FTP (File Transefer protocol)

File Transfer Protocol FTP

- ✓ The File Transfer Protocol (FTP) is one of the oldest and most commonly used protocols found on the Internet today. Its purpose is to reliably transfer files between computer hosts on a network without requiring the user to log directly in to the remote host or to have knowledge of how to use the remote system. It allows users to access files on remote systems using a standard set of simple commands.
- ✓ FTP uses a client-server architecture to transfer files using the TCP network protocol. Because FTP is a rather old protocol, it uses unencrypted user name and password authentication.

VSFTPD Server

- ✓ The Very Secure FTP Daemon (vsftpd) is designed from the ground up to be fast, stable, and, most importantly, secure. vsftpd is the only stand-alone FTP server distributed with Red Hat Enterprise Linux, due to its ability to handle large numbers of connections efficiently and securely.
- ✓ Vsftpd connect port is 21 tcp
- ✓ Vsftpd data transfer port is 20 tcp

ftp server is manally used for file transfer over the network
ftp server basically support is every oprating system with lan and wan envirment
it's basically allow two types of opration first one is downloding and second downloading
port = 21 (control connection)
20 (data connection)

1. get opration

types of users in ftp

1. **anontmos user or ftp**
2. **ftp account user's**

 # ftp://172.25.0.11
user: anoymos or ftp
password: redhat

Features:

1. **It is very secure and fast**
2. **Bandwidth throttling**
3. **IPv6 ready**

4. Encryption support through SSL integration
5. Virtual IP configurations
6. Virtual users
7. Per-user configuration
8. Per-source-IP configuration and limits

service profile

package = vsftpd
daemon = vsftpd
port no = 20 (data cannection)
21 (control connection)
file = /etc/vsftpd/vsftpd.conf
/etc/vsftpd/ftpusers
/etc/vsftpd/user-list
documentroot = anonymos user = /var/ftp
ftp account = /home/sachin
log = /var/log/ftplog

client side tools

1 = ftp
2 = lftp
3 = sftp
4 = wget
5 = wput
6 = firefox
7 = filezila

server side

```
# ifconfig
# yum install vsftpd* -y
# systemctl start vsftpd
# systemctl enable vsftpd
# filewall-cmd --permanent --add-service=ftp
# filewall-cmd --reload
# netstat -tunlp | grep 21
# grep ftp /etc/passwd
# useradd sachin
# passwd sachin
# grep sachin /etc/passwd
# cd /var/ftp
# ls
# mkdir download
# ls
# cd pub
```

```
# touch abc
# ls
# cd ..
# cd download
# touch a{1..5}
# ls
# cd
# getenforce
# getsebool -a | grep ftp
# setsebool -p ftp_home_dir=1
# getsebool -a | grep ftp
# systemctl restart vsftpd
```

Client Machine

how to download ftp server file only client machine

```
# yum install ftp -y
# ftp 172.25.0.11
:anonymous
press blank enter
ftp> pwd
ftp> ls
ftp> cd download
ftp> ls
ftp> get a1
ftp> mget a1 a2
ftp> prompt
ftp> mget a*
ftp> lcd /tmp
ftp> get a1
ftp> bey
# ls
# ls /tmp
# ftp 172.25.0.11
:sachin
enter the password
ftp>ls
ftp> bey
# touch network
# ftp 172.25.0.11
:sachin
enter the password
ftp> put network
ftp> mkdir raju
ftp> cd raju
ftp> bey
```

 # yum install lftp -y
 # lftp 172.25.0.11
> ls
> cd download
> bye
 # lftp -u sachin 172.25.0.11
password:
>pwd
>ls
>bye

 # wget ftp://172.25.0.11/pub/abc
 # wget ftp://172.25.0.11/download/a1

firefox
ftp://172.25.0.11

ftp://sachin@172.25.0.11

server machine
 # ftp 172.25.0.11

Server Machine

how to allow uploading for anonyoms users

 # vim /etc/vsftpd/vsftpd.conf
 # systemctl restart vsftpd
 # setsebool -P allow-ftpd-anon-write=1
 # getsebool -a | grep ftp
 # ls -ldZ /var/ftp/pub
 # ls -ldZ /var/ftp/download
 # chmod 777 /var/ftp/pub
 # chcon -R -t public_content_rw_t /var/ftp/
 # systemctl restart vsftpd

Client machine
 # touch network
 # ftp 172.25.0.1
:anonymous
:password
ftp> put network

how to allow or deny ftp service for any users

 # vim /etc/vsftpd/ftpusers
#root
alok

:wq!
 # vim /etc/vsftpd/user-list
#root
alok
:wq!
systemctl restart vsftpd

Client Machine

 # ftp: 172.25.0.1
:alok
password:
ftp> bye

 # ftp 172.25.0.1

Server Machine

 # tail -f /var/log/xferlog

how to block ftp service for any ip and network