

Examples

Display the source address settings on the FTP client.

```
<Sysname> display ftp client source
The source IP address of the FTP client is 1.1.1.1.
```

ftp

Use **ftp** to log in to an IPv4 FTP server and enter FTP client view.

Syntax

ftp [*ftp-server* [*service-port*] [**vpn-instance** *vpn-instance-name*] [**dscp** *dscp-value* | **source** { **interface** *interface-type interface-number* | **ip** *source-ip-address* } | **-d**] *]

Views

User view

Predefined user roles

network-admin

Parameters

ftp-server: Specifies the IPv4 address or host name of an FTP server. A host name can be a case-insensitive string of 1 to 253 characters. Valid characters for a host name include letters, digits, hyphens (-), underscores (_), and dots (.).

service-port: Specifies the TCP port number of the FTP server, in the range of 0 to 65535. The default is 21.

vpn-instance *vpn-instance-name*: Specifies the MPLS L3VPN instance to which the FTP server belongs. The *vpn-instance-name* argument represents the VPN instance name, a case-sensitive string of 1 to 31 characters. If the FTP server belongs to the public network, do not specify this option.

dscp *dscp-value*: Specifies the DSCP value for IPv4 to use in outgoing FTP packets to indicate the packet transmission priority. The value range is 0 to 63. The default is 0.

source { **interface** *interface-type* *interface-number* | **ip** *source-ip-address* }: Specifies the source address used to establish the FTP connection.

- **interface** *interface-type interface-number*: Specifies an interface by its type and number. The device will use the interface's primary IPv4 address as the source address. To establish the FTP connection successfully, make sure the interface is up and has the primary IPv4 address configured.

- **ip** *source-ip-address*: Specifies an IPv4 address. To establish the FTP connection successfully, make sure this address is the IPv4 address of an interface in up state on the device.

-d: Enables FTP client debugging.

Usage guidelines

This command is only applicable to IPv4 networks.

If no parameters are specified, this command enters the FTP client view without logging in to an FTP server.

If the server parameters are specified, you are prompted to enter the username and password for logging in to the FTP server.

Examples

Log in to FTP server 192.168.0.211. Use 192.168.0.212 as the source IPv4 address for outgoing FTP packets.

```
<Sysname>ftp 192.168.0.211 source ip 192.168.0.212
Press CTRL+C to abort.
Connected to 192.168.0.211 (192.168.0.211).
220 WFTPD 2.0 service (by Texas Imperial Software) ready for new user
User (192.168.0.211:(none)): abc
331 Give me your password, please
Password:
230 Logged in successfully
Remote system type is MSDOS.
ftp>
```

Log in to FTP server 192.168.0.211 and enable FTP client debugging.

```
<Sysname> ftp 192.168.0.211 –d
Press CTRL+C to abort.
Connected to 192.168.0.211 (192.168.0.211).
220 FTP service ready.
User (192.168.0.211:(none)): abc
*Apr 10 09:02:24:139 2017 Sysname FTPC/7/EVENT: PAM initialization result: 0.
*Apr 10 09:02:24:150 2017 Sysname FTPC/7/EVENT: PAM: Sent a start-accounting request.
Result: 0.
*Apr 10 09:02:24:860 2017 Sysname FTPC/7/COMMAND: USER abc
331 Password required for abc.
Password:
*Apr 10 09:02:25:575 2017 Sysname FTPC/7/COMMAND: PASS XXXX
```

```
230 User logged in.
215 UNIX Type: L8
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> *Apr 10 09:02:25:640 2017 SIMWARE FTPC/7/COMMAND: SYST
ftp>
```

ftp client ipv6 source

Use **ftp client ipv6 source** to specify the source IPv6 address for FTP packets sent to an IPv6 FTP server.

Use **undo ftp client ipv6 source** to restore the default.

Syntax

ftp client ipv6 source { **interface** *interface-type interface-number* | **ipv6** *source-ipv6-address* }

undo ftp client ipv6 source

Default

No source address is specified for FTP packets sent to an IPv6 FTP server. The device selects a source IPv6 address as defined in RFC 3484.

Views

System view

Predefined user roles

network-admin

Parameters

interface *interface-type interface-number*: Specifies an interface by its type and number. The device will use the interface's IPv6 address as the source address. For successful FTP packet transmission, make sure the interface is up and is configured with an IPv6 address.

ipv6 *source-ipv6-address*: Specifies an IPv6 address. For successful FTP packet transmission, make sure this address is the IPv6 address of an interface in up state on the device.

Usage guidelines

If you execute this command multiple times, the most recent configuration takes effect.

The source address specified with the **ftp ipv6** command takes precedence over the source address specified with the **ftp client ipv6 source** command.

The source address specified with the **ftp client ipv6 source** command applies to all FTP connections. The source address specified with the **ftp ipv6** command applies only to the FTP connection that is being established.

Examples

Specify the source IPv6 address of 2000::1 for FTP packets sent to an IPv6 FTP server.
```
<Sysname> system-view
[Sysname] ftp client ipv6 source ipv6 2000::1
```

Related commands

ftp ipv6

ftp client source

Use **ftp client source** to specify the source IPv4 address for FTP packets sent to an IPv4 FTP server.

Use **undo ftp client source** to restore the default.

Syntax

ftp client source { **interface** *interface-type interface-number* | **ip** *source-ip-address* }

undo ftp client source

Default

No source IPv4 address is specified for FTP packets sent to an IPv4 FTP server. The device uses the primary IPv4 address of the output interface for the route to the server as the source address.

