Bulk data tranfsfer

For data transfers, there are transfer nodes with higher bandwidth and a public IP, so that VPN is not necessary. These nodes make it possible to copy and download large amounts of data to the user space.

We currently have two nodes available for this purpose that provide higher bandwidth between the cluster nodes and the shared storage system. These nodes have the following public IPs:

- 193.146.150.185
- 193.146.150.186

The data transfer through these nodes is only allowed through the use of the secure protocol SFTP (SecureSHell File Transfer Protocol or Secure File Transfer Protocol). SFTP allows you to download and upload files very easily, while providing confidentiality and authentication of the transmitted data, unlike an FTP server where you have no security whatsoever, since the user credentials are sent unencrypted, and all data traffic is also sent unencrypted. For this it is necessary to have a client of this protocol in the local machine, such as **sftp in linux or psftp in windows**.

> **Info**
>
> Only SFTP is allowed on these nodes, not SCP or Rsync. These can only be used on login nodes, but for copying and downloading large data **we strongly recommend** using these nodes due to their higher bandwidth. Also, on login nodes, SFTP is disabled.

SFTP for Linux users

You can open the connection to the server through IP public:

```
sftp myuser@serverIP
```

Most used commands

Once the session is open, the help command will display the list of commands that can be used. The most used ones are described below and they are valid for Linux users such as Windows:

```
sftp> help     -- Show help

sftp> cd  dir   -- change to remote directory .
sftp> lcd dir   -- change local directory.

sftp> pwd      -- show remote directory where you are working.
sftp> lpwd     -- show local directory where you are working.

sftp> put file1.zip ...      -- Upload from local directory to remote.
sftp> get file1.zip ...      -- Download file from remote to local directory

sftp> put -r directory       -- Upload directory from local to remote
sftp> get -r directory       -- Download from remote to local
```

SFTP for Windows users

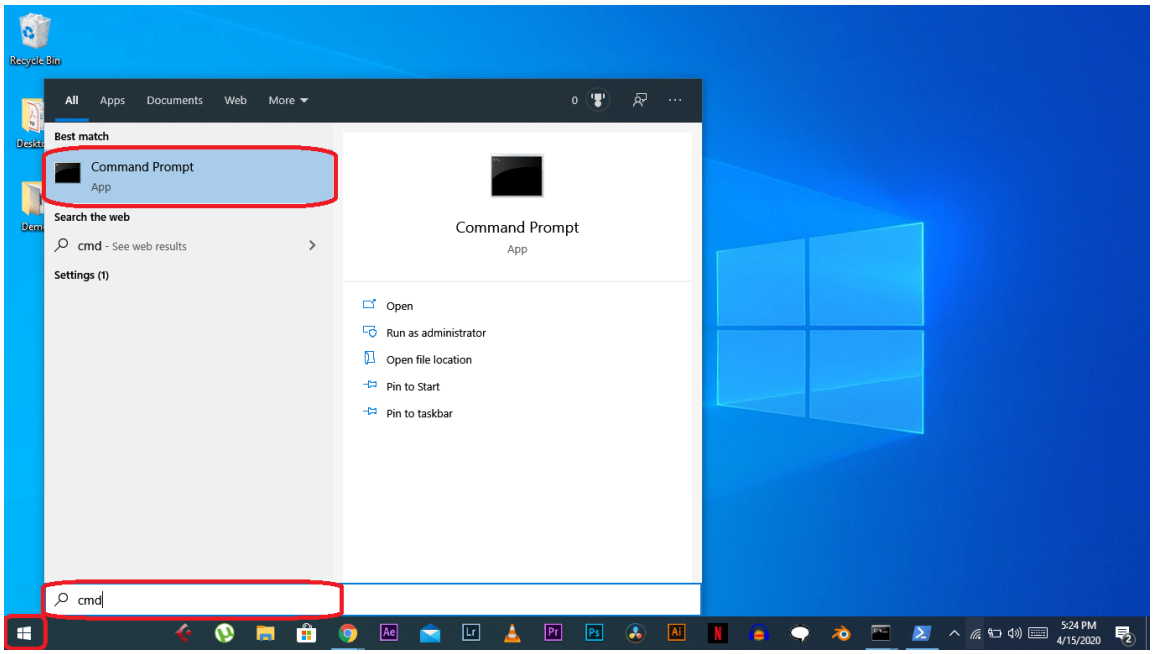
For Windows users there are many applications both with the command line and with a graphical interface. Among them the best known are: **psftp, Filezilla y WinSPC**.

