

1 FTP Server Commands

Command	Function
clear ftp-server block-list	Clear the user lock entries in the FTP lock list.
ftp-server enable	Enable the FTP server.
ftp-server login timeout	Configure the FTP login timeout.
ftp-server login times	Configure the FTP login times.
ftp-server login permission enable	Enable read/write permission control of FTP users.
ftp-server login ip-block disable	Disable the IP address lock function.
ftp-server login username-block disable	Disable the username lock function.
ftp-server login silence-time	Configure the FTP lock time.
ftp-server login max-block-limit	Configure the maximum number of IP addresses that can be locked.
ftp-server topdir	Configure the top-level directory under which the FTP client can read and write files.
ftp-server timeout	Configure the idle timeout of an FTP session.
ftp-server username password	Configure the username and password for login to the FTP server.
ftp-server authentication	Enable AAA on the FTP server.
ftp-server max-sessions	Configure the maximum number of FTP sessions.
show ftp-server	Display status information of the FTP server.
show ftp-server list	Display the status information of FTP lock entries.

1.1 clear ftp-server block-list

Function

Run the **clear ftp-server block-list** command to clear the user lock entries in the FTP lock list.

Syntax

```
clear ftp-server block-list [ all | ip-address { ipv4-address | ipv6-address } [ vrf vrf_name ] | username user ]
```

Parameter Description

all: Clears all user lock entries in the FTP lock list.

ip-address: Clears a specified user lock entry based on the IP address.

ipv4-address: IPv4 address.

ipv6-address: IPv6 address.

vrf *vrf-name*: Specifies a VRF instance. If this parameter is not specified, the public network instance is used.

username *user*: Clears a specified user lock entry based on the username.

Command Modes

Privileged EXEC mode

Default Level

14

Usage Guidelines

After the lock function is enabled, if a user has been locked because the number of his/her login failures reaches the upper limit, a lock entry is generated. This command can be used to delete a specified entry based on the IP address or username, or delete all lock entries.

When both the IP address lock and username lock functions are enabled, if you want to unlock a locally configured username, check whether the IP address is also locked. If the IP address is also locked, unlock the IP address as well so that the user can log in to the FTP server normally.

Examples

The following example clears specified lock entries based on the IPv4 address 1.1.1.1 and VRF name ftp-vrf.

```
Hostname> enable
Hostname# clear ftp-server lock-list ip-address 1.1.1.1 vrf ftp-vrf
```

The following example clears specified lock entries based on the username admin.

```
Hostname> enable
Hostname# clear ftp-server lock-list username admin
```

The following example clears all lock entries.

```
Hostname> enable
Hostname# clear ftp-server lock-list username all
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- [ftp-server login ip-block disable](#)
- [ftp-server login username-block disable](#)

1.2 ftp-server enable

Function

Run the **ftp-server enable** command to enable the FTP server.

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

Run the **default** form of this command to restore the default configuration.

The FTP server is disabled by default.

Syntax

ftp-server enable

no ftp-server enable

default ftp-server enable

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

When the FTP server is enabled, you can connect to the FTP server through the FTP client and perform operations such as file upload or download.

The FTP client can access files on the FTP server only after this command and **ftp-server topdir** are configured.

Examples

The following example enables the FTP server, and allows the client to access only the **syslog** sub-directory.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ftp-server topdir /syslog
Hostname(config)# ftp-server enable
```

The following example disables the FTP server.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no ftp-server enable
```

Common Errors

N/A

Platform Description

N/A

Related Commands

- [ftp-server topdir](#)

1.3 ftp-server login timeout

Function

Run the **ftp-server login timeout** command to configure the FTP login timeout.

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

Run the **default** form of this command to restore the default configuration.

By default, the FTP login timeout is 2 minutes.

Syntax

ftp-server login timeout *time*

no ftp-server login timeout

default ftp-server login timeout

Parameter Description

time: FTP login timeout, in minutes. The value range is from 1 to 30.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

The login timeout refers to the maximum time that the user can stay online after the username and password are verified. If the username and password are not verified again before login timeout, the session will be terminated to ensure that other users can log in to the FTP server.

Examples

The following example sets the FTP login timeout to 5 minutes.

