Accesing your home directory

Overview

Accessing your home directory on the HUB is easy with the three methods described in this section. While sFTP is the most common, you will find which method works best for you.
sFTP

Accessing your home directory via sFTP

sFTP, or secure FTP, is a program that uses SSH to transfer files. Unlike standard FTP, it encrypts both commands and data, preventing passwords and sensitive information from being transmitted in the clear over the network. It is functionally similar to FTP, but because it uses a different protocol, you can't use a standard FTP client to talk to an sFTP server, nor can you connect to an FTP server with a client that supports only sFTP.

The following tutorial should help you in using sFTP to connect to and from your HUBzero server(s).

**Warning:** Most accounts do not have SSH/sFTP access initially. Your system administrator must grant your account access before you will be able to connect.

**Graphical Clients**

Using graphical SFTP clients simplifies file transfers by allowing you to transmit files simply by dragging and dropping icons between windows. When you open the program, you will have to enter the name of the host (e.g., yourhub.org) and your HUB username and password.

**Windows Clients**

- WinSCP
- BitKinex
- FileZilla
- PuTTY

**Mac OSX Clients**

- Transmit
- Fetch
- Cyberduck
- Flow
- Fugu

**Command-line**

You can use command line SFTP from your Unix account, or from your Mac OS X or Unix workstation. To start an SFTP session, at the command prompt, enter:

```
yourmachine:~ you$ sftp username@host
yourmachine:~ you$ username@host password:

host ~
```
### Some standard commands for command-line sFTP

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>cd</code></td>
<td>Change the directory on the remote computer</td>
</tr>
<tr>
<td><code>chmod</code></td>
<td>Change the permissions of files on the remote computer</td>
</tr>
<tr>
<td><code>chown</code></td>
<td>Change the owner of files on the remote computer</td>
</tr>
<tr>
<td><code>dir</code> (or <code>ls</code>)</td>
<td>List the files in the current directory on the remote computer</td>
</tr>
<tr>
<td><code>exit</code> (or <code>quit</code>)</td>
<td>Close the connection to the remote computer and exit SFTP</td>
</tr>
<tr>
<td><code>get</code></td>
<td>Copy a file from the remote computer to the local computer</td>
</tr>
<tr>
<td><code>help</code> (or <code>?</code>)</td>
<td>Get help on the use of SFTP commands</td>
</tr>
<tr>
<td><code>lcd</code></td>
<td>Change the directory on the local computer</td>
</tr>
<tr>
<td><code>lls</code></td>
<td>See a list of the files in the current directory on the local computer</td>
</tr>
<tr>
<td><code>lmkdir</code></td>
<td>Create a directory on the local computer</td>
</tr>
<tr>
<td><code>ln</code> (or <code>symlink</code>)</td>
<td>Create a symbolic link for a file on the remote computer</td>
</tr>
<tr>
<td><code>lpwd</code></td>
<td>Show the current directory (present working directory) on the local computer</td>
</tr>
<tr>
<td><code>lumask</code></td>
<td>Change the local umask value</td>
</tr>
<tr>
<td><code>mkdir</code></td>
<td>Create a directory on the remote computer</td>
</tr>
<tr>
<td><code>put</code></td>
<td>Copy a file from the local computer to the remote computer</td>
</tr>
<tr>
<td><code>pwd</code></td>
<td>Show the current directory (present working directory) on the remote computer</td>
</tr>
<tr>
<td><code>rename</code></td>
<td>Rename a file on the remote host</td>
</tr>
<tr>
<td><code>rm</code></td>
<td>Delete files from the remote computer</td>
</tr>
<tr>
<td><code>rmdir</code></td>
<td>Remove a directory on the remote host (the directory usually has to be empty)</td>
</tr>
<tr>
<td><code>version</code></td>
<td>Display the SFTP version</td>
</tr>
<tr>
<td><code>!</code></td>
<td>In Unix, exit to the shell prompt, where you can enter commands. Enter <code>exit</code> to get back to SFTP. If you follow <code>!</code> with a command (e.g., <code>!pwd</code>), SFTP will execute the command without dropping you to the Unix prompt.</td>
</tr>
</tbody>
</table>
WebDAV

Accessing your home directory via WebDAV

WebDAV is the Distributed Authoring and Versioning extension to the standard HTTP/HTTPS web protocol. It allows a client to browse a remote filesystem, usually with a graphical browser that makes it appear that your files are on your desktop. You may access your hub storage using only the secure version of this service (HTTPS). We do not support HTTP. Most modern computer platforms support HTTPS transport for WebDAV with either small adjustments or freely available software.