Views

System view

Predefined user roles

network-admin

Parameters

interface *interface-type interface-number*: Specifies an interface by its type and number. The device will use the interface's primary IPv4 address as the source address. For successful FTP packet transmission, make sure the interface is up and has the primary IPv4 address configured.

ip *source-ip-address*: Specifies an IPv4 address. For successful FTP packet transmission, make sure this address is the IPv4 address of an interface in up state on the device.

Usage guidelines

If you execute this command multiple times, the most recent configuration takes effect.

The source address specified with the **ftp** command takes precedence over the source address specified with the **ftp client source** command.

The source address specified with the **ftp client source** command applies to all FTP connections. The source address specified with the **ftp** command applies only to the FTP connection that is being established.

Examples

Specify the source IPv4 address of 192.168.20.222 for FTP packets sent to an IPv4 FTP server.

```
<Sysname> system-view
[Sysname] ftp client source ip 192.168.20.222
```

Related commands

ftp

ftp ipv6

Use **ftp ipv6** to log in to an IPv6 FTP server and enter FTP client view.

Syntax

ftp ipv6 [*ftp-server* [*service-port*] [**vpn-instance** *vpn-instance-name*] [**dscp** *dscp-value* | **source** { **ipv6** *source-ipv6-address* | **interface**

```
interface-type  interface-number } | -d ] * [ -i interface-type
interface-number ] ]
```

Views

User view

Predefined user roles

network-admin

Parameters

ftp-server: Specifies the IPv6 address or host name of an FTP server. A host name can be a case-insensitive string of 1 to 253 characters. Valid characters for a host name include letters, digits, hyphens (-), underscores (_), and dots (.).

service-port: Specifies the TCP port number of the FTP server, in the range of 0 to 65535. The default is 21.

dscp *dscp-value*: Specifies the DSCP value for IPv6 to use in outgoing FTP packets to indicate the packet transmission priority. The value range is 0 to 63. The default is 0.

source { **ipv6** *source-ipv6-address* | **interface** *interface-type interface-number* }: Specifies the source address used to establish the FTP connection.

- **interface** *interface-type interface-number*: Specifies an interface by its type and number. This option can be used only when the FTP server address is a link local address and the specified output interface has a link local address. For information about link local addresses, see *Layer 3—IP Services Configuration Guide*.

- **ipv6** *source-ipv6-address*: Specifies an IPv6 address. To establish the FTP connection successfully, make sure this address is the IPv6 address of an interface in up state on the device.

vpn-instance *vpn-instance-name*: Specifies the MPLS L3VPN instance to which the FTP server belongs. The *vpn-instance-name* argument represents the VPN instance name, a case-sensitive string of 1 to 31 characters. If the FTP server belongs to the public network, do not specify this option.

-i *interface-type interface-number*: Specifies an output interface by its type and number. This option can be used only when the FTP server address is a link local address and the specified output interface has a link local address.

-d: Enables FTP client debugging.

Usage guidelines

This command is only applicable to IPv6 networks.

If no parameters are specified, this command enters the FTP client view.

If the FTP server parameters are specified, you are prompted to enter the username and password for logging in to the FTP server.

Examples

Log in to FTP server 2000::154.
```
<Sysname>ftp ipv6 2000::154
Press CTRL+C to abort.
Connected to 2000::154 (2000::154).
220 FTP service ready.
User (2000::154): root
331 Password required for root.
Password:
230 User logged in
```

```
Remote system type is H3C
```

Log in to FTP server 2000::154 and enable FTP client debugging.

```
<Sysname> ftp ipv6 2000::154 -d
Press CTRL+C to abort.
Connected to 2000::154 (2000::154).
220 FTP service ready.
User (2000::154:(none)): root
*Apr 10 09:03:24:139 2017 Sysname FTPC/7/EVENT: PAM initialization result: 0.
*Apr 10 09:03:24:150 2017 Sysname FTPC/7/EVENT: PAM: Sent a start-accounting request.
Result: 0.
*Apr 10 09:03:24:860 2017 Sysname FTPC/7/COMMAND: USER root
331 Password required for root.
Password:
*Apr 10 09:03:25:575 2017 Sysname FTPC/7/COMMAND: PASS XXXX
230 User logged in.
215 UNIX Type: L8
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> *Apr 10 09:03:25:640 2017 SIMWARE FTPC/7/COMMAND: SYST
ftp>
```

get

Use **get** to download a file from the FTP server and save the file.

Syntax

get *remotefile* [*localfile*]

Views

FTP client view

Predefined user roles

network-admin

Parameters

remotefile: Specifies the file to be downloaded.

localfile: Specifies a name for the downloaded file. If you do not specify this argument, the system uses the name of the source file.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

To save the downloaded file to the working directory accessed by the **ftp** command, perform one of the following tasks:

- Execute the command without specifying the *localfile* argument.
- Specify a file name without any path information for the *localfile* argument, for example, a.cfg.

To save the downloaded file to some other directory, you must specify a fully qualified file name for the *localfile* argument, for example, flash:/subdirectory/a.cfg.

