

Assignments:08

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Configure FTP server and upload a file(file name:-client_yourname in FTP server and download(file name:-server_yourname) form the ftp server

FTP(File Transfer Protocol):- It is a standard network protocol used for the transfer the files between client and server on a computer .FTP is built on a client – server model architecture using separate control and data connections between client and the server.

I need two machines to give the demo:

FTP server --- > IP 10.182.3.230

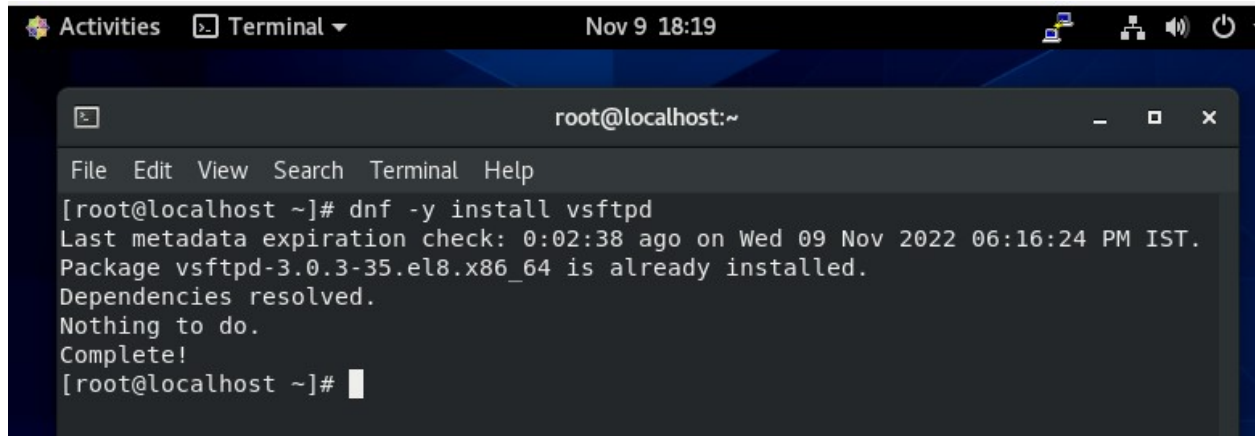
FTP Client --- >

Install and configure VSFTP

VSFTP is tool or program which known as Very Secure FTP :

Step-1:-Step 1:- Install vsftp

sudo dnf -y install vsftpd

A screenshot of a Linux terminal window. The window title is "root@localhost:~". The terminal shows the command `dnf -y install vsftpd` being executed. The output indicates that the package `vsftpd-3.0.3-35.el8.x86_64` is already installed, dependencies are resolved, and nothing needs to be done. The prompt returns to `[root@localhost ~]#`.

```
root@localhost:~  
File Edit View Search Terminal Help  
[root@localhost ~]# dnf -y install vsftpd  
Last metadata expiration check: 0:02:38 ago on Wed 09 Nov 2022 06:16:24 PM IST.  
Package vsftpd-3.0.3-35.el8.x86_64 is already installed.  
Dependencies resolved.  
Nothing to do.  
Complete!  
[root@localhost ~]#
```

Step 2 : Configure the file “vsftpd.conf”

