

## Using SFTP (Secure File Transfer Protocol) to Move Files Between UNIX Servers

**sftp** is the next generation of a longstanding UNIX tool called ftp or file transfer protocol. You can use sftp to transfer files between UNIX servers (such as the Rutgers University servers which house Eden and RCI or the SoE server which houses coewww).

sftp is an easy protocol to use. The tricky part comes in remembering where you are in both your account and the remote account you are accessing.

Let's say, for example, you have a public\_html or an index.html subdirectory in your Eden account and you have another UNIX account either at Rutgers or some other host (server) which has some .html files that you would like to retrieve and place in your public\_html (or index.html) subdirectory for future use in a website. Let's also assume, for this example, that the .html files located on your account on the remote host reside in your home directory. How do you get those files from your home directory of the remote host to your public\_html (or index.html) subdirectory on Eden?

1. First you must log into Eden and get to your home directory.
2. Change directories to public\_html `er1% cd public_html`
3. Check to see that the "cd" command worked by typing pwd. If your path ends in public\_html, you are in that subdirectory.
4. At the Unix prompt, type the following:  
`coewww% ~/public_html >sftp remotehostname (ex: rci.rutgers.edu)`

That action should bring up something like the following:

Connecting to rci.rutgers.edu...

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hcrawfor@rci.rutgers.edu's password: **type your remote host password here (and then hit <enter>)**

That action will return the following UNIX prompt:

sftp>

5. At this point in time, you are simultaneously working in your Eden `public_html` subdirectory and your remote host home directory. If you want to change into a different directory of your remote host, you simply use the `cd` command. But, for the sake of this example, you will stay in your remote host home directory.

6. Use the `ls` command to list the files in your home directory and write down the names of the files you want to retrieve.

7. To retrieve the desired files, you will use the `get` command:

```
sftp> get venture.html <enter>
```

That action will bring up something like the following message:

```
Fetching /underworld/home2/u8/hcrawfor/venture.html to venture.html
/underworld/home2/u8/hcrawfor/venture.html 100% 3734 0.0KB/s 00:00
sftp>
```

This message indicates that the entire file (100%) was “fetched” or “gotten”.

You will have to repeat this process for each file that you want to retrieve from your remote host home directory.

8. It is important to note that at the `sftp>` prompt you can also `put` files from your Eden `public_html` subdirectories into your home directory located on the remote host. Let’s say that you want to put a file called `icfmission.html` (located in your Eden `public_html` subdirectory) into your home directory located on the remote host. To do this, you would use the `put` command:

```
sftp> put icfmission.html <enter>
```

That action would bring up something like the following message:

```
Uploading icfmission.html to /underworld/home2/u8/hcrawfor/icfmission.html
icfmission.html 100% 1679 0.0KB/s 00:00
sftp>
```

This message indicates that the entire file (100%) was “uploaded” or “put” into your home directory.

9. When you are done transferring files, type `quit` at the `sftp>` prompt. This will close the session on the remote host but you will still be live on your local host.

10. Whenever you need a list of commands related to sftp, simply type **help** or **?** at the sftp> command prompt.

11. Lastly, the Andersen UNIX book gives a broad overview of ftp on pages 266-271. This overview is correct in a general sense (especially with regard to the **get**, **put**, and **quit** commands) However, the notes above are specific to the UNIX servers at Rutgers.