



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'sftp.1' command

\$ man sftp.1

SFTP(1) BSD General Commands Manual SFTP(1)

NAME

sftp ? OpenSSH secure file transfer

SYNOPSIS

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sftp [-46AaCfNpqrv] [-B buffer_size] [-b batchfile] [-c cipher]
      [-D sftp_server_path] [-F ssh_config] [-i identity_file]
      [-J destination] [-l limit] [-o ssh_option] [-P port]
      [-R num_requests] [-S program] [-s subsystem | sftp_server]
      destination
```

DESCRIPTION

sftp is a file transfer program, similar to ftp(1), which performs all operations over an encrypted ssh(1) transport. It may also use many features of ssh, such as public key authentication and compression.

The destination may be specified either as [user@]host[:path] or as a URI in the form sftp://[user@]host[:port]/[path].

If the destination includes a path and it is not a directory, sftp will retrieve files automatically if a non-interactive authentication method is used; otherwise it will do so after successful interactive authentication.

If no path is specified, or if the path is a directory, sftp will log in to the specified host and enter interactive command mode, changing to the remote directory if one was specified. An optional trailing slash can be used to force the path to be interpreted as a directory.

Since the destination formats use colon characters to delimit host names from path names or port numbers, IPv6 addresses must be enclosed in square brackets to avoid ambiguity.

The options are as follows:

- 4 Forces sftp to use IPv4 addresses only.
- 6 Forces sftp to use IPv6 addresses only.
- A Allows forwarding of ssh-agent(1) to the remote system. The default is not to forward an authentication agent.
- a Attempt to continue interrupted transfers rather than overwriting existing partial or complete copies of files. If the partial contents differ from those being transferred, then the resultant file is likely to be corrupt.

-B buffer_size

Specify the size of the buffer that sftp uses when transferring files. Larger buffers require fewer round trips at the cost of higher memory consumption. The default is 32768 bytes.

-b batchfile

Batch mode reads a series of commands from an input batchfile instead of stdin. Since it lacks user interaction it should be used in conjunction with non-interactive authentication to obviate the need to enter a password at connection time (see sshd(8) and ssh-keygen(1) for details).

A batchfile of `?-?` may be used to indicate standard input. sftp will abort if any of the following commands fail: get, put, reget, reput, rename, ln, rm, mkdir, chdir, ls, lchdir, chmod, chown, chgrp, lpwd, df, symlink, and lmkdir.

Termination on error can be suppressed on a command by command basis by prefixing the command with a `?-?` character (for example, `-rm /tmp/blah*`). Echo of the command may be suppressed by prefixing the command with a `?@?` character. These two prefixes may be combined in any order, for example `-@ls /bsd`.

- C Enables compression (via ssh's -C flag).

-c cipher

Selects the cipher to use for encrypting the data transfers.

This option is directly passed to ssh(1).

-D sftp_server_path

Connect directly to a local sftp server (rather than via ssh(1)).

This option may be useful in debugging the client and server.

-F ssh_config

Specifies an alternative per-user configuration file for ssh(1).

This option is directly passed to ssh(1).

-f Requests that files be flushed to disk immediately after transfer. When uploading files, this feature is only enabled if the server implements the "fsync@openssh.com" extension.

-i identity_file

Selects the file from which the identity (private key) for public key authentication is read. This option is directly passed to ssh(1).

-J destination

Connect to the target host by first making an sftp connection to the jump host described by destination and then establishing a TCP forwarding to the ultimate destination from there. Multiple jump hops may be specified separated by comma characters. This is a shortcut to specify a ProxyJump configuration directive.

This option is directly passed to ssh(1).

-l limit

Limits the used bandwidth, specified in Kbit/s.

-N Disables quiet mode, e.g. to override the implicit quiet mode set by the -b flag.

-o ssh_option