#sudo vi /etc/vsftpd/vsftpd.conf

Set the line number in vi editor

:set number

Line 12

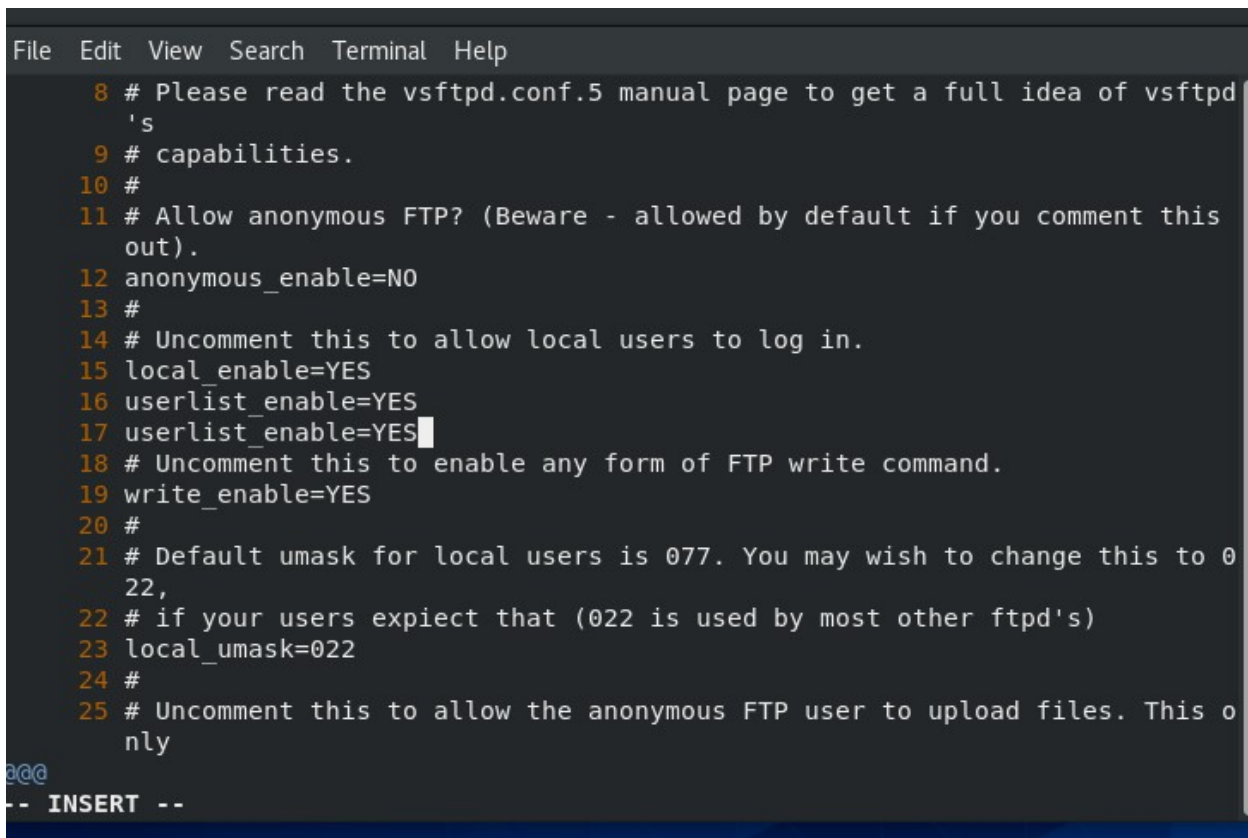
anonymous_enable=NO

In Line 14 -17 Add below statement

local_enable=YES

userlist_enable=YES

userlist_deny=NO



```
File Edit View Search Terminal Help
 8 # Please read the vsftpd.conf.5 manual page to get a full idea of vsftpd
's
 9 # capabilities.
10 #
11 # Allow anonymous FTP? (Beware - allowed by default if you comment this
out).
12 anonymous_enable=NO
13 #
14 # Uncomment this to allow local users to log in.
15 local_enable=YES
16 userlist_enable=YES
17 userlist_enable=YES
18 # Uncomment this to enable any form of FTP write command.
19 write_enable=YES
20 #
21 # Default umask for local users is 077. You may wish to change this to 0
22,
22 # if your users expect that (022 is used by most other ftpd's)
23 local_umask=022
24 #
25 # Uncomment this to allow the anonymous FTP user to upload files. This o
nly
@@@
-- INSERT --
```

Line no. 82, 83 (if you are and above statement)

Uncomment

ascii_upload_enable=YES

ascii_download_enable=YES

```
82 # ASCII mangling is a horrible feature of the protocol.
83 ascii_upload_enable=YES
84 ascii_download_enable=YES
85 #
```

If you want add some login banner

ftpd_banner=Welcome to CDAC FTP server

```
86 # You may fully customise the login banner string:
87 ftpd_banner=Welcome to CDAC FTP server
88 # You may specify a file of disallowed anonymous e-mail addresses. Appar
  ently
89 # useful for combatting certain DoS attacks
```