Examples

Download the **a.txt** file and save it as **b.txt** in the working directory accessed by the **ftp** command.

```
ftp> get a.txt b.txt
local: b.txt remote: a.txt
150 Connecting to port 47457
226 File successfully transferred
1569 bytes received in 0.00527 seconds (290.6 kbyte/s)
```

Download the **a.txt** file to the **test** directory in the working directory accessed by the **ftp** command.

```
ftp> get a.txt flash:/test/b.txt
local: flash:/test/b.txt remote: a.txt
150 Connecting to port 47457
226 File successfully transferred
1569 bytes received in 0.00527 seconds (290.6 kbyte/s)
```

Download the **a.txt** file to the root directory of the flash memory on a member device. Save the file as **c.txt**.

```
ftp> get a.txt slot1#flash:/c.txt
local: slot1#flash:/c.txt remote: a.txt
150 Connecting to port 47460
226 File successfully transferred
1569 bytes received in 0.0564 seconds (27.2 kbyte/s)
```

Related commands

put

help

Use **help** to display all commands supported by the FTP client.

Use **help** *command-name* to display the help information for a command.

Syntax

help [*command-name*]

Views

FTP client view

Predefined user roles

network-admin

Parameters

command-name: Specifies a command supported by the FTP client.

Usage guidelines

In FTP client view, executing the **help** command is the same as entering **?**.

Examples

Display all commands supported by the FTP client.

```
ftp> help

append          delete          ls              quit            rmdir
```

```
ascii            debug           mkdir           reget           status
binary           dir             newer           rstatus         system
bye              disconnect      open            rhelp           user
cd               get             passive         rename          verbose
cdup             help            put             reset           ?
close            lcd             pwd             restart
```
Display the help information for the **dir** command.
```
ftp> help dir
dir             list contents of remote directory
```

Related commands

?

lcd

Use **lcd** to display or change the local working directory of the FTP client.

Syntax

lcd [*directory* | **/**]

Views

FTP client view

Predefined user roles

network-admin

Parameters

directory: Changes the local working directory of the FTP client to the specified local directory. There must be a slash sign (/) before the name of the storage medium, for example, /flash:/logfile.

/: Changes the local working directory of the FTP client to the local root directory.

Usage guidelines

To display the local working directory of the FTP client, do not specify the *directory* or **/** argument.

Examples

Display the local working directory.
```
ftp> lcd
Local directory now /flash:
```
Change the local working directory to **flash:/logfile**.
```
ftp> lcd /flash:/logfile
Local directory now /flash:/logfile
```

ls

Use **ls** to display or save detailed information about files and directories on the FTP server.

Syntax

ls [*remotefile* [*localfile*]]

Views

FTP client view

Predefined user roles

network-admin

Parameters

remotefile: Specifies a file or directory on the FTP server.

localfile: Specifies the name of the local file used to save the displayed information.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

To display detailed information about the files and subdirectories in the working directory on the FTP server, use the **ls** command.

To display detailed information about a file or directory on the FTP server, use the **ls** *remotefile* command.

To save detailed information about a file or directory on the FTP server to a local file, use the **ls** *remotefile localfile* command.

In FTP client view, executing the **ls** command is the same as executing the **dir** command.

Examples

Display detailed information about the files and subdirectories in the working directory on the FTP server.

```
ftp> ls
150 Connecting to port 50201
-rwxr-xr-x   1 0          0                 1481 Jul  7 15:36 a.txt
drwxr-xr-x   2 0          0                 8192 Jul  2 14:33 diagfile
drwxr-xr-x   3 0          0                 8192 Jul  7 15:21 ftp
drwxr-xr-x   2 0          0                 8192 Jul  5 09:15 logfile
drwxr-xr-x   2 0          0                 8192 Jul  2 14:33 seclog
-rwxr-xr-x   1 0          0             40808448 Jul  2 14:33 system-a1801.bin
-rwxr-xr-x   1 0          0                 3050 Jul  7 12:26 startup.cfg
-rwxr-xr-x   1 0          0                54674 Jul  4 09:24 startup.mdb
-rwxr-xr-x   1 0          0                 1481 Jul  7 12:34 x.cfg
226 9 matches total
```

Save detailed information about the file **a.txt** to **s.txt**.

```
ftp> ls a.txt s.txt
output to local-file: s.txt ? [Y/N]y
150 Connecting to port 50203
226-Glob: s.txt
```

Display the content of the file **s.txt**.

```
ftp> bye
221-Goodbye. You uploaded 0 and downloaded 2 kbytes.
221 Logout.
<Sysname> more s.txt
-rwxr-xr-x   1 0          0                 1481 Jul  7 12:34 a.txt
```

Related commands

dir

mkdir

Use **mkdir** to create a subdirectory in the current directory on the FTP server.

Syntax

mkdir *directory*

Views

FTP client view

Predefined user roles

network-admin

Parameters

directory: Specifies the name for the directory to be created.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

You must have permission to perform this operation on the FTP server.

Examples

Create a subdirectory named **newdir** in the current directory of the FTP server.

```
ftp> mkdir newdir
257 "newdir" : The directory was successfully created
```

newer

Use **newer** to update a local file by using a file on the FTP server.

Syntax

newer *remotefile* [*localfile*]

Views

FTP client view

Predefined user roles

network-admin

Parameters

remotefile: Specifies a file on the FTP server.

localfile: Specifies the local file to be updated.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

If the local file does not exist, this command downloads the file from the FTP server and saves it locally.

If the file on the FTP server is not newer than the local file, this command does not update the local file.

Examples

Update the local file with the **a.txt** file on the FTP server.

```
ftp> newer a.txt
local: a.txt remote: a.txt
```

```
150 Connecting to port 63513
226 File successfully transferred
1573 bytes received in 0.0293 seconds (52.3 kbyte/s)
```

open

Use **open** to log in to an FTP server from FTP client view.

