**Practical 4: Installation and Configuration of FTP Server (CentOS and Ubuntu).**

**(Ubuntu)**

Step 1: Update System Packages

Start by updating your repositories – enter the following in a terminal window:

**sudo apt-get update**

Step 2:. 1. Create a backup copy of the default configuration file by entering the following:

**sudo cp /etc/vsftpd.conf /etc/vsftpd.conf\_default**

2. Create a new vsftpd configuration file /etc/vsftpd.conf using your preferred text editor:

**$ sudo gedit /etc/vsftpd.conf**

Step 3:. 1. To install vsftpd, enter the command:

**sudo apt install vsftpd**

2. To launch the service and enable it at startup:

**sudo systemctl start vsftpd**

**sudo systemctl enable vsftpd**

Step 4: Create FTP User Create a new FTP user with the following commands:

**sudo useradd –m testuser**

**sudo password testuser**

The system should ask you to create a password for the new testuser account. Create a sample file in the new user’s home account:

**sudo mkdir /home/testuser**

Step 5:. Enter the following commands to open Ports 20 and 21 for FTP traffic:

**sudo ufw allow 20/tcp**

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Step 6: Connect to Ubuntu FTP Server Connect to the FTP server with the following command:

**sudo ftp ubuntu-ftp**

Replace ubuntu-ftp with the name of your system (taken from the command line).

**CentOs**

Step 1: Install FTP Service with VSFTPD 1. Start by updating the package manager

**sudo yum update**

2. Install VSFTPD software with the following command:

**sudo yum install vsftpd**

3. Start the service and set it to launch when the system boots with the following:

**sudo systemctl start vsftpd**

**sudo systemctl enable vsftpd**

4. Next, create a rule for your firewall to allow FTP traffic on Port 21:

**sudo firewall-cmd --zone=public --permanent --add-port=21/tcp**

**sudo firewall-cmd --zone=public --permanent --add-service=ftp**

**sudo firewall-cmd –-reload**

Step 2: Configuring VSFTPD. 1. Before starting, create a copy of the default configuration file:

**sudo cp /etc/vsftpd/vsftpd.conf /etc/vsftpd/vsftpd.conf.default**

2. Next, edit the configuration file with the following command:

**sudo nano /etc/vsftpd/vsftpd.conf**

3. Set your FTP server to disable anonymous users and allow local users. Find the following entries in the configuration file, and edit them to match the following: **anonymous\_enable=NO**

**local\_enable=YES**

Next, allow a logged-in user to upload files to your FTP server. Find the following entry, and edit to match as follows: write\_enable=YES

5. Limit FTP users to their own home directory. This is often called jail or chroot jail. Find and adjust the entry to match the following:

**chroot\_local\_user=YES**

**allow\_writeable\_chroot=YES**

6. The vsftpd utility provides a way to create an approved user list. To manage users this way, find the userlist\_enable entry, then edit the file to look as follows:

**userlist\_enable=YES**

**userlist\_file=/etc/vsftpd/user\_list**

**userlist\_deny=NO**

You can now edit the /etc/vsftpd/user\_list file, and add your list of users. (List one per line.) The userlist\_deny option lets you specify users to be included; setting it to yes would change the list to users that are blocked.

7. Once you’re finished editing the configuration file, save your changes. Restart the vsftpd service to apply changes:

**sudo systemctl restart vsftpd**

Step 3: Create a New FTP User 1. To create a new FTP user enter the following:

**sudo adduser testuser**

**sudo passwd testuser**

2. Add the new user to the userlist:

**echo “testuser” | sudo tee –a /etc/vsftpd/user\_list**

3. Create a directory for the new user, and adjust permissions:

**sudo mkdir –p /home/testuser/ftp/upload**

**sudo chmod 550 /home/testuser/ftp**

**sudo chmod 750 /home/testuser/ftp/upload**

**sudo chown –R testuser: /home/testuser/ftp**

4. Now, you can log in to your FTP server with the user you created:

**ftp 192.168.01**

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Replace this IP address with the one from your system. You can find your IP address in Linux with the ip addr command. The system should prompt you for a username – enter whatever username you created earlier. Type the password, and the system should log you in.