```
Hostname> enable
Hostname# configure terminal
```

```
Hostname(config)# ftp-server login timeout 5
```

The following example restores the default FTP login timeout to 2 minutes.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no ftp-server login timeout
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.4 ftp-server login times

Function

Run the **ftp-server login times** command to configure the FTP login times.

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

Run the **default** form of this command to restore the default configuration.

By default, the FTP login times is 3.

Syntax

ftp-server login times *times*

no ftp-server login times

default ftp-server times

Parameter Description

times: FTP login times. The value range is from 1 to 10.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

The FTP login times refers to the maximum number of times that the user's account and password can be verified during FTP login. By default, the FTP login times is 3, that is, a session will be terminated once you enter an incorrect username or password so that other users can go online.

Examples

The following example sets the FTP login times to 5.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ftp-server login times 5
```

The following example restores the default FTP login times to 3.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no ftp-server login times
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.5 ftp-server login permission enable

Function

Run the **ftp-server login permission enable** command to enable read/write permission control of FTP users.

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

Run the **default** form of this command to restore the default configuration.

By default, read/write permission control of FTP users is disabled.

Syntax

```
ftp-server login permission enable
no ftp-server login permission enable
default ftp-server login permission enable
```

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

After the read/write permission control function is enabled, the configured FTP user levels or AAA username levels can be used to control read/write permissions. For details about user levels and corresponding permissions, refer to the **ftp-server username password** command.

By default, all users have the read/write permissions. After permission control is enabled, if the user level is not configured, it is set to 1 by default and the user has only the read permission, that is, the user can only download data. You can configure FTP users of different levels as required for read/write permission control.

Examples

The following example enables read/write permission control of FTP users.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ftp-server login permission enable
```

The following example disables read/write permission control of FTP users.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no ftp-server login permission enable
```

Notifications

N/A

Related Commands

- [ftp-server username password](#)

1.6 ftp-server login ip-block disable

Function

Run the **ftp-server login ip-block disable** command to disable the IP address lock function.

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

Run the **default** form of this command to restore the default configuration.

The IP address lock function is enabled by default.

Syntax

```
ftp-server login ip-block disable
no ftp-server login ip-block disable
default ftp-server login ip-block disable
```

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

After the IP address lock function is enabled, if the cumulative number of login failures caused by entry of the incorrect username or password reaches the configured upper limit, the FTP session is terminated and the user's IP address is locked. In addition, all users cannot log in to the FTP server properly using this IP address or username.

Examples

The following example disables the IP address lock function.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ftp-server login ip-block disable
```

The following example enables the IP address lock function.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no ftp-server login ip-block disable
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- [ftp-server login username-block disable](#)

1.7 ftp-server login username-block disable

Function

Run the **ftp-server login username-block disable** command to disable the username lock function.

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

Run the **default** form of this command to restore the default configuration.

The username lock function is enabled by default.

Syntax

ftp-server login username-block disable

no ftp-server login username-block disable

default ftp-server login username-block disable

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

After the username lock function is enabled, if the cumulative number of login failures caused by entry of the incorrect password reaches the configured upper limit, the FTP session is terminated and the username is locked. The user cannot log in to the FTP server, but other users are not affected.

After the username lock function is enabled, only a locally configured FTP username can be locked. If the entered username is not configured, the IP address is locked instead.

Examples

The following example disables the username lock function.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ftp-server login username-block disable
```

The following example enables the username lock function.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no ftp-server login username-block disable
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- [ftp-server login ip-block disable](#)

1.8 ftp-server login silence-time

Function

Run the **ftp-server login silence-time** command to configure the FTP lock time.

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

Run the **default** form of this command to restore the default configuration.

By default, the FTP lock time is 5 minutes.

Syntax

ftp-server login silence-time *time*

no ftp-server login silence-time

default ftp-server login silence-time

Parameter Description

time: FTP lock time, in minutes. The value range is from 1 to 30.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

The FTP lock time refers to the duration that a user needs to wait for automatic unlocking after the user is locked because the number of the user's login failures reaches the upper limit. The locked user can log in to the FTP server only after the login silence time expires.