Uncomment the line 100, 101

chroot_local_user=YES

chroot_local_enable=YES

```
100 chroot_local_user=YES
101 chroot_list_enable=YES
102 # (default follows)
```

Uncomment the line 103

chroot_list_file=/etc/vsftpd/chroot_list

```
103 chroot_list_file=/etc/vsftpd/chroot_list
104 #
```

Uncomment line 109 (by default)

ls_recurse_enable=YES

```
g it.
109 ls_recurse_enable=YES
110 #
```

If you change in the line no 114 NO to YES it means this server listen only on IPv4.

Listen both IPv4 and IPv6 , set NO

listen=NO

```
111 # When 'listen' directive is enabled, vsftpd runs in standalone mode and
112 # listens on IPv4 sockets. This directive cannot be used in conjunction
113 # with the listen_ipv6 directive.
114 listen=NO
```

**Line 123: If you set NO it means your server is not able to listen on IPv6
For both set it YES
listen_ipv6=YES**

```
121 # FILES.
122 # Make sure, that one of the listen options is commented !!
123 listen_ipv6=YES
124
```

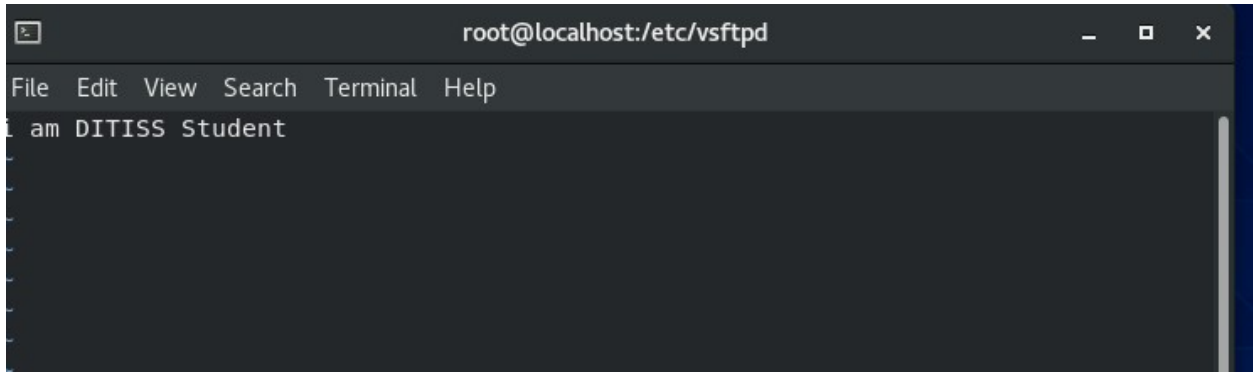
**Add some few new lines in the end
to specify root directory , if not specify, user's home directory become FTP
home directory
local_root=public_html**

**# For use the local time
use_localtime=YES**

```
125 pam_service_name=vsftpd
126 userlist_enable=YES
127 local_root=public_html
128 use_localtime=YES
-- INSERT --
```

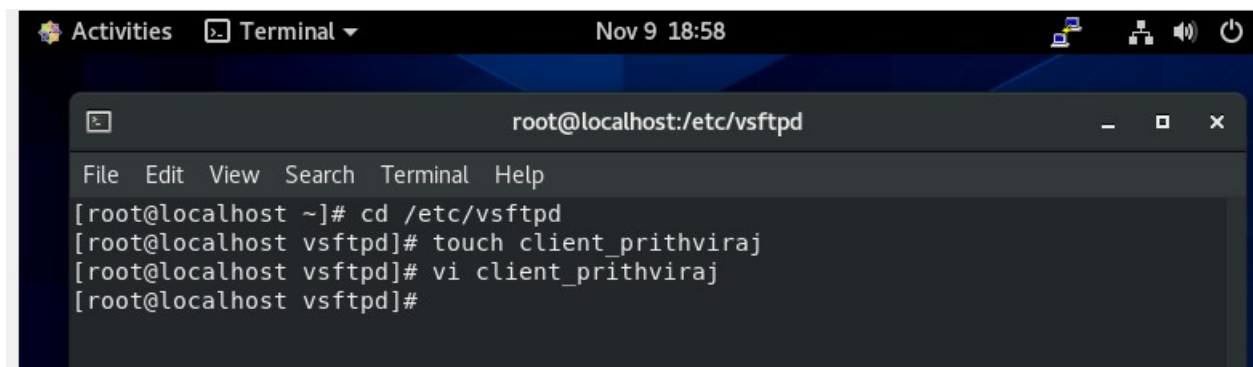
**Step 3:- Create /etc/vsftpd/chroot_list file for you ftp server which contain
your user**

