



FTP EN UBUNTU SERVER

SRI



2ºASIR
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IP.

Para cambiar la IP en modo comando haremos:

```
sudo nano /etc/netplan/01-netcfg.yaml
```

```
network:
  ethernets:
    enp0s3:
      dhcp4: no
      addresses:
        - 192.168.2.99/21
      nameservers:
        addresses:
          - 8.8.8.8
          - 8.8.4.4
      routes:
        - to: default
          via: 192.168.1.1
version: 2
```

Para aplicarlo haremos

```
Sudo netplan apply
```

```
ana@ana:~$  
ana@ana:~$ sudo netplan apply
```

*Importante:

hacer sudo apt update y sudo apt upgrade

Instalación.

Haremos la instalación

```
sudo apt install vsftpd
```

```
ana@ana:~$ systemctl status vsftpd.service
● vsftpd.service - vsftpd FTP server
   Loaded: loaded (/usr/lib/systemd/system/vsftpd.service; enabled; preset: enabled)
   Active: active (running) since Tue 2024-11-26 09:19:18 UTC; 1min 57s ago
     Process: 1579 ExecStartPre=/bin/mkdir -p /var/run/vsftpd/empty (code=exited, status=0/SUCCESS)
   Main PID: 1580 (vsftpd)
      Tasks: 1 (limit: 2276)
        Memory: 752.0K (peak: 1.3M)
         CPU: 4ms
        CGroup: /system.slice/vsftpd.service
                  └─1580 /usr/sbin/vsftpd /etc/vsftpd.conf

nov 26 09:19:18 ana systemd[1]: Starting vsftpd.service - vsftpd FTP server...
nov 26 09:19:18 ana systemd[1]: Started vsftpd.service - vsftpd FTP server.
```

Acceder a FTP.

Desde un cliente Linux

conectar desde terminal:

sftp usuario@ip

Conectar al servidor FTP en modo activo:

ftp ip_del_servidor

Conectar al servidor FTP en modo pasivo:

ftp -p ip_del_servidor

El pasivo solicita un puerto dinámico al servidor puede conectarse y el activo proporciona un puerto.

Desde un cliente Windows

Usar un cliente FTP como FileZilla.(también se puede usar en Linux)

Configurar la conexión usando la IP del servidor y el puerto 21 para ambos modos activo y pasivo.

Cambiar configuración :

LISTEN=YES (poner listen_ipv6=NO)

anonymous_enable=YES

local_enable=YES

sudo nano /etc/vsftpd.conf

para la pasiva:

puerto 20095 a 20099

ssl_enable=YES

—> esto hay q escribirlo de 0 debajo de lo de ssl

force_local_logins_ssl=YES → esto hace q SOLO se conecte por sftp (mejor poner no)

allow_anon_ssl=YES

```
allow_anon_ssl=YES  
force_local_data_ssl=NO  
force_local_logins_ssl=NO
```

connect_from_port_20=YES → viene ya en yes

→ añadir al final:

pasv_enable=YES

pasv_min_port=30000 → 50100

pasv_max_port=30059 → 50200

Para el banner:

→ añadir de 0 debajo del dirmessage_enable=YES

ftpd_banner="Hola soy Ana Orozco"

```
anonymous_enable=YES
anon_root=/home/ftp
anon_upload_enable=YES
anon_mkdir_write_enable=YES
anon_world_readable_only=NO
anon_other_write_enable=YES
anon_max_rate=200000
```

upload → pa q suban

mkdir_write_enable → crear directorios

anon_other_write_enable → permisos borrado...

anon_max_rate → el numero debe estar en bytes y es el maximo de baja/subida.

