ដំឡើង និងរៀបចំ FTP Server

(Anonymous share with read permission and Local users share with full permission)

vsftpd stands for Very Secure File Transport Protocol Daemon is a secure, fast FTP server for Unix/Linux systems.

- យើងប្រើប្រាស់វាសម្រាប់ Copy files ដែលស្ថិតនៅចន្លោះ Client និង Server នៅក្នុងបណ្ដាញ(Internet) ដែលរួមបញ្ចូលទាំង Anonymous User និង Local User។

  ប្រភេទនៃ FTP Users មានពីរប្រភេទគឺ

  . Real-Users (Local User)

  . Guest-Users (Anonymous)

- FTP អាស្រ័យលើ Port TCP ដើម្បីដំណើរការ

- FTP Control Channel ដំណើរការ Port TCP 21 For connecting between client and server

- FTP Data Channel ដំណើរការ Port 20 For transfer data

  ➢ របៀបដំឡើង FTP Server for CentOS Stream 9

    Install the FTP Packages

    + នៅក្នុង Virtual Machine in VMware: (Install In server of CentOS 9)

    #dnf update -y: Updates system

    #dnf install -y vsftpd ftp: Install vsftpd

    Verify: #rpm -q vsftpd ftp

➢ របៀប Configure FTP Server for CentOS Stream 9

Anonymous Users (Read Permission and Use Default Dir(/var/ftp/pub/))

Step 1: Edit Configuration file(vsftpd.config)

Vim /etc/vsftpd/vsftpd.conf

\# Enable anonymous access (Read-only)

anonymous_enable=YES

\#add passive mode settings

pasv_enable=YES

pasv_min_port=40000

pasv_max_port=50000

\#Test file to check login access

ftpd_banner=Welcome to FTP service RUPP Assigment team1.

Verify: vsftpd

Check Status, Start and Enable FTP Service(vsftpd)

\#systemctl status vsftpd

\#systemctl start vsftpd

\#systemctl enable vsftpd

```
[root@localhost /]# systemctl status vsftpd
● vsftpd.service - Vsftpd ftp daemon
     Loaded: loaded (/usr/lib/systemd/system/vsftpd.service; enabled; preset: disabled)
     Active: active (running) since Tue 2025-03-11 21:07:33 +07; 1h 5min ago
    Process: 1099 ExecStart=/usr/sbin/vsftpd /etc/vsftpd/vsftpd.conf (code=exited, status=0/SUCCESS)
   Main PID: 1103 (vsftpd)
      Tasks: 1 (limit: 22768)
     Memory: 920.0K
        CPU: 12ms
     CGroup: /system.slice/vsftpd.service
             └─1103 /usr/sbin/vsftpd /etc/vsftpd/vsftpd.conf

Mar 11 21:07:33 localhost.localdomain systemd[1]: Starting Vsftpd ftp daemon...
Mar 11 21:07:33 localhost.localdomain systemd[1]: Started Vsftpd ftp daemon.
[root@localhost /]# systemctl start vsftpd
[root@localhost /]# systemctl enable vsftpd
[root@localhost /]#
```
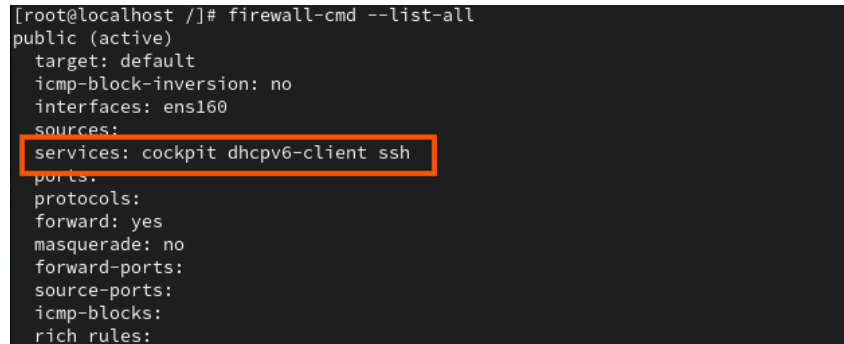
Step 2: Configure Firewall and SELinux

1. Allow FTP server through Firewall

   firewall-cmd --add-service=ftp --permanent

   firewall-cmd --add-port=40000-50000/tcp --permanent

   firewall-cmd –reload

   Verify: firewall-cmd --list-all

   ```
   [root@localhost /]# firewall-cmd --list-all
   public (active)
     target: default
     icmp-block-inversion: no
     interfaces: ens160
     sources:
     services: cockpit dhcpv6-client ssh
     ports:
     protocols:
     forward: yes
     masquerade: no
     forward-ports:
     source-ports:
     icmp-blocks:
     rich rules:
   ```