**sudo vi chroot_list
Cdac**

A terminal window titled 'root@localhost:/etc/vsftpd' with a menu bar (File, Edit, View, Search, Terminal, Help). The prompt is 'root@localhost:~#' and the user has entered 'am DITIIS Student'.

Step 4: After the configuration of “vsftpd.conf” you must restart the vsftpd services

sudo systemctl restart vsftpd

A terminal window titled 'root@localhost:/etc/vsftpd' with a menu bar (File, Edit, View, Search, Terminal, Help). The prompt is 'root@localhost:~#'. The user enters 'cd /etc/vsftpd', then 'touch client_prithviraj', then 'vi client_prithviraj', and finally 'exit'.

Step 5:- To check the status is it active or not

sudo systemctl status vsftpd

```

[root@localhost vsftpd]# systemctl restart vsftpd
[root@localhost vsftpd]# systemctl status vsftpd
● vsftpd.service - Vsftpd ftp daemon
   Loaded: loaded (/usr/lib/systemd/system/vsftpd.service; disabled; vendor pre>
   Active: active (running) since Wed 2022-11-09 18:59:04 IST; 11s ago
   Process: 4440 ExecStart=/usr/sbin/vsftpd /etc/vsftpd/vsftpd.conf (code=exited>
  Main PID: 4441 (vsftpd)
     Tasks: 1 (limit: 12262)
    Memory: 768.0K
    CGroup: /system.slice/vsftpd.service
            └─4441 /usr/sbin/vsftpd /etc/vsftpd/vsftpd.conf

Nov 09 18:59:04 localhost.localdomain systemd[1]: Starting Vsftpd ftp daemon...
Nov 09 18:59:04 localhost.localdomain systemd[1]: Started Vsftpd ftp daemon.
lines 1-12/12 (END)

```

Allow FTP service ports in firewall if it is running

\$ sudo firewall-cmd --add-service=ftp-permanent

In my case firewall service is in inactive or dead mode

\$ sudo systemctl stop firewalld

\$ sudo systemctl disable firewalld

\$ sudo iptables -F

```

[root@localhost vsftpd]# systemctl start firewalld
[root@localhost vsftpd]# iptables -F
[root@localhost vsftpd]# firewall-cmd --add-service=ftp --permanent
success
[root@localhost vsftpd]# █

```

Client :-

Step-1:-

Install lftp service in the client part

sudo yum -y install lftp

To connect the FTP server from the client

lftp -u cdac 192.168.3.147

```
root@localhost:~
File Edit View Search Terminal Help
[root@localhost ~]# dnf install vsftpd
Last metadata expiration check: 7:56:59 ago on Wed 09 Nov 2022 12:51:49 AM EST.
Dependencies resolved.
=====
Package           Architecture      Version           Repository        Size
=====
Installing:
vsftpd            x86_64            3.0.3-35.el8     appstream         181 k
=====
Transaction Summary
=====
Install 1 Package

Total download size: 181 k
Installed size: 347 k
Is this ok [y/N]: y
Downloading Packages:
vsftpd-3.0.3-35.el8.x86_64.rpm           30 kB/s | 181 kB    00:06
-----
Total                                   15 kB/s | 181 kB    00:12
Running transaction check
Transaction check succeeded.
Running transaction test
```