Privilegios y más configuración:

```
ana@ana:/home$ sudo mkdir -p /home/ftp
[sudo] password for ana:
ana@ana:/home$ sudo chmod 777 /home/ftp
ana@ana:/home$ sudo chown root:root /home/ftp
ana@ana:/home$ sudo chmod 555 /home/ftp
ana@ana:/home$ sudo nano /etc/vsftpd.conf
```

- sudo mkdir -p /home/vsftpd
- sudo chmod 555 /home/vsftpd → IMPORTANTE 555 o da fallo
- sudo chown root:root /home/vsftpd
- anon_root=/home/vsftpd
- local_root=/home/vsftpd
- anon_world_readable_only=NO
- anon_mkdir_write_enable=YES
- anon_umask=022
- local_umask=022
- anon_upload_enable=YES

- write_enable=YES
 - chroot_local_user=YES

```
# Allow anonymous FTP? (Disabled by default).  
anonymous_enable=yes  
anon_root=/home/vsftpd  
anon_upload_enable=yes  
anon_mkdir_write_enable=yes  
anon_world_readable_only=no  
anon_other_write_enable=yes  
anon_max_rate=200000  
# Uncomment this to allow local users to log in
```

```
anon_max_rate=200000  
# Uncomment this to allow local users to log in  
local_enable=YES  
local_root=/home/ftp  
#  
# Uncomment this to enable any form of FTP authentication
```

COMANDO COMPROBACIÓN CONFIGURACIÓN: sudo vsftpd -o listen=NO

Para el sftp:

ACTIVIDAD AVANZADA

Crea en el sistema los usuarios dani, pablo y alexis

```
ana@ana:/home$ sudo adduser dani
info: Adding user `dani' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `dani' (1001) ...
info: Adding new user `dani' (1001) with group `dani (1001)' ...
info: Creating home directory `/home/dani' ...
info: Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for dani
Enter the new value, or press ENTER for the default
      Full Name []:
      Room Number []:
      Work Phone []:
      Home Phone []:
      Other []:
Is the information correct? [Y/n] y
info: Adding new user `dani' to supplemental / extra groups `users' ...
info: Adding user `dani' to group `users' ...
```

Crea un grupo que se llame amiguitos en el que solo estén dani y pablo

```
ana@ana:/home$ sudo addgroup amiguitos
info: Selecting GID from range 1000 to 59999 ...
info: Adding group `amiguitos' (GID 1004) ...
ana@ana:/home$ sudo usermod -aG amiguitos dani
ana@ana:/home$ sudo usermod -aG amiguitos pablo
ana@ana:/home$
```

Crea un grupo que se llame todos en el que estén dani, pablo y alexis

```
ana@ana:/home$ sudo addgroup todos
info: Selecting GID from range 1000 to 59999 ...
info: Adding group `todos' (GID 1005) ...
ana@ana:/home$ sudo usermod -aG todos dani
ana@ana:/home$ sudo usermod -aG todos pablo
ana@ana:/home$ sudo usermod -aG todos alexis
```

Configura el servidor ftp para que tanto el usuario anónimo como los usuarios locales tengan como root /home/ftp

```
# Allow anonymous FTP? (Disabled by default).
anonymous_enable=YES
anon_root=/home/ftp
anon_upload_enable=YES
anon_mkdir_write_enable=YES
anon_world_readable_only=NO
anon_max_rate=200000
#
# Uncomment this to allow local users to log in
local_enable=YES
local_root=/home/ftp
#
# Uncomment this to enable any form of FTP write
#local_write_enable=YES
```

*Las conexiones anónimas pueden leer en lectura, escribir en escritura y no pueden entrar en putada

*Los tres usuarios podrán leer de la carpeta lectura y anon

Los tres usuarios podrán escribir en la carpeta escritura y anon

Los tres usuarios podrán leer en la carpeta putada pero únicamente pepe y juan podrán escribir en la misma, anon no puede entrar no ejc 0

Dentro del servidor ftp tiene que haber cuatro carpetas: leer, escribir, e1 y e2

```
ana@ana:/home$ sudo mkdir -p /home/ftp/e1  
ana@ana:/home$ sudo mkdir -p /home/ftp/e2  
ana@ana:/home$ sudo mkdir -p /home/ftp/escribir  
ana@ana:/home$ sudo mkdir -p /home/ftp/leer  
ana@ana:/home$ sudo chmod 555
```

```
usuario@server001:/home/ftp$ ls  
e1 e2 escribir leer  
usuario@server001:/home/ftp$ _
```