Linux/Unix

If you use the KDE graphical desktop environment, you can access your hub storage with the Konqueror browser by typing the special URL webdavs://webdav.hubname.org/webdav/ (open source: webdavs://hubname.org/webdav/) into the Location field of the browser. It will prompt you for your hub login and password. Thereafter, you traverse your home directory by clicking on folders and you can drag and drop files to your desktop.

Cadaver is a text-mode WebDAV browser. It can be used if it is compiled with SSL support. Invoke it with the command cadaver https://webdav.hubname.org/webdav/ (open source: https://hubname.org/webdav/) and it will prompt you for your hub login and password. You can then use it in a manner similar to FTP.

If you are using Linux, you can use the davfs kernel module to mount your hub storage area as a local filesystem.

Macintosh

MacOS versions 10.4 and higher support HTTPS transport for WebDAV using the Finder.

1. Select the Go menu in the Finder and choose "Connect to Network Server".
2. Enter the URL https://webdav.hubname.org/webdav/ (open source: https://hubname.org/webdav/) into the address field.
3. When prompted, enter your Network ID credentials.

You should now be able to drag files and folders between your computer and the site to which you just connected.

Windows 10, 8.1, 8 and 7

Windows 10, 8.1 and 8 use the WebClient Services to connect to a WebDAV Servers, by default the WebClient service is disabled, so we need to enable it.
ACCESING YOUR HOME DIRECTORY

1. From the Start menu, choose Control Panel, then System and Security, then Administrative Tools, and then Services.
2. Scroll down to WebClient, set the service to Automatic, and then click Apply.
3. If the service is not already running, click Start.
4. Click OK to close the Control Panel and close other windows.

Windows 10

To set up a WebDAV connection in Windows 10:

1. From the Start Menu go to File Explorer and select This PC on the left hand pane
2. Select Computer from the top ribbon
3. Click on Map Network Drive
4. Click Connect to a Web site that you can use to store your documents and pictures.
5. Click Next
6. Select Choose another network location and click Next
7. Enter "https://webdav.hubname.org/webdav/" (open source: https://hubname.org/webdav/). Replace "hubname.org" with the URL of the destination hub and click Next
8. Enter your password, and click Ok
9. Click Next, then Finish
10. When prompted, enter your Hub credentials.
11. You should see a new Network Drive under your Computer/This PC. Double click on it to open.

You should now be able to drag files and folders between your computer and the hub via the network drive to which you just connected.

Windows 8.x

To set up a WebDAV connection in Windows 8.x:

1. Using the Search interface in tile mode, locate and select the Computer tile.
2. In the quick menu at the top of the screen, click Map Network Drive.
3. In the "Folder" field, enter a URL that points to the destination hub similar to the following URL "https://webdav.hubname.org/webdav/" (open source: https://hubname.org/webdav/). Replace "hubname.org" with the URL of the destination hub.
4. Select the Connect using different credentials box, and then click Finish.
5. When prompted, enter your Hub credentials.
6. You should see a new Network Drive under your Computer/This PC. Double click on it to open.

You should now be able to drag files and folders between your computer and the hub via the
network drive to which you just connected.

Windows 7

To set up a WebDAV connection in Windows 7.

1. From the Start menu, right-click Computer, and select Map network drive.
2. Enter a URL that points to the destination hub similar to the following URL "https://webdav.hubname.org/webdav/" (open source: https://hubname.org/webdav/). Replace "hubname.org" with the URL of the destination hub. Click finish.
3. When prompted, enter your Hub credentials.
4. You should see a new Network Drive under your Computer/This PC. Double click on it to open.

You should now be able to drag files and folders between your computer and the hub via the network drive to which you just connected.

If you have difficulty dragging and dropping, right-click the file or folder you want to copy, and choose Copy. Then right-click the directory you want to put it in, and choose Paste.
filexfer (in Workspace tool)

Accessing your home directory files via filexfer (in Workspace tool)

Filexfer, short for ‘file transfer’, is a utility that you can call from within the workspace tool to transfer a file into your home directory from your local machine or download a file from your home directory. Type 'filexfer' in the xterm provided to you when you start the workspace tool. You should now see the filexfer GUI as it appears in the image below.

![Filexfer GUI](image)

Click on "Upload" or "Download" for the desired action. Please note, that you must enable pop-ups in your browser to proceed. The following windows that appear allow you to browse or download per your selected action. Note: filexfer is currently limited to uploading one file at a time.