Examples

The following example sets the FTP lock time to 15 minutes.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ftp-server login silence-time 15
```

The following example restores the default FTP login timeout to 5 minutes.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no ftp-server login silence-time
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- [ftp-server login times](#)

1.9 ftp-server login max-block-limit

Function

Run the **ftp-server login max-block-limit** command to configure the maximum number of IP addresses that can be locked.

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

Run the **default** form of this command to restore the default configuration.

By default, up to 30 IP addresses can be locked.

Syntax

ftp-server login max-block-limit *limit*

no ftp-server login max-block-limit

default ftp-server login max-block-limit

Parameter Description

limit: Maximum number of IP addresses that can be locked. The value range is from 1 to 100.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

After the IP address lock function is enabled, if the number of locked IP addresses reaches the upper limit, the full lock function is enabled. By then, the FTP server no longer accepts the connection request from any user until the number of locked IP addresses is smaller than the upper limit.

Examples

The following example sets the maximum number of IP addresses that can be locked to 50.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ftp-server login max-block-limit 50
```

The following example restores the default maximum number of IP addresses that can be locked to 30.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no ftp-server login max-block-limit
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.10 ftp-server topdir

Function

Run the **ftp-server topdir** command to configure the top-level directory under which the FTP client can read and write files.

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

Run the **default** form of this command to restore the default configuration.

By default, no top-level directory under which the FTP client can read and write files is configured, that is, the client is prohibited from accessing any directory on the FTP server.

Syntax

```
ftp-server topdir { directory | flash: directory | tmp: directory | usb0: directory }
```

```
no ftp-server topdir
```

```
default ftp-server topdir
```

Parameter Description

directory: Top-level directory under which the FTP client can perform read/write operations.

flash: *directory*: Specifies the directory of the Flash memory.

tmp: *directory*: Specifies the directory of the temporary memory.

usb0: *directory*: Specifies the directory of the USB memory.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

The top-level directory of the FTP server limits the range of directories that can be accessed by the FTP client after login. You must specify the correct top-level directory so that the FTP client can access files on the FTP server.

If this command is not configured, the FTP client cannot access any files or directories on the FTP server.

Examples

The following example limits the top-level directory under which the FTP client can read and write files, and allows the FTP client to access only the **syslog** sub-directory.

```
Hostname> enable
```

```
Hostname# configure terminal
Hostname(config)# ftp-server enable
Hostname(config)# ftp-server topdir /syslog
```

The following example prohibits the FTP client from accessing any files on the FTP server.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no ftp-server topdir
```

Notifications

When no directory is configured, the following notification will be displayed:

```
%FTPSRV-USER: Haven't config topdir!
```

When a non-existing directory is configured, the following notification will be displayed:

```
Hostname(config)#ftp-server topdir ab
folder /ab don't exist!
```

Common Errors

- An invalid directory is configured.
- No directory is configured.

Platform Description

N/A

Related Commands

- [show ftp-server](#)

1.11 ftp-server timeout

Function

Run the **ftp-server timeout** command to configure the idle timeout of an FTP session.

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

Run the **default** form of this command to restore the default configuration.

By default, the idle timeout of an FTP session is 10 minutes.

Syntax

ftp-server timeout *time*

no ftp-server timeout

default ftp-server timeout

Parameter Description

time: Idle timeout, in minutes. The value range is from 1 to 3600.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

This command is used to configure the FTP session idle timeout. If no operation is performed on the current session within the specified time (that is, the session is idle), the FTP server considers that the connection has failed and therefore releases the connection with the user.

The session idle timeout refers to the time from the completion of the last FTP operation to the start of the next FTP operation in an FTP session. After the server responds to an FTP client command (for example, after a file is completely transferred), the server starts to count the idle time again, and stops counting when the next FTP client command arrives. Therefore, the configuration of the idle timeout does not affect time-consuming file transfer operations.

Examples

The following example sets the idle timeout to 5 minutes.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ftp-server timeout 5
```

The following example restores the default FTP login timeout to 10 minutes.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no ftp-server timeout
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- [show ftp-server](#)

1.12 ftp-server username password

Function

Run the **ftp-server username password** command to configure the username and password for login to the FTP server.