Syntax

open *server-address* [*service-port*]

Views

FTP client view

Predefined user roles

network-admin

Parameters

server-address: Specifies the IPv4 address, IPv6 address, or host name of the FTP server.

service-port: Specifies the TCP port number of the FTP server, in the range of 0 to 65535. The default is 21.

Usage guidelines

After you issue this command, the system will prompt you to enter the username and password.

After you log in to one FTP server, you must disconnect from the server before you can use the **open** command to log in to another server.

Examples

In FTP client view, log in to FTP server 192.168.40.7.

```
<Sysname>ftp
ftp> open 192.168.40.7
Press CTRL+C to abort.
Connected to 192.168.40.7 (192.168.40.7).
220 FTP service ready.
User (192.168.40.7:(none)): root
331 Password required for root.
Password:
230 User logged in.
Remote system type is H3C.
ftp>
```

passive

Use **passive** to change the FTP operation mode.

Syntax

passive

Default

The FTP operation mode is passive.

Views

FTP client view

Predefined user roles

network-admin

Usage guidelines

FTP can operate in either of the following modes:

- **Active mode**—The FTP server initiates the TCP connection.
- **Passive mode**—The FTP client initiates the TCP connection.

When the FTP operation mode is passive, executing this command changes the mode to active.

When the FTP operation mode is active, executing this command changes the mode to passive.

This command is typically used together with a firewall to control FTP session establishment between private network users and public network users.

Examples

\# Change the FTP operation mode to passive.

```
ftp> passive
Passive mode on.
ftp> passive
Passive mode off.
```

put

Use **put** to upload a file from the FTP client to the FTP server.

Syntax

put *localfile* [*remotefile*]

Views

FTP client view

Predefined user roles

network-admin

Parameters

localfile: Specifies the local file to be uploaded.

remotefile: Specifies the name of the file for saving the uploaded file on the FTP server.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

To upload a file in the current working directory, specify a file name without the path for the *localfile* argument, for example, a.cfg.

To upload a file in some other directory, specify a fully qualified file name for the *localfile* argument, for example, flash:/subdirectory/a.cfg.

Examples

\# Upload the **a.txt** file from the local working directory to the FTP server. Save the file as **b.txt**.

```
ftp> put a.txt b.txt
local: a.txt remote: b.txt
150 Connecting to port 47461
```

```
226 File successfully transferred
1569 bytes sent in 0.000671 seconds (2.23 Mbyte/s)
```

Upload the **a.txt** file from the **test** directory of the local working directory to the FTP server. Save the file as **b.txt**.

```
ftp> put flash:/test/a.txt b.txt
local: flash:/test/a.txt remote: b.txt
150 Connecting to port 47461
226 File successfully transferred
1569 bytes sent in 0.000671 seconds (2.23 Mbyte/s)
```

Upload file **a.txt** from the **test** directory of the storage medium on a member device. Save the file as **b.txt** on the FTP server.

```
ftp> put slot2#flash:/test/a.txt b.txt
local: slot2#flash:/test/a.txt remote: b.txt
150 Connecting to port 47461
226 File successfully transferred
1569 bytes sent in 0.000671 seconds (2.23 Mbyte/s)
```

Related commands

get

pwd

Use **pwd** to display the currently accessed directory on the FTP server.

Syntax

pwd

Views

FTP client view

Predefined user roles

network-admin

Usage guidelines

You can perform this operation only after you log in to the FTP server.

Examples

Display the currently accessed directory on the FTP server.

```
ftp> cd subdir
250 OK. Current directory is /subdir
ftp> pwd
257 "/subdir" is your current location
```

quit

Use **quit** to terminate the connection to the FTP server and return to user view.

Syntax

quit

Views

FTP client view

Predefined user roles

network-admin

Examples

Terminate the connection to the FTP server and return to user view.

```
ftp> quit
221-Goodbye. You uploaded 0 and downloaded 0 kbytes.
221 Logout.
<Sysname>
```

Related commands

bye

reget

Use **reget** to get the missing part of a file from the FTP server.

Syntax

reget *remotefile* [*localfile*]

Views

FTP client view

Predefined user roles

network-admin

network-operator

Parameters

remotefile: Specifies a file on the FTP server.

localfile: Specifies a local file.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

If a file download is not completed due to network or storage space problems, use this command to get the part that has not been downloaded yet.

Examples

Get the part of the **s.bin** file that has not been downloaded yet.

```
ftp> reget s.bin
local: s.bin remote: s.bin
350 Restarting at 1749706
150-Connecting to port 47429
150 38143.3 kbytes to download
226 File successfully transferred
39058742 bytes received in 66.2 seconds (576.1 kbyte/s)
```

rename

Use **rename** to rename a file.

Syntax

`rename` [*oldfilename* [*newfilename*]]

Views

FTP client view

Predefined user roles

network-admin

Parameters

oldfilename: Specifies the original file name.

newfilename: Specifies the new file name.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

Examples

Rename the **a.txt** file as **b.txt**.

- Method 1:

```
ftp> rename
(from-name) a.txt
(to-name) b.txt
350 RNFR accepted - file exists, ready for destination
250 File successfully renamed or moved
```

- Method 2:

```
ftp> rename a.txt
(to-name) b.txt
350 RNFR accepted - file exists, ready for destination
250 File successfully renamed or moved
```

- Method 3:

```
ftp> rename a.txt b.txt
350 RNFR accepted - file exists, ready for destination
250 File successfully renamed or moved
```

reset

Use **reset** to clear the reply information received from the FTP server in the buffer.