En leer puede leer todo el mundo(SOLO LECTURA) → 555

En escribir puede escribir todo el mundo(SOLO ESCRITURA) → 222

En e1 pueden leer los usuarios del sistema y anónimo, pero solo pueden escribir los usuarios del sistema

En e2 solo pueden leer y escribir los amiguitos

*tengo 1 fallo pero lo cambio mas tarde

```
chmod: changing permissions of '/home/ftp/leer': Operation not permitted  
ana@ana:/home$ sudo chmod 555 /home/ftp/leer  
ana@ana:/home$ sudo chmod 222 /home/ftp/escribir  
ana@ana:/home$ sudo chmod 577 /home/ftp/escribir  
ana@ana:/home$ sudo chmod 171 /home/ftp/e2  
ana@ana:/home$ sudo chmod 577 /home/ftp/e1
```

ls -l

(Dar permisos de ejecución, si no no funciona) (Los anónimos loguean con el usuario ftp)

```
ana@ana:/home/ftp$ sudo chown ftp:todos /home/ftp/leer  
ana@ana:/home/ftp$ sudo chown ftp:todos /home/ftp/escribir  
ana@ana:/home/ftp$ sudo chown ftp:todos /home/ftp/e1  
ana@ana:/home/ftp$ sudo chown ftp:amiguitos /home/ftp/e2  
ana@ana:/home/ftp$ ls -l  
total 16  
4 drwxrwxrwx 2 ftp todos 4096 nov 26 10:49 e1  
4 d--xrwx--x 2 ftp amiguitos 4096 nov 26 10:49 e2  
4 drwxrwxrwx 2 ftp todos 4096 nov 26 10:49 escribir  
4 dr-xr-xr-x 2 ftp todos 4096 nov 26 10:50 leer  
ana@ana:/home/ftp$ _
```

*el usuario anonimo es igual q el usuario ftp

*si queremos q el usuario entre en la carpeta debe tener ejecucion

solo ejecucion 111 (todas las demás opciones tienen ejecucion sí o sí)

solo escritura 222

solo lectura 555

lectura y escritura 777

Encapsular a todos en el directorio definido menos al usuario master (añadir primero con useradd master)

*si fuera al revés, osea q ninguno este encapsulado menos pepe, metemos a pepe en la lista y en la configuración chroot_local_user=NO

```
# chroot_list_enable below.
chroot_local_user=YES
#
# You may specify an explicit list of local users to chroot() to their home
# directory. If chroot_local_user is YES, then this list becomes a list of
# users to NOT chroot().
# (Warning! chroot'ing can be very dangerous. If using chroot, make sure that
# the user does not have write access to the top level directory within the
# chroot)
#chroot_local_user=YES
chroot_list_enable=YES
# (default follows)
chroot_list_file=/etc/vsftpd.chroot_list
#
# You may activate the ".R" option to the builtin ls. This is disabled by
```

```
root@server001:/home/ftp# nano /etc/vsftpd.chroot_list _
```

```
GNU nano 7.2
master
```

Configuración completa

```
GNU nano 7.2                                     /etc/vsftpd.conf
# Example config file /etc/vsftpd.conf
#
# The default compiled in settings are fairly paranoid. This sample file
# loosens things up a bit, to make the ftp daemon more usable.
# Please see vsftpd.conf.5 for all compiled in defaults.
#
# READ THIS: This example file is NOT an exhaustive list of vsftpd options.
# Please read the vsftpd.conf.5 manual page to get a full idea of vsftpd's
# capabilities.
#
#
# Run standalone?  vsftpd can run either from an inetd or as a standalone
# daemon started from an initscript.
listen=NO
#
# This directive enables listening on IPv6 sockets. By default, listening
# on the IPv6 "any" address (::) will accept connections from both IPv6
# and IPv4 clients. It is not necessary to listen on *both* IPv4 and IPv6
