vsftpd server

- vsftpd (Very Secure FTP Daemon) is an FTP server for Unix-like systems, known for its security, performance, and stability.
- It is designed to be secure by default, minimizing the risk of vulnerabilities.
- vsftpd is widely used in environments requiring reliable and secure file transfer services.

FTP

- FTP (File Transfer Protocol) is a standard network protocol used for transferring files between a client and server on a computer network.
- It operates on a client-server model, using separate control and data connections between the client and the server.
- FTP can be used to upload and download files, manage directories, and execute basic file commands on a remote server.

Configuration file: /etc/vsftpd/vsftpd.conf
Configuration file:/etc/vsftpd/ftpusers
Configuration file:/etc/vsftpd/user_list
Port no httpd :21
Service :vsftpd

Step1:Install the package

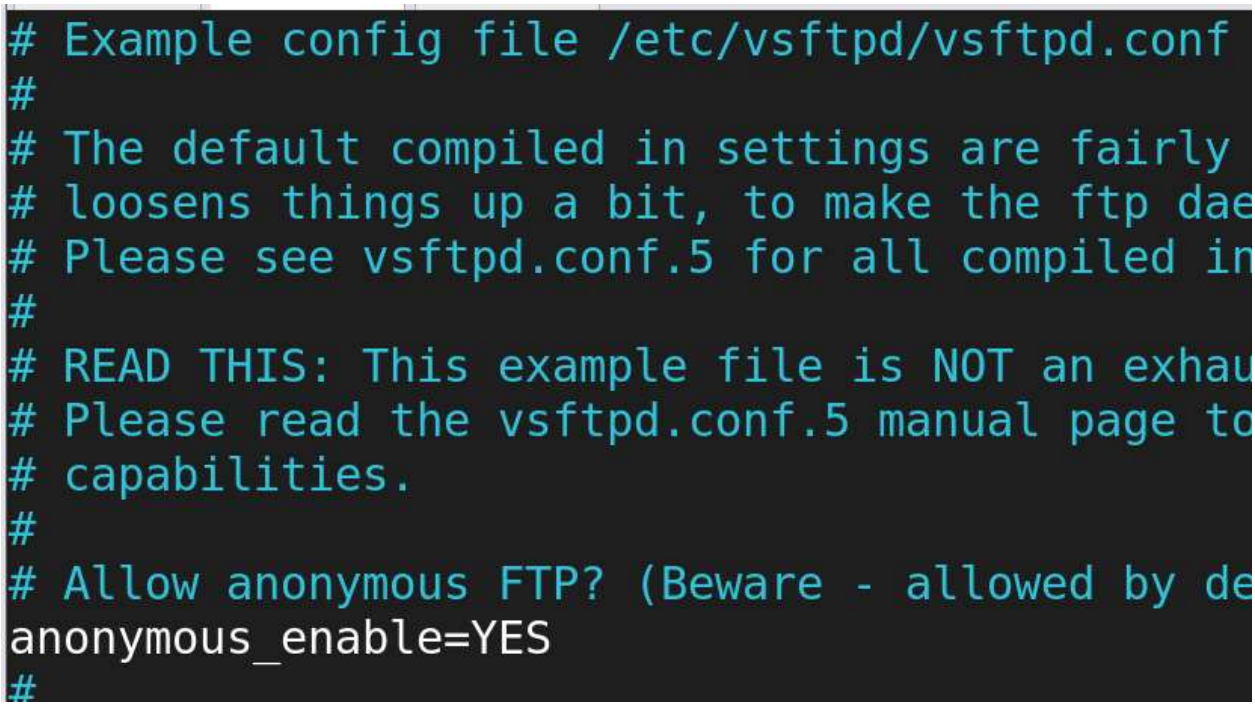
yum install vsftpd

```
[root@server ~]# yum install vsftpd
Last metadata expiration check: 1:57:53 ago on Thu 18 Jul 2024 09:10:23 AM IST.
Dependencies resolved.
================================================================================
 Package         Architecture    Version               Repository                Size
================================================================================
Installing:
 vsftpd          x86_64          3.0.3-49.el9          Localrepo_AppStream       169 k

Transaction Summary
================================================================================
Install  1 Package
```

Step2:To check the configuration and verify it

 # vi /etc/vsftpd/vsftpd.conf



Step3:To check status and start,enable and to running status checking

 # systemctl status vsftpd.service

```
[root@server ~]# systemctl status vsftpd.service
○ vsftpd.service - Vsftpd ftp daemon
     Loaded: loaded (/usr/lib/systemd/system/vsftpd.service; disabled; vendor preset: disa>
     Active: inactive (dead)
```

 # systemctl start vsftpd.service

 # systemctl enable vsftpd.service

```
[root@server ~]# systemctl enable vsftpd.service
Created symlink /etc/systemd/system/multi-user.target.wants/vsftpd.service → /usr/lib/syste
md/system/vsftpd.service.
```

 # systemctl status vsftpd.service

```
● vsftpd.service - Vsftpd ftp daemon
     Loaded: loaded (/usr/lib/systemd/system/vsftpd.service; enabled; vendor preset: disab>
     Active: active (running) since Thu 2024-07-18 11:11:53 IST; 16s ago
   Main PID: 3401 (vsftpd)
      Tasks: 1 (limit: 10764)
     Memory: 708.0K
        CPU: 13ms
     CGroup: /system.slice/vsftpd.service
             └─3401 /usr/sbin/vsftpd /etc/vsftpd/vsftpd.conf

Jul 18 11:11:53 server.gowthaman.com systemd[1]: Starting Vsftpd ftp daemon...
Jul 18 11:11:53 server.gowthaman.com systemd[1]: Started Vsftpd ftp daemon.
```

Again to verify the firewalld.