Can be used to pass options to ssh in the format used in ssh_config(5). This is useful for specifying options for which there is no separate sftp command-line flag. For example, to specify an alternate port use: sftp -oPort=24. For full details of the options listed below, and their possible values, see ssh_config(5).

AddressFamily
BatchMode
BindAddress
BindInterface
CanonicalDomains
CanonicalizeFallbackLocal
CanonicalizeHostname
CanonicalizeMaxDots
CanonicalizePermittedCNAMEs
CASignatureAlgorithms
CertificateFile
CheckHostIP
Ciphers
Compression
ConnectionAttempts
ConnectTimeout
ControlMaster
ControlPath
ControlPersist
GlobalKnownHostsFile
GSSAPIAuthentication
GSSAPIDelegateCredentials
HashKnownHosts
Host
HostbasedAcceptedAlgorithms
HostbasedAuthentication
HostKeyAlgorithms
HostKeyAlias
Hostname
IdentitiesOnly
IdentityAgent
IdentityFile
IPQoS

KbdInteractiveAuthentication
KbdInteractiveDevices
KexAlgorithms
KnownHostsCommand
LogLevel
MACs
NoHostAuthenticationForLocalhost
NumberOfPasswordPrompts
PasswordAuthentication
PKCS11Provider
Port
PreferredAuthentications
ProxyCommand
ProxyJump
PubkeyAcceptedAlgorithms
PubkeyAuthentication
RekeyLimit
SendEnv
ServerAliveInterval
ServerAliveCountMax
SetEnv
StrictHostKeyChecking
TCPKeepAlive
UpdateHostKeys
User
UserKnownHostsFile
VerifyHostKeyDNS

-P port

Specifies the port to connect to on the remote host.

-p Preserves modification times, access times, and modes from the original files transferred.

-q Quiet mode: disables the progress meter as well as warning and diagnostic messages from ssh(1).

-R num_requests

Specify how many requests may be outstanding at any one time.

Increasing this may slightly improve file transfer speed but will increase memory usage. The default is 64 outstanding requests.

-r Recursively copy entire directories when uploading and download?

ing. Note that sftp does not follow symbolic links encountered in the tree traversal.

-S program

Name of the program to use for the encrypted connection. The program must understand ssh(1) options.

-s subsystem | sftp_server

Specifies the SSH2 subsystem or the path for an sftp server on the remote host. A path is useful when the remote sshd(8) does not have an sftp subsystem configured.

-v Raise logging level. This option is also passed to ssh.

INTERACTIVE COMMANDS

Once in interactive mode, sftp understands a set of commands similar to those of ftp(1). Commands are case insensitive. Pathnames that contain spaces must be enclosed in quotes. Any special characters contained within pathnames that are recognized by glob(3) must be escaped with backslashes (?\\?).

bye Quit sftp.

cd [path]

Change remote directory to path. If path is not specified, then change directory to the one the session started in.

chgrp [-h] grp path

Change group of file path to grp. path may contain glob(7) characters and may match multiple files. grp must be a numeric GID. If the -h flag is specified, then symlinks will not be followed.

Note that this is only supported by servers that implement the "lsetstat@openssh.com" extension.

chmod [-h] mode path

Change permissions of file path to mode. path may contain

glob(7) characters and may match multiple files.

If the -h flag is specified, then symlinks will not be followed.

Note that this is only supported by servers that implement the "lsetstat@openssh.com" extension.

chown [-h] own path

Change owner of file path to own. path may contain glob(7) char?

acters and may match multiple files. own must be a numeric UID.

If the -h flag is specified, then symlinks will not be followed.

Note that this is only supported by servers that implement the "lsetstat@openssh.com" extension.

df [-hi] [path]

Display usage information for the filesystem holding the current directory (or path if specified). If the -h flag is specified, the capacity information will be displayed using "human-readable" suffixes. The -i flag requests display of inode information in addition to capacity information. This command is only supported on servers that implement the ?statvfs@openssh.com? extension.

exit Quit sftp.

get [-afpR] remote-path [local-path]

Retrieve the remote-path and store it on the local machine. If the local path name is not specified, it is given the same name it has on the remote machine. remote-path may contain glob(7) characters and may match multiple files. If it does and local-path is specified, then local-path must specify a directory.