2. If using SELinux, allow FTP access:

   setsebool -P ftpd_full_access 1

3. Set Up the Anonymous FTP Directory
   Create the FTP root directory for anonymous users:
   mkdir -p /var/ftp/pub

   Set the correct permissions (read-only for anonymous users):
   chmod -R 755 /var/ftp

   chown -R ftp:ftp /var/ftp

   verify access:
   echo "Welcome to the Anonymous FTP Server!" | sudo tee /var/ftp/pub/welcome.txt

4. Testing FTP access from Clients

Local Users (Full Permissions)

Step1 and Step2: like anonymous users

Step 3: Create an FTP User

1. **Create a new local user for FTP**

    useradd -m ftpuser

    passwd ftpuser

2. **Set the correct permissions for the home directory:**

    chown -R ftpuser:ftpuser /home/ftpuser

    chmod -R 755 /home/ftpuser
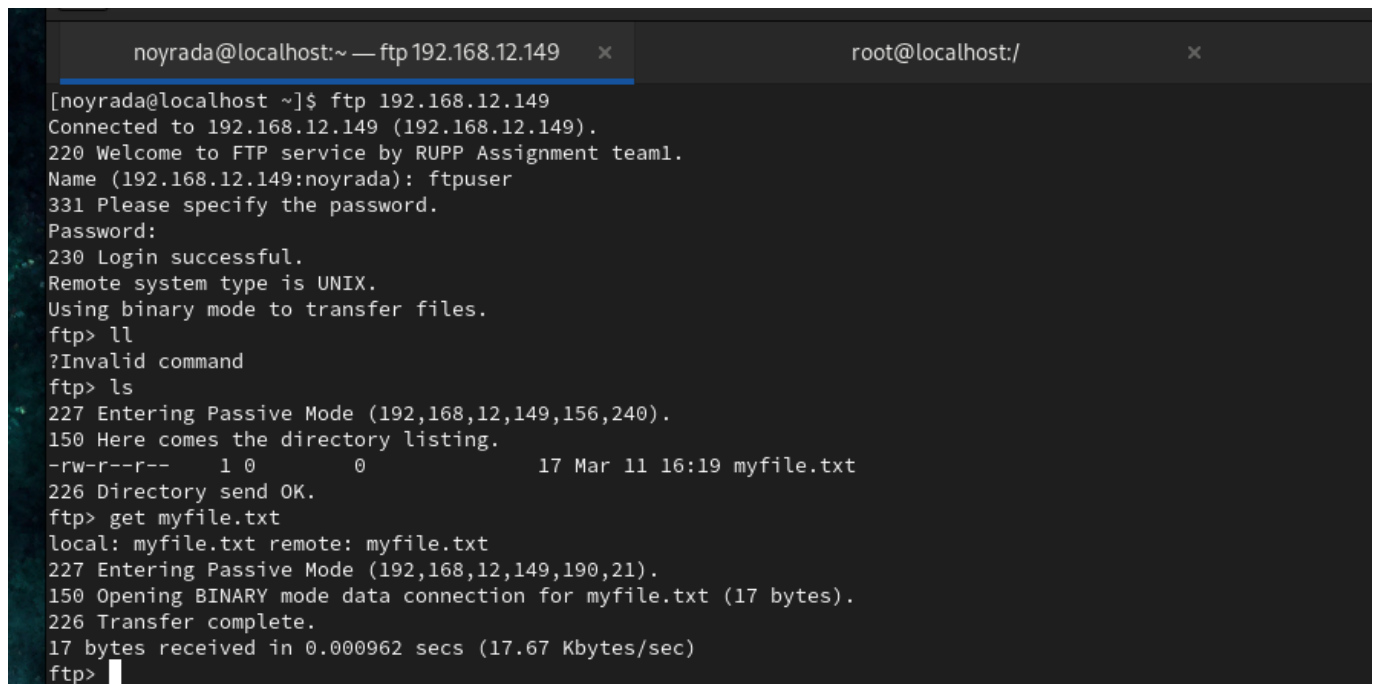
3. Test Local User Access via Command Line:

    ftp ip-address Server

    username: ftpuser

    password:

    -   Try to download:

        get myfile.txt

```
[noyrada@localhost ~]$ ftp 192.168.12.149
Connected to 192.168.12.149 (192.168.12.149).
220 Welcome to FTP service by RUPP Assignment team1.
Name (192.168.12.149:noyrada): ftpuser
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ll
?Invalid command
ftp> ls
227 Entering Passive Mode (192,168,12,149,156,240).
150 Here comes the directory listing.
-rw-r--r--    1 0        0              17 Mar 11 16:19 myfile.txt
226 Directory send OK.
ftp> get myfile.txt
local: myfile.txt remote: myfile.txt
227 Entering Passive Mode (192,168,12,149,190,21).
150 Opening BINARY mode data connection for myfile.txt (17 bytes).
226 Transfer complete.
17 bytes received in 0.000962 secs (17.67 Kbytes/sec)
ftp>
```