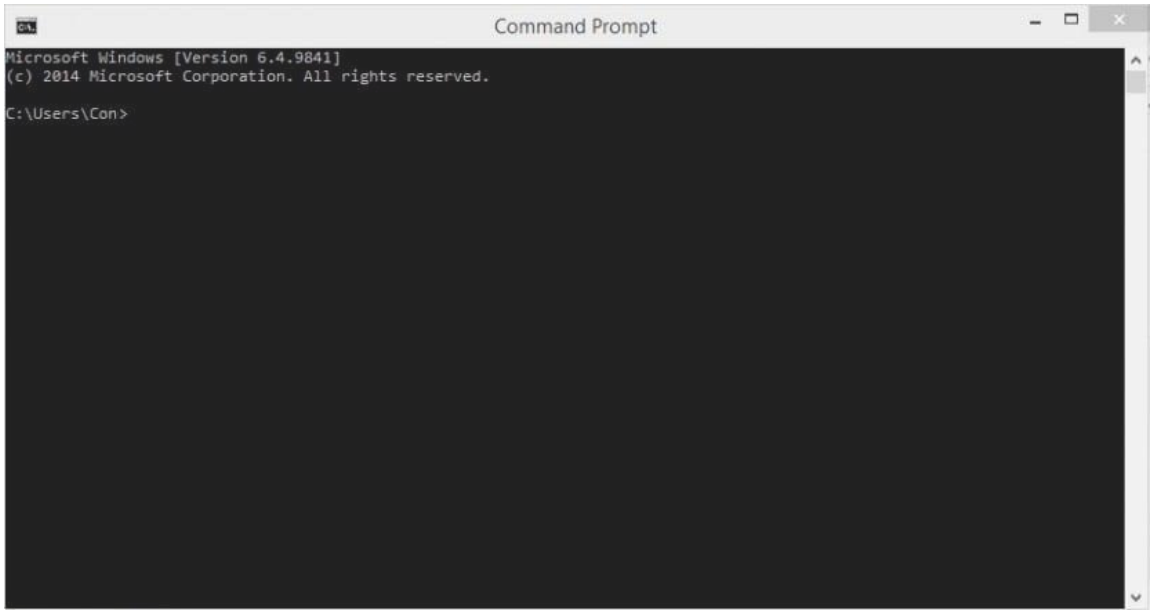
psftp

PSFTP is the SFTP command line client that is installed with the PuTTY (a very popular SSH client for windows).

There are three ways to run PSFTP:

1. Click on the Windows Start button and go to ***All Programs***. From the list of program, Click on ***PuTTY*** and then ***PSFTP***.
2. To enter the following path in the address bar ***C:\Program Files (x86)\PuTTY*** and then double-click on ***psftp.exe***.
3. From Windows command-line interpreter ***Command Prompt*** or ***PowerShell***.





However, to open it from the command prompt, It is recommended to include the directory in which PSFTP has been installed in the user's PATH here

```
set PATH=C:\path\to\putty\directory;%PATH%
```

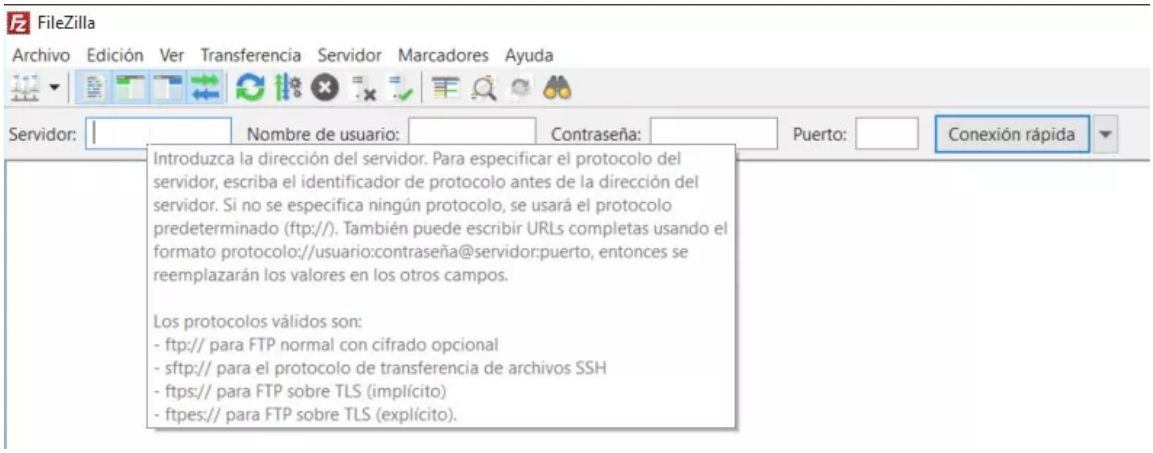
You can open the connection to the server through its public IP.

```
C:\Users\Usuario>psftp myuser@IPserver
```