If the -a flag is specified, then attempt to resume partial transfers of existing files. Note that resumption assumes that any partial copy of the local file matches the remote copy. If the remote file contents differ from the partial local copy then the resultant file is likely to be corrupt.

If the -f flag is specified, then fsync(2) will be called after the file transfer has completed to flush the file to disk.

If the -p flag is specified, then full file permissions and ac?

cess times are copied too.

If the -R flag is specified then directories will be copied recursively. Note that sftp does not follow symbolic links when performing recursive transfers.

help Display help text.

lcd [path]

Change local directory to path. If path is not specified, then change directory to the local user's home directory.

lls [ls-options [path]]

Display local directory listing of either path or current directory if path is not specified. ls-options may contain any flags supported by the local system's ls(1) command. path may contain glob(7) characters and may match multiple files.

mkdir path

Create local directory specified by path.

ln [-s] oldpath newpath

Create a link from oldpath to newpath. If the -s flag is specified the created link is a symbolic link, otherwise it is a hard link.

lpwd Print local working directory.

ls [-1afhlNrSt] [path]

Display a remote directory listing of either path or the current directory if path is not specified. path may contain glob(7) characters and may match multiple files.

The following flags are recognized and alter the behaviour of ls accordingly:

- 1 Produce single columnar output.
- a List files beginning with a dot (?.?).
- f Do not sort the listing. The default sort order is lexicographical.
- h When used with a long format option, use unit suffixes: Byte, Kilobyte, Megabyte, Gigabyte, Terabyte, Petabyte, and Exabyte in order to reduce the number of digits to

four or fewer using powers of 2 for sizes (K=1024, M=1048576, etc.).

- l Display additional details including permissions and ownership information.
- n Produce a long listing with user and group information presented numerically.
- r Reverse the sort order of the listing.
- S Sort the listing by file size.
- t Sort the listing by last modification time.

lumask umask

Set local umask to umask.

mkdir path

Create remote directory specified by path.

progress

Toggle display of progress meter.

put [-afpR] local-path [remote-path]

Upload local-path and store it on the remote machine. If the remote path name is not specified, it is given the same name it has on the local machine. local-path may contain glob(7) characters and may match multiple files. If it does and remote-path is specified, then remote-path must specify a directory.

If the -a flag is specified, then attempt to resume partial transfers of existing files. Note that resumption assumes that any partial copy of the remote file matches the local copy. If the local file contents differ from the remote local copy then the resultant file is likely to be corrupt.

If the -f flag is specified, then a request will be sent to the server to call fsync(2) after the file has been transferred.

Note that this is only supported by servers that implement the "fsync@openssh.com" extension.

If the -p flag is specified, then full file permissions and access times are copied too.

If the -R flag is specified then directories will be copied recursively.

cursively. Note that sftp does not follow symbolic links when performing recursive transfers.

`pwd` Display remote working directory.

`quit` Quit sftp.

`reget [-fpR] remote-path [local-path]`

Resume download of remote-path. Equivalent to `get` with the `-a` flag set.

`reput [-fpR] local-path [remote-path]`

Resume upload of local-path. Equivalent to `put` with the `-a` flag set.

`rename oldpath newpath`

Rename remote file from oldpath to newpath.

`rm path`

Delete remote file specified by path.

`rmdir path`

Remove remote directory specified by path.

`symlink oldpath newpath`

Create a symbolic link from oldpath to newpath.

`version`

Display the sftp protocol version.

`!command`

Execute command in local shell.

`!` Escape to local shell.

`?` Synonym for help.

SEE ALSO

`ftp(1)`, `ls(1)`, `scp(1)`, `ssh(1)`, `ssh-add(1)`, `ssh-keygen(1)`, `ssh_config(5)`,
`glob(7)`, `sftp-server(8)`, `sshd(8)`

T. Ylonen and S. Lehtinen, SSH File Transfer Protocol, draft-ietf-secsh-filexfer-00.txt, January 2001, work in progress material.