Syntax

`reset`

Views

FTP client view

Predefined user roles

network-admin

Examples

Clear the reply information received from the FTP server.

```
ftp> reset
```

restart

Use **restart** to specify the file retransmission offset.

Syntax

restart *marker*

Views

FTP client view

Predefined user roles

network-admin

Parameters

marker: Specifies the retransmission offset, in bytes.

Usage guidelines

Use this command to continue with a file retransmission. The file retransmission starts from the (offset+1)th byte.

You can perform this operation only after you log in to the FTP server.

Support for this command depends on the FTP server.

Examples

Set retransmission offset to 2 bytes and retransmit the **h.c** file. The file has 82 bytes in total.

```
ftp> restart 2
restarting at 2. execute get, put or append to initiate transfer
ftp> put h.c h.c
local: h.c remote: h.c
350 Restart position accepted (2).
150 Ok to send data.
226 File receive OK.
80 bytes sent in 0.000445 seconds (175.6 kbyte/s)
ftp> dir
150 Here comes the directory listing.
-rw-r--r--    1 0         0               82 Jul 18 02:58 h.c
```

rhelp

Use **rhelp** to display the FTP commands supported by the FTP server.

Use **rhelp** *protocol-command* to display the help information for an FTP command supported by the FTP server.

Syntax

rhelp [*protocol-command*]

Views

FTP client view

Predefined user roles

network-admin

Parameters

protocol-command: Specifies an FTP command.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

Examples

Display the FTP-related commands supported by the FTP server.

```
ftp> rhelp
214-The following FTP commands are recognized
 USER PASS NOOP QUIT SYST TYPE
 HELP CWD  XCWD PWD  CDUP XCUP
 XPWD LIST NLST MLSD PORT EPRT
 PASV EPSV REST RETR STOR APPE
 DELE MKD  XMKD RMD  XRMD ABOR
 SIZE RNFR RNTO
214 UNIX Type: L8
```

Table 3 Command output

Field	Description
USER	Username.
PASS	Password.
NOOP	Null operation.
SYST	System parameters.
TYPE	Request type.
CWD	Changes the current working directory.
XCWD	Extended command with the meaning of CWD.
PWD	Prints the working directory.
CDUP	Changes the directory to the upper directory.
XCUP	Extended command with the meaning of CDUP.
XPWD	Extended command with the meaning of PWD.
LIST	Lists files.
NLST	Lists brief file description.
MLSD	Lists file content.
PORT	Active mode (IPv4).
EPRT	Active mode (IPv6).
PASV	Passive mode (IPv4).
EPSV	Passive mode (IPv6).
REST	Restarts.
RETR	Downloads files.
STOR	Uploads files.
APPE	Appends uploading.
DELE	Deletes files.

Field	Description
MKD	Creates folders.
XMKD	Extended command with the meaning of MKD.
RMD	Deletes folders.
XRMD	Extended command with the meaning of RMD.
ABOR	Aborts the transmission.
SIZE	Size of the transmission file.
RNFR	Original name.
RNTO	New name.

rmdir

Use **rmdir** to permanently delete a directory from the FTP server.

Syntax

rmdir *directory*

Views

FTP client view

Predefined user roles

network-admin

Parameters

directory: Specifies a directory on the FTP server.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

To perform this operation, you must have delete permission on the FTP server.

Delete all files and subdirectories in a directory before you delete the directory. For more information about how to delete files, see the **delete** command.

The **rmdir** command does not delete the files of the specified directory from the recycle bin.

Examples

Delete empty directory **subdir1**.

```
ftp>rmdir subdir1
250 The directory was successfully removed
```

Related commands

delete

rstatus

Use **rstatus** to display FTP server status information.

Use **rstatus** *remotefile* to display detailed information about a directory or file on the FTP server.

Syntax

rstatus [*remotefile*]

Views

FTP client view

Predefined user roles

network-admin

Parameters

remotefile: Specifies a directory or file on the FTP server.

Usage guidelines

You can perform this operation only after you log in to the FTP server.

Support for this command depends on the FTP server.

Examples

Display FTP server status information.

```
ftp> rstatus
211-FTP server status:
     Connected to 192.168.20.177
     Logged in as root
     TYPE: ASCII
     No session bandwidth limit
     Session timeout in seconds is 300
     Control connection is plain text
     Data connections will be plain text
     At session startup, client count was 1
     vsFTPd 2.0.6 - secure, fast, stable
211 End of status
```

Table 4 Command output

Filed	Description
211-FTP server status:	Beginning of the display of FTP server status, where 211 specifies the FTP command.
Connected to 192.168.20.177	IP address of the FTP client.
Logged in as root	Login username root.
TYPE: ASCII	File transfer mode ASCII.
Session timeout in seconds is 300	FTP connection idle-timeout interval is 300 seconds.
Control connection is plain text	Control connection type is plain text.
Data connections will be plain text	Data connection type is plain text.
At session startup, client count was 1	FTP connection number is 1.
vsFTPd 2.0.6 - secure, fast, stable	FTP version is 2.0.6.
211 End of status	End of the display of FTP server status.

