Logging In to a Remote System to Copy a File (sftp)

The `sftp` command is an interactive file transfer program with a user interface similar to `ftp`. However, `sftp` uses the SSH File Transfer Protocol to create a secure connection to the server. Not all options available with the `ftp` command are included in the `sftp` command, but many of them are.

Essential `sftp` Commands

The following table lists essential `sftp` commands.

Table 3-2 Essential `sftp` Commands

Command	Description
`sftp` *remote-system*	Establishes an `sftp` connection to a remote system. For instructions, see How to Open and Close an `sftp` Connection to a Remote System.
`sftp` *remote-system:file*	Copies the named *file* from *remote-system*.
`bye`	Quits the `sftp` session.
`help`	Lists all `sftp` commands.
`ls`	Lists the contents of the remote working directory.
`lls`	Lists the contents of the local working directory.
`pwd`	Displays the name of the remote working directory.
`cd`	Changes the remote working directory.
`lcd`	Changes the local working directory.
`mkdir`	Creates a directory on the remote system.
`rmdir`	Deletes a directory on the remote system.
`get`	Copies a file from the remote working directory to the local working directory.
`put`	Copies a file from the local working directory to the remote working directory.
`delete`	Deletes a file from the remote working directory.

For more information, see the `sftp(1)` man page.

How to Open and Close an `sftp` Connection to a Remote System

1. **Open a connection to a remote system by using the `sftp` command.**

   ```
   $ sftp remote-system
   ```

   If the connection succeeds, a confirmation message and prompt are displayed.

2. **If prompted, type your password.**

   ```
   Password: password
   ```

   If the `sftp` interface accepts your password, it displays a confirmation message and the (`sftp>`) prompt.

   You can now use any of the commands that are supplied by the `sftp` interface, including help. The principal commands are summarized in [Table 3-2](#).

3. **Close the `sftp` connection.**

   ```
   sftp> bye
   ```

Example 3-2 Opening an `sftp` Connection to a Remote System

This `sftp` session was established to connect to the remote system `pluto`:

```
$ sftp pluto
Connecting to pluto.
Password: password
sftp>
```

How to Copy Files From a Remote System (`sftp`)

1. **Establish an `sftp` connection.**

   See [How to Open and Close an `sftp` Connection to a Remote System](#).

2. (Optional) **Change to a directory on the local system where you want the files copied to.**

   ```
   sftp> lcd target-directory
   ```

3. **Change to the source directory.**

   ```
   sftp> cd source-directory
   ```

4. **Ensure that you have read permission for the source files.**

   ```
   sftp> ls -l
   ```

5. **To copy a file, use the `get` command.**

   Metacharacters may be used with the `get` command.

   ```
   sftp> get filename
   ```

6. **Close the `sftp` connection.**

   ```
   sftp> bye
   ```

Example 3-3 Copying a File From a Remote System (`sftp`)

In this example, the user opens an `sftp` connection to the system `pluto`, and uses the `get` command to copy a single file from the `/tmp` directory.

```
$ sftp pluto
Connecting to pluto...
Password: xxx
sftp> lcd /tmp
sftp> cd /tmp
sftp> ls
filea
files
ps_data
sftp> get filea
/tmp/filea                                100%  494      0.5KB/s   00:00
sftp> bye
```

How to Copy Files to a Remote System (`sftp`)

1. **Change to the source directory on the local system.**

   The directory from which you type the `sftp` command is the local working directory and thus the source directory for this operation.

2. **Establish an `sftp` connection.**

   See How to Open and Close an `sftp` Connection to a Remote System.

3. **You can change to the target directory.**

   ```
   sftp> cd target-directory
   ```

4. **Ensure that you have write permission in the target directory.**

   ```
   sftp> ls -l target-directory
   ```

5. **To copy a single file, use the `put` command.**

   Metacharacters may be used with the `get` command.

   ```
   sftp> put filename
   ```

6. **Close the `sftp` connection.**

   ```
   sftp> bye
   ```

Example 3-4 Copying a File to a Remote System (`sftp`)

In this example, the user opens an `sftp` connection to the system `pluto`, and uses the `put` command to copy a file from their system to the `/tmp` directory on system `pluto`.

```
$ cd /tmp
$ sftp pluto
Password: xxx
sftp> cd /tmp
sftp> put filef
uploading filef to /tmp/filef
filef                                    100%  325      0.3KB/s   00:00
sftp> ls
filea
filef
files
sftp> bye
```