Run the **no** form of this command to lift the restrictions on users who log in to the FTP server.

Run the **default** form of this command to restore the default configuration.

By default, no username and password are configured for login to the FTP server, that is, no login users are restricted.

Syntax

```
ftp-server username username [ privilege level ] password [ type ] password
```

```
no ftp-server username username
```

```
default ftp-server username username
```

Parameter Description

username: Username used for login. The value is a case-sensitive string of 1 to 64 characters, and no space is allowed in the middle of the string. The username may contain English letters, half-width numbers, and half-width symbols.

password: Password used for login. The password must contain letters or numbers. Spaces can appear before or after the password, but will be ignored. Spaces in the middle of the password are regarded as part of the password. A plain-text password is a string of 1 to 25 characters, and a cipher-text password is a string of 4 to 52 characters.

privilege level: Specifies the level of the login user, which is used to control the read/write permissions of the user. The value range is from 0 to 15, and the default value is **1**. The levels are consistent with those defined by AAA. The range from 0 to 5 indicates read only, the range from 6 to 10 indicates write only, and the range from 11 to 15 indicates read and write.

type: 0 indicates not encrypted, and 7 indicates encrypted.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

You must configure a username and password for login to the FTP server to authenticate the client. The password and the user must be in one-to-one correspondence. The FTP server does not support login of anonymous users. If the username configuration is cleared, the FTP client cannot pass the authentication of the FTP server. The FTP client must provide both the correct username and password to log in to the FTP server.

You can configure at most 10 users for an FTP server.

A user with the read-only permission can only download files from the FTP server. A user with the write-only permission can only upload files to the server. A user with both the read and write permissions can upload and download files to or from the FTP server.

Examples

The following example sets the username to **user** and password to **pass** to log in to the FTP server.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ftp-server username user password pass
```

The following example lifts the restrictions on users who log in to the FTP server.

```
Hostname> enable
```

```

Hostname# configure terminal
Hostname(config)# no ftp-server username user

```

The following example sets the username to **user**, password to **pass**, and user level to **11**.

```

Hostname> enable
Hostname# configure terminal
Hostname(config)# ftp-server username user privilege 11 password pass

```

Notifications

When a user tries to log in to the FTP server before a username is configured on the server, the following notification will be displayed:

```
%FTPSRV-USER: Haven't config username!
```

When the configured username is too long, the following notification will be displayed:

```

Hostname (config) # $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
Username abcdefghijklmn, $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
NULL or too long, max length is 64.

```

When a user tries to log in to the FTP server before a password is configured on the server, the following notification will be displayed:

```
%FTPSRV-PASS: Haven't config password!
```

When the configured cipher-text password is too short, the following notification will be displayed:

```

Hostname (config) # ftp-server username user password 7 2
Invalid encrypted password, min length is 4, max length is 52.

```

When the configured plain-text password is too long, the following notification will be displayed:

```

Hostname (config) # ftp-server username user password abcdefghijklmnopqrstuvwxyz
% Password is too long, max length is 25

```

Common Errors

- The configured username contains invalid characters, or is too long.
- A user tries to log in to the FTP server before a username is configured on the server.
- A user tries to log in to the FTP server before a password is configured on the server.
- The configured password is too short or too long.
- The password contains invalid characters.

Platform Description

N/A

Related Commands

- [show ftp-server](#)

1.13 ftp-server authentication

Function

Run the **ftp-server authentication** command to enable AAA on the FTP server.

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

Run the **default** form of this command to restore the default configuration.

By default, FTP does not support AAA login authentication.

Syntax

ftp-server authentication { **default** | *name* }

no ftp-server authentication

default ftp-server authentication

Parameter Description

default: Uses the default authentication mode in the AAA configuration.

name: Specified name in the AAA configuration.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

This command takes effect only after FTP is enabled.

Enable the AAA function before configuring this command.

Examples

The following example enables AAA on the FTP server.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ftp-server enable
Hostname(config)# ftp-server topdir tmp:
Hostname(config)# ftp-server authentication 111
Hostname(config)# aaa new-model
Hostname(config)# aaa authentication ftp 111 local
```

Related Commands

- [ftp-server topdir](#)
- **aaa new-model** (Security/AAA)
- **aaa authentication ftp** (Security/AAA)

1.14 ftp-server max-sessions

Function

Run the **ftp-server max-sessions** command to configure the maximum number of FTP sessions.