 # systemctl stop firewalld.service
 # systemctl disable firewalld.service

```
[root@server ~]# systemctl disable firewalld.service
Removed /etc/systemd/system/multi-user.target.wants/firewalld.service.
Removed /etc/systemd/system/dbus-org.fedoraproject.FirewallD1.service.
```

 # setenforce 0

```
[root@server ~]# setenforce 0
setenforce: SELinux is disabled
```

Step4:change the directory and full permission to pub directory

 # cd /var/ftp/
 # chmod 777 pub

```
[root@server ~]# cd /var/ftp/
[root@server ftp]# ls
gowtham  pub
[root@server ftp]# chmod 777 pub
[root@server ftp]# ls -l
total 0
drwxr-xr-x. 4 root root 37 Jul 16 11:01 gowtham
drwxrwxrwx  2 root root  6 Nov 16  2021 pub
```

Client side

Step1:check the ftp ip to enter

 # ftp 192.168.48.128

```
[root@client ~]# ftp 192.168.48.128
Connected to 192.168.48.128 (192.168.48.128).
220 (vsFTPd 3.0.3)
Name (192.168.48.128:root): anonymous
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls
227 Entering Passive Mode (192,168,48,128,69,43).
150 Here comes the directory listing.
drwxr-xr-x    4 0        0              37 Jul 16 05:31 gowtham
drwxrwxrwx    2 0        0               6 Nov 16  2021 pub
226 Directory send OK.
```

Step2:client side create the directory and uploaded to files

ftp> mput file45

```
[root@client ~]# touch file45
[root@client ~]# ftp 192.168.48.128
Connected to 192.168.48.128 (192.168.48.128).
220 (vsFTPd 3.0.3)
Name (192.168.48.128:root): anonymous
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> cd pub
250 Directory successfully changed.
ftp> !ls
anaconda-ks.cfg  Desktop  Documents  Downloads  file45  Music  Pictures  Public  Templates  Videos  wel.txt
ftp> mput file45
mput file45? y
227 Entering Passive Mode (192,168,48,128,158,129).
150 Ok to send data.
226 Transfer complete.
ftp> bye
```

Step3:check and change the directory and again change the pub directory and list it

Server side

Cd /var/ftp
Cd pub
ls

```
[root@server pub]# ls -l
total 4
-rw------- 1 ftp  ftp  0 Jul 18 12:05 file45
```

[root@server pub]# touch file565

```
ftp> ls
227 Entering Passive Mode (192,168,48,128,25,198).
150 Here comes the directory listing.
-rw-------    1 14       50              0 Jul 18 06:35 file45
-rw-r--r--    1 0        0               0 Jul 18 10:41 file565
-rw-r--r--    1 0        0               6 Jul 18 06:20 wel.txt
226 Directory send OK.
```

Step4:Download the file status

```
ftp> get file565
local: file565 remote: file565
227 Entering Passive Mode (192,168,48,128,83,144).
150 Opening BINARY mode data connection for file565 (0 bytes).
226 Transfer complete.
```

Configuration file:/etc/vsftpd/ftpusers

Serverside:

Step1:To enter the configuration and to add the username only other users to logined but this configuration users not allowed to login

vi /etc/vsftpd/ftpusers

```
# Users that are not allowed to login via ftp
```

 # systemctl restart vsftpd.service

Client side

Step2:The Result login failed

```
[root@client ~]# ftp 192.168.48.128
Connected to 192.168.48.128 (192.168.48.128).
220 (vsFTPd 3.0.3)
Name (192.168.48.128:root): ak
331 Please specify the password.
Password:
530 Login incorrect.
Login failed.
```

Configuration file:/etc/vsftpd/user_list

Step1:server side check the configuration and userlist_deny=No and userlist_deny=YES but the reason is another users will be login.

```
# vsftpd userlist
# If userlist_deny=NO, only allow users in this file
# If userlist_deny=YES, (default), never allow users in this file, and
# do not even prompt for a password.
# Note that the default vsftpd pam config also checks /etc/vsftpd/ftpusers
# for users that are denied.
root
```

Step2:Client side will checking login status

```
[root@client ~]# ftp 192.168.48.128
Connected to 192.168.48.128 (192.168.48.128).
220 (vsFTPd 3.0.3)
Name (192.168.48.128:root): root
530 Permission denied.
Login failed.
```

Step3:client side will check it and another user to be login

```
[root@client ~]# ftp 192.168.48.128
Connected to 192.168.48.128 (192.168.48.128).
220 (vsFTPd 3.0.3)
Name (192.168.48.128:root): vijay
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
```