Display the file **a.txt**.

```
ftp> rstatus a.txt
213-Status follows:
```

```
-rw-r--r--    1 0        0            80 Jul 18 02:58 a.txt
213 End of status
```

Table 5 Command output

Field	Description
213-Status follows:	Beginning of the display of the file, where 213 specifies the FTP command.
-rw-r--r--	The first bit specifies the file type. • **-**—Common. • **B**—Block. • **c**—Character. • **d**—Directory. • **l**—Symbol connection file. • **p**—Pipe. • **s**—socket. The second bit through the tenth bit are divided into three groups. Each group contains three characters, representing the access permission of the owner, group, and other users. • **-**—No permission. • **r**—Read permission. • **w**—Write permission. • **x**—Execution permission.
1	Number of connections.
0	Name of the file owner.
0	Group number of the file owner.
80	File size, in bytes.
Jul 18 02:58	Date and time when the file was most recently modified.
a.txt	File name.
213 End of status	End of the display of the file information.

status

Use **status** to display FTP status information.

Syntax

status

Views

FTP client view

Predefined user roles

network-admin

Examples

Display FTP status information.
```
ftp> status
Connected to 192.168.1.56.
No proxy connection.
Not using any security mechanism.
Mode: stream; Type: ascii; Form: non-print; Structure: file
```

```
Verbose: on; Bell: off; Prompting: on; Globbing: off
Store unique: off; Receive unique: off
Case: off; CR stripping: on
Ntrans: off
Nmap: off
Hash mark printing: off; Use of PORT cmds: on
```

Table 6 Command output

Field	Description
Connected to 192.168.1.56.	IP address of the FTP server that is connected to the FTP client.
Verbose: on; Bell: off; Prompting: on; Globbing: off	Displays debugging information.
Store unique: off; Receive unique: off	The name of the file on the FTP server is unique and the name of the local file is unique.
Case: off; CR stripping: on	Does not support obtaining multiple files once and deletes "\r" when downloading text files.
Ntrans: off	Does not use the input-output transmission table.
Nmap: off	The file name does not use the input-to-output mapping template.
Hash mark printing: off; Use of PORT cmds: on	Does not end with a pound sign (#) and uses "PORT" data transmission.

system

Use **system** to display the system information of the FTP server.

Syntax

system

Views

FTP client view

Predefined user roles

network-admin

Usage guidelines

You can perform this operation only after you log in to the FTP server.

Examples

Display the system information of the FTP server.
```
ftp> system
215 UNIX Type: L8
```

user

Use **user** to initiate an FTP authentication on the current FTP connection.

Syntax

user *username* [*password*]

Views

FTP client view

Predefined user roles

network-admin

Parameters

username: Specifies the username.

password: Specifies the password.

Usage guidelines

If you tried to access an FTP server but failed to pass the authentication, you can use this command to try again before the connection to the FTP server expires.

After you log in to an FTP server, you can initiate an FTP authentication to change to a new account. By changing to a new account, you can get a different privilege without re-establishing the FTP connection.

Make sure the specified username and password have been configured on the FTP server. If the username or password is not configured, this command fails and the FTP connection is closed.

Examples

After logging in to the FTP server, use username **ftp** and password **123456** to log in again to the FTP server.

- Method 1:
  ```
  ftp> user ftp 123456
  331 Password required for ftp.
  230 User logged in.
  ```
- Method 2:
  ```
  ftp> user ftp
  331 Password required for ftp.
  Password:
  230 User logged in.
  ```

verbose

Use **verbose** to enable or disable the device to display detailed information about FTP operations.

Syntax

verbose

Default

The device displays detailed information about FTP operations.

Views

FTP client view

Predefined user roles

network-admin

Usage guidelines

This command affects only the current FTP session.

Examples

Disable the device from displaying detailed information about FTP operations.

```
ftp> verbose
Verbose mode off.
```

Execute the **get** command.

```
ftp> get a.cfg 1.cfg
```

Enable the device to display detailed information about FTP operations.

```
ftp> verbose
Verbose mode on.
```

Execute the **get** command.

```
ftp> get a.cfg 2.cfg
227 Entering Passive Mode (192,168,1,58,68,14)
150-Accepted data connection
150 The computer is your friend. Trust the computer
226 File successfully transferred
3796 bytes received in 0.00762 seconds (486.5 kbyte/s)
```

TFTP commands

The device supports the FIPS mode that complies with NIST FIPS 140-2 requirements. Support for features, commands, and parameters might differ in FIPS mode and non-FIPS mode. For more information about FIPS mode, see *Security Configuration Guide*.

TFTP is not supported in FIPS mode.

tftp

Use **tftp** to download a file from a TFTP server or upload a file to a TFTP server in an IPv4 network.

Syntax

tftp *tftp-server* { **get** | **put** | **sget** } *source-filename* [*destination-filename*] [**vpn-instance** *vpn-instance-name*] [**dscp** *dscp-value* | **source** { **interface** *interface-type interface-number* | **ip** *source-ip-address* }] *

Views

User view

Predefined user roles

network-admin

Parameters

tftp-server: Specifies the IPv4 address or host name of a TFTP server. The host name can be a case-insensitive string of 1 to 253 characters and can contain only letters, digits, hyphens (-), underscores (_), and dots (.).

get: Downloads a file and writes the file directly to the destination folder. If the destination folder already has a file with the same name, the system deletes the existing file before starting the download operation. The existing file is permanently deleted even if the download operation fails.

put: Uploads a file.

sget: Downloads a file and saves the file to memory before writing it to the destination folder. The system starts to write the file to the destination folder only after the file is downloaded and saved to memory successfully. If the destination folder already has a file with the same name, the system overwrites the existing file. If the download or save-to-memory operation fails, the existing file in the destination folder is not overwritten.