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

Run the **default** form of this command to restore the default configuration.

By default, the maximum number of FTP sessions is 20.

Syntax

ftp-server max-sessions *session*

no ftp-server max-sessions

default ftp-server max-sessions

Parameter Description

session: Maximum number of user connections allowed. The value range is from 1 to 20.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

The maximum number of FTP sessions refers to the maximum number of users that can be concurrently connected to the FTP server. The default value is 20. That is, if the number of FTP sessions reaches 20, no more user can log in to the FTP server unless a session is closed.

Examples

The following example sets the maximum number of FTP sessions to 5.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ftp-server max-sessions 5
```

The following example restores the default maximum number of FTP sessions to 20.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no ftp-server max-sessions
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.15 show ftp-server

Function

Run the **show ftp-server** command to display status information of the FTP server.

Syntax

```
show ftp-server
```

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

This command is used to display status information of the FTP server, including the server startup status, top-level directory, and user information (username, password, and number of connections) of the FTP server. If a connection is configured, the following information is also displayed: IP address, port, transmission type, and active or passive mode.

Examples

The following example displays status information of the FTP server.

```

Hostname> enable
Hostname# show ftp-server
      ftp-server information
=====
enable : Y
topdir : tmp:/
timeout: 10min
username:aaaa      password:(PLAIN)bbbb      connect num[2]
  [0]trans-type:BINARY (ctrl)server IP:192.168.21.100[21]
                        client IP:192.168.21.26[3927]
  [1]trans-type:ASCII (ctrl)server IP:192.168.21.100[21]
                        client IP:192.168.21.26[3929]
username:a1        password:(PLAIN)bbbb      connect num[0]
username:a2        password:(PLAIN)bbbb      connect num[0]
username:a3        password:(PLAIN)bbbb      connect num[0]
username:a4        password:(PLAIN)bbbb      connect num[0]
username:a5        password:(PLAIN)bbbb      connect num[0]
username:a6        password:(PLAIN)bbbb      connect num[0]
username:a7        password:(PLAIN)bbbb      connect num[0]
username:a8        password:(PLAIN)bbbb      connect num[0]
username:a9        password:(PLAIN)bbbb      connect num[0]

```

Table 1-1 Output Fields of the show ftp-server Command

Field	Description
enable	Whether the function is enabled
topdir	Top-level directory
timeout	Login timeout
username	Username
password	Password
connect num	Current number of client connections
trans-type	Transmission type
BINARY	Binary transmission mode
ASCII	Text transmission mode
server IP	IP address of the server
client IP	IP address of the client

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.16 show ftp-server list

Function

Run the **show ftp-server list** command to display the status information of FTP lock entries.

Syntax

```
show ftp-server { ip-block | username-block } list
```

Parameter Description

ip-block: Displays the IP address of the lock entry.

username-block: Displays the username of the lock entry.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

FTP lock entries are classified into two types:

- IP address lock entries, which contain the following information: locked IP address, VRF name, and remaining time for unlocking.
- Username lock entries, which contain the following information: locked username and remaining time for unlocking.

Examples

The following example displays the IP address lock entries.

```

Hostname> enable
Hostname# show ftp-server ip-block list
-----
Address                                     VRF Name
Unlock Interval(seconds)
-----
172.30.33.50                               default
1720

```

Table 1-1Output Fields of the show ftp-server ip-block list Command

Field	Description
Address	Locked IP address
VRF Name	Name of the VRF where the locked IP address resides. The default value is default .
Unlock Interval(seconds)	Remaining time for unlocking, in seconds

The following example displays the username lock entries.

```

Hostname> enable
Hostname# show ftp-server username-block list
-----
Username                                     Unlock
Interval(seconds)
-----
admin                                         1720

```

Table 1-2Output Fields of the show ftp-server username-block list Command

Field	Description
Username	Locked username
Unlock Interval(seconds)	Remaining time for unlocking, in seconds

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- [ftp-server login ip-block disable](#)
- [ftp-server login username-block disable](#)