

FTP In Linux

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Introduction to FTP

- The File Transfer Protocol (FTP) is used as one of the most common means of copying files between servers over the Internet.
- Regular FTP
 - The VSFTP allows Linux users to copy files to and from their home directories with an FTP client.
- Anonymous FTP
 - Anonymous FTP a username of '**anonymous**' and your email address for the password.
 - Once logged in to a FTP server, you automatically have access to only the default anonymous FTP directory

Start VSFTP

- Use the '**chkconfig**' command to configure VSFTP to start at boot:
 - `chkconfig vsftpd on`
- Use '**service vsftpd**' to start, stop, and restart VSFTP after booting:
 - `service vsftpd start`
 - `service vsftpd stop`
 - `service vsftpd restart`
- Configuration file: `/etc/vsftpd/vsftpd.conf`

Anonymous FTP settings

- Before going to change vsftpd.conf, remember to make a backup:
 - `cp vsftpd.conf vsftpd.conf.bak`
- `anonymous_enable=YES`
 - Allow Anonymous
- `anon_upload_enable=YES`
 - Allow Anonymous upload
- `anon_mkdir_write_enable=YES`
 - Allow Anonymous upload to create directory

Anonymous FTP settings (2)

- `no_anon_password=YES`
 - Do not ask password for anonymous login
- `anon_max_rate=30000`
 - Limit the transfer rate of anonymous, e.g. 30000 = 30k byte per second
- `anon_root=/data/directory`
 - Directory for anonymous is **'/var/ftp'**

Local users' settings

- `local_enable=YES`
 - Allow Linux users to use VSFTPD
- `chroot_list_enable=YES`
 - VSFTPD will use a file to limit some users to change their home directories after login
- `chroot_list_file=/etc/vsftpd/chroot_list`
 - A text file which contain a list of Linux usernames.
 - These users will limit to their home directories

Local users' settings (2)

- `userlist_deny=YES`
 - VSFTPD will use a file to reject some users.
- `userlist_file=/etc/vsftpd/user_list`
 - A text file which contain a list of Linux usernames which DO NOT allow to use VSFTP.
- `local_max_rate=30000`
 - Limit the transfer rate of local user, e.g. 30000 = 30k byte per second

Other Settings

- `max_clients=10`
 - Limiting the maximum number of client connections
- `max_per_ip=1`
 - Limiting the number of connections by same IP address
- `idle_session_timeout=600`
 - Disconnect the idle connection after 600 seconds.
- `xferlog_enable=YES`
 - Record all the file transfer records.
- `xferlog_file=/var/log/vsftpd.log`
 - Filename and directory of log file.

Limit the access on hosts

- FTP server usually can use tcp_wrappers to allow or deny a host's access.
- Add this statement to vsftpd.conf:
 - tcp_wrappers = yes
- Under /etc, create a new file hosts.deny:

```
vsftpd : 192.168.1.0/24 192.168.0.2  
vsftpd : .vtc.edu.hk alan.ict.edu.hk
```
- If you want to allow a specific host, create a hosts.allow with same format.
- Power of hosts.allow > hosts.deny

Connecting To FTP Server

To connect to another computer using FTP at the MS-DOS prompt, command line, or Linux shell type FTP and press enter. Once in FTP> Type:

```
open ftp.example.com
```

When you enter your own login-name and password for the ftp.example.com server, it returns the prompt

```
ftp>
```

Downloading And Uploading A File

To download a file, run the below command once you get the ftp prompt.

```
get myfile.htm
```

To upload a file, run the below command once you get the ftp prompt.

```
send myfile.htm
```

List Current File

Type the ls command at ftp> prompt:

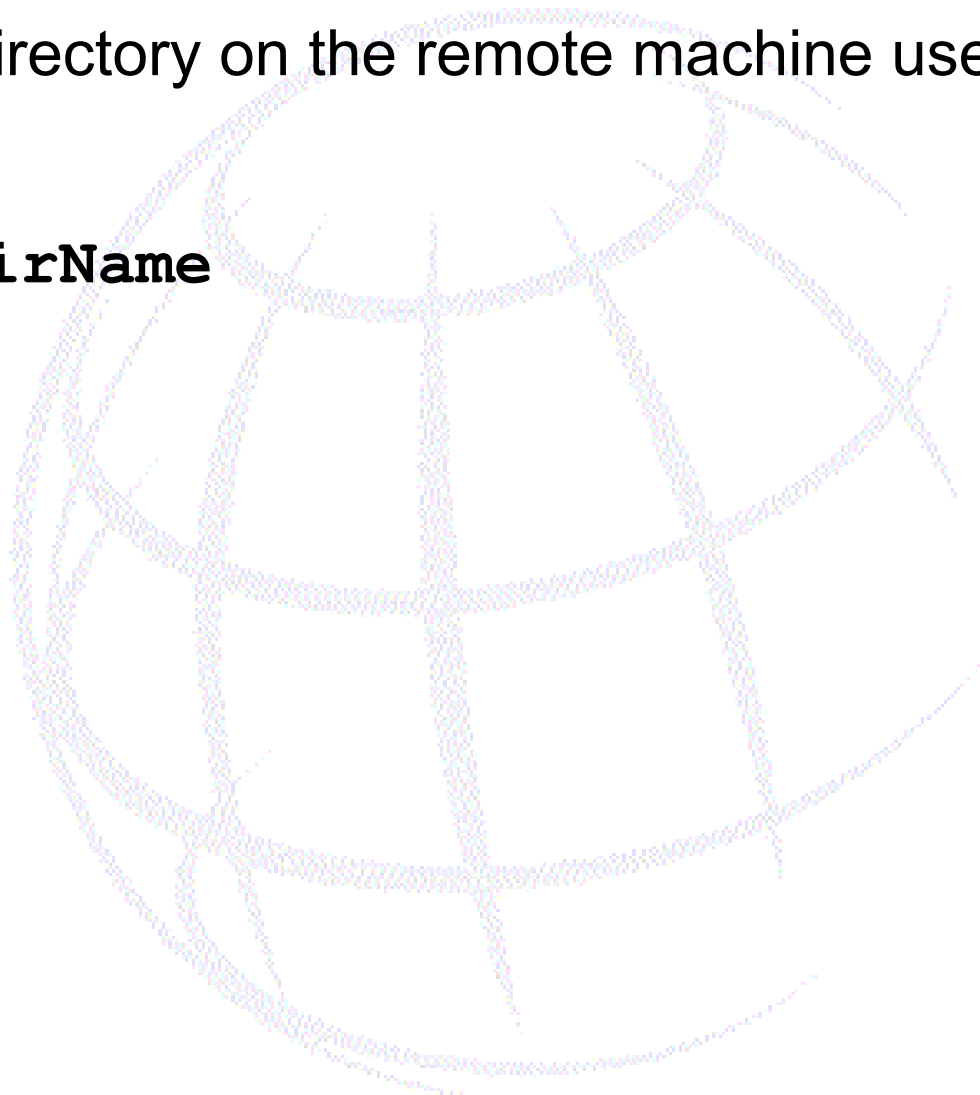
```
ftp> ls
```



Change Directory

To change directory on the remote machine use cd command:

```
ftp> cd dirName
```





THANK YOU