source-filename: Specifies the source file name, a case-insensitive string of 1 to 1 to 255 characters.

destination-filename: Specifies the destination file name, a case-insensitive string of 1 to 255 characters. If this argument is not specified, the file uses the source file name.

vpn-instance *vpn-instance-name*: Specifies the MPLS L3VPN instance to which the TFTP server belongs. The *vpn-instance-name* argument represents the VPN instance name, a case-sensitive string of 1 to 31 characters. If the TFTP server belongs to the public network, do not specify this option.

dscp *dscp-value*: Specifies the DSCP value for IPv4 to use for outgoing TFTP packets to indicate the packet transmission priority. The value range is 0 to 63. The default is 0.

source { **interface** *interface-type interface-number* | **ip** *source-ip-address* }: Specifies the source address for outgoing TFTP packets. If you do not specify this option, the device uses the primary IPv4 address of the output interface for the route to the TFTP server as the source address.

- **interface** *interface-type interface-number*: Specifies an interface by its type and number. The device will use the interface's primary IPv4 address as the source IPv4 address. For successful TFTP packet transmission, make sure the interface is up and has the primary IPv4 address configured.
- **ip** *source-ip-address*: Specifies an IPv4 address. For successful TFTP packet transmission, make sure this address is the IPv4 address of an interface in up state on the device.

Usage guidelines

The source address specified with the **tftp** command takes precedence over the source address specified with the **tftp client source** command.

The source address specified with the **tftp client source** command applies to all TFTP connections. The source address specified with the **tftp** command applies only to the current TFTP connection.

Examples

Download the **new.bin** file from TFTP server 192.168.1.1 and save the file as **new.bin**.

```
<Sysname> tftp 192.168.1.1 get new.bin
Press CTRL+C to abort.
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 13.9M  100 13.9M    0     0  1206k      0  0:00:11  0:00:11 --:--:-- 1206k
Writing file...Done.
<System>
```

Table 7 Command output

Field	Description
%	Percentage of file transmission progress.
Total	Size of files to be transmitted, in bytes.
%	Percentage of received file size to total file size.
Received	Received file size, in bytes.
%	Percentage of sent file size to total file size.
Xferd	Sent file size, in bytes.
Average Dload	Average download speed, in bps.
Speed Upload	Average upload speed, in bps.
Writing file…	The system was writing the downloaded file to the storage medium. This field is displayed only when the **get** or **sget** keyword is specified. If the operation succeeded, this command displays **Done** at the end of this field. If the operation failed, this command displays **Failed**.

Related commands

tftp client source

tftp client ipv6 source

Use **tftp client ipv6 source** to specify the source IPv6 address for TFTP packets sent to an IPv6 TFTP server.

Use **undo tftp client ipv6 source** to restore the default.

Syntax

tftp client ipv6 source { **interface** *interface-type interface-number* | **ipv6** *source-ipv6-address* }

undo tftp client ipv6 source

Default

No source address is specified for TFTP packets sent to an IPv6 TFTP server. The device selects a source IPv6 address as defined in RFC 3484.

Views

System view

Predefined user roles

network-admin

Parameters

interface *interface-type interface-number*: Specifies an interface by its type and number. The device will use the interface's IPv6 address as the source address. For successful TFTP packet transmission, make sure the interface is up and is configured with an IPv6 address.

ipv6 *source-ipv6-address*: Specifies an IPv6 address . For successful TFTP packet transmission, make sure this address is the IPv6 address of an interface in up state on the device.

Usage guidelines

If you execute this command multiple times, the most recent configuration takes effect.

The source address specified with the **tftp ipv6** command takes precedence over the source address specified with the **tftp client ipv6 source** command.

The source address specified with the **tftp client ipv6 source** command applies to all TFTP connections. The source address specified with the **tftp ipv6** command applies only to the TFTP connection that is being established.

Examples

Specify the source IPv6 address of 2000::1 for TFTP packets sent to an IPv6 TFTP server.

```
<Sysname> system-view
[Sysname] tftp client ipv6 source ipv6 2000::1
```

Related commands

tftp ipv6

tftp client source

Use **tftp client source** to specify the source IPv4 address for TFTP packets sent to an IPv4 TFTP server.

Use **undo tftp client source** to restore the default.

Syntax

tftp client source { **interface** *interface-type interface-number* | **ip** *source-ip-address* }

undo tftp client source

Default

No source IPv4 address is specified for TFTP packets sent to an IPv4 TFTP server. The device uses the primary IPv4 address of the output interface for the route to the server as the source address.

Views

System view

Predefined user roles

network-admin

Parameters

interface *interface-type interface-number*: Specifies an interface by its type and number. The device will use the interface's primary IPv4 address as the source address. For successful TFTP packet transmission, make sure the interface is up and has the primary IPv4 address configured.

ip *source-ip-address*: Specifies an IPv4 address. For successful TFTP packet transmission, make sure this address is the IPv4 address of an interface in up state on the device.

Usage guidelines

If you execute this command multiple times, the most recent configuration takes effect.

The source address specified with the **tftp** command takes precedence over the source address specified with the **tftp client source** command.

The source address specified with the **tftp client source** command applies to all TFTP connections. The source address specified with the **tftp** command applies only to the TFTP connection that is being established.