Filezilla

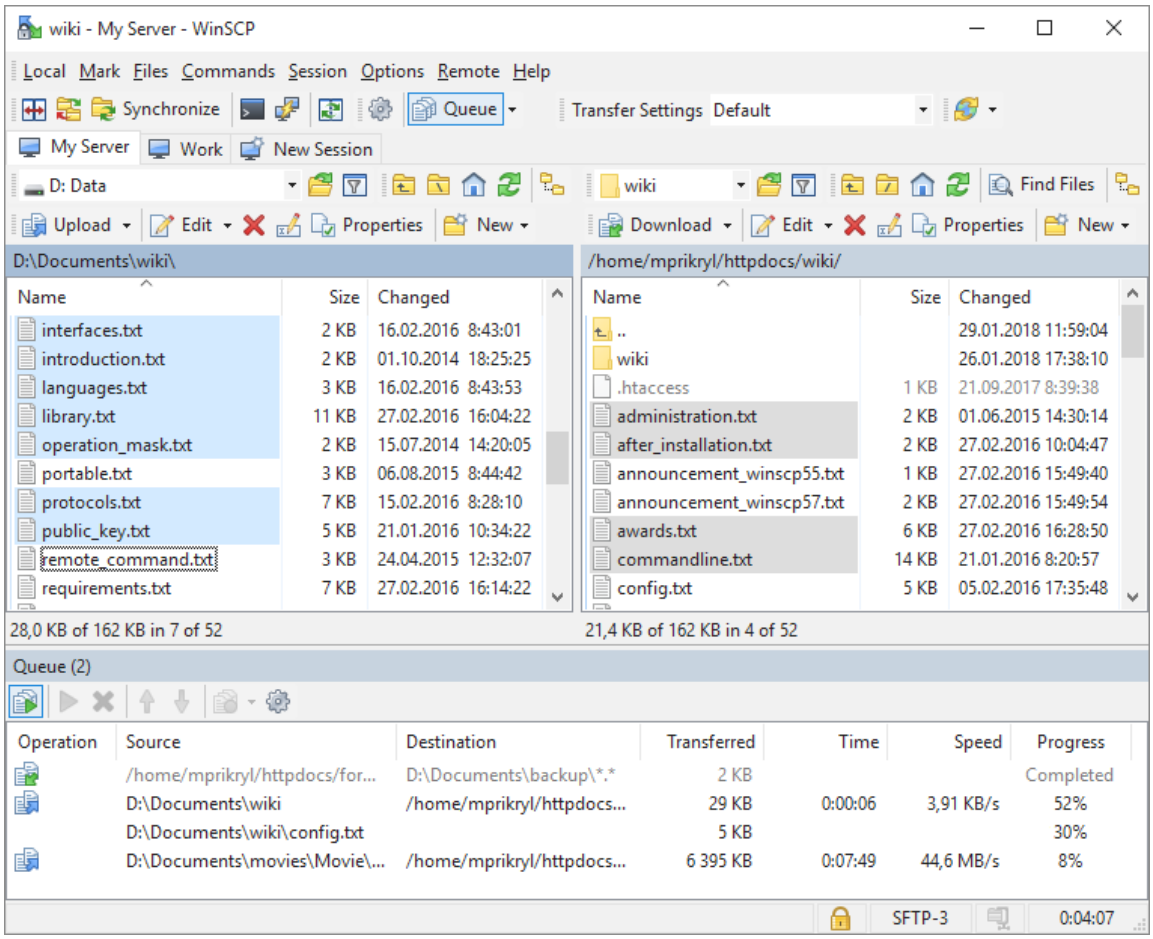
FileZilla is one of the most used programs to be used as an FTP / FTPS and FTPES client, but it also incorporates the possibility of connecting to an SFTP server. You just have to

enter the following syntax ***Server: sftp: // IP*** in the address bar and the ***username*** and ***password*** that have been provied in its corresponding place.



WinSCP

WinSPC is a popular free download client available for Windows. It supports the SFTP, SCP, WebDAV and FTP protocols and is mainly focused on the transfer of files, the use of scripts and basic functionalities of a file manager.



Others

- Core FTP Client
- Cyberduck
- Smart FTP

SFTP for MAC users

The MAC user can use the terminal in the same way as Linux users or install an application with a graphical interface like the following:

- Cyberduck

Links of interest

- sftp -- Linux manual page