Examples

Specify the source IP address of 192.168.20.222 for TFTP packets sent to an IPv4 TFTP server.
```
<Sysname> system-view
[Sysname] tftp client source ip 192.168.20.222
```

Related commands

tftp

tftp ipv6

Use **tftp ipv6** to download a file from a TFTP server or upload a file to a TFTP server in an IPv6 network.

Syntax

tftp ipv6 *tftp-server* [**-i** *interface-type interface-number*] { **get** | **put** | **sget** } *source-filename* [*destination-filename*] [**vpn-instance** *vpn-instance-name*] [**dscp** *dscp-value* | **source** { **interface** *interface-type interface-number* | **ipv6** *source-ipv6-address* }] *

Views

User view

Predefined user roles

network-admin

Parameters

tftp-server: Specifies the IPv6 address or host name of a TFTP server. The host name can be a case-insensitive string of 1 to 253 characters and can contain only letters, digits, hyphens (-), underscores (_), and dots (.).

-i *interface-type interface-number*: Specifies an output interface by its type and number. This option can be used only when the TFTP server address is a link local address and the specified output interface has a link local address. For information about link local addresses, see *Layer 3—IP Services Configuration Guide*.

get: Downloads a file and writes the file directly to the destination folder. If the destination folder already has a file with the same name, the system deletes the existing file before starting the download operation. The existing file is permanently deleted even if the download operation fails.

put: Uploads a file.

sget: Downloads a file and saves the file to memory before writing it to the destination folder. The system starts to write the file to the destination folder only after the file is downloaded and saved to memory successfully. If the destination folder already has a file using the same name, the system overwrites the existing file. If the download or save-to-memory operation fails, the existing file in the destination folder is not overwritten.

source-filename: Specifies the source file name, a case-insensitive string of 1 to 255 characters.

destination-filename: Specifies the destination file name, a case-insensitive string of 1 to 255 characters. If this argument is not specified, the file uses the source file name.

vpn-instance *vpn-instance-name*: Specifies the MPLS L3VPN instance to which the TFTP server belongs. The *vpn-instance-name* argument represents the VPN instance name, a case-sensitive string of 1 to 31 characters. If the TFTP server belongs to the public network, do not specify this option.

dscp *dscp-value*: Specifies the DSCP value for IPv6 to use in outgoing TFTP packets to indicate the packet transmission priority. The value range is 0 to 63. The default is 0.

source { **interface** *interface-type* *interface-number* | **ipv6** *source-ipv6-address* }: Specifies the source address for outgoing TFTP packets. If you do not specify this option, the device selects a source IPv6 address as defined in RFC 3484.

- **interface** *interface-type interface-number*: Specifies an interface by its type and number. The device will use the interface's IPv6 address as the source IPv6 address. For successful TFTP packet transmission, make sure the interface is up and is configured with an IPv6 address.

- **ipv6** *source-ipv6-address*: Specifies an IPv6 address. For successful TFTP packet transmission, make sure this address is the IPv6 address of an interface in up state on the device.

Usage guidelines

The source address specified with the **tftp ipv6** command takes precedence over the source address specified with the **tftp client ipv6 source** command.

The source address specified with the **tftp client ipv6 source** command applies to all TFTP connections. The source address specified with the **tftp ipv6** command applies only to the current TFTP connection.

Examples

Download the **new.bin** file from TFTP server 2001::1 and save the file as **new.bin**.

```
<Sysname> tftp ipv6 2001::1 get new.bin new.bin
Press CTRL+C to abort.
  % Total    % Received % Xferd  Average Speed   Time    Time     Time    Current
```

```
                                   Dload  Upload   Total   Spent    Left  Speed
100 13.9M  100 13.9M    0      0  1206k       0  0:00:11  0:00:11 --:--:-- 1206k
Writing file...Done.
```

For more information about the command output, see .

tftp-server acl

Use **tftp-server acl** to use an ACL to control the device's access to TFTP servers in an IPv4 network.

Use **undo tftp-server acl** to restore the default.

Syntax

tftp-server acl *acl-number*

undo tftp-server acl

Default

No ACL is used to control the device's access to TFTP servers.

Views

System view

Predefined user roles

network-admin

Parameters

acl-number: Specifies the number of a basic ACL, in the range of 2000 to 2999.

Usage guidelines

You can use an ACL to deny or permit the device's access to specific TFTP servers.

Examples

Allow the device to access only TFTP server 1.1.1.1.

```
<Sysname> system-view
[Sysname] acl basic 2000
[Sysname-acl-ipv4-basic-2000] rule permit source 1.1.1.1 0
[Sysname-acl-ipv4-basic-2000] quit
[Sysname] tftp-server acl 2000
```

tftp-server ipv6 acl

Use **tftp-server ipv6 acl** to use an ACL to control the device's access to TFTP servers in an IPv6 network.

Use **undo tftp-server ipv6 acl** to restore the default.

Syntax

tftp-server ipv6 acl *ipv6-acl-number*

undo tftp-server ipv6 acl

Default

No ACL is used to control the device's access to TFTP servers.

Views

System view

Predefined user roles

network-admin

Parameters

ipv6-acl-number: Specifies the number of a basic ACL, in the range of 2000 to 2999.

Usage guidelines

You can use an ACL to deny or permit the device's access to specific TFTP servers.

Examples

Allow the device to access only TFTP server 2001::1.

```
<Sysname> System-view
[Sysname] acl ipv6 basic 2001
[Sysname-acl-ipv6-basic-2001] rule permit source 2001::1/128
[Sysname-acl-ipv6-basic-2001] quit
[Sysname] tftp-server ipv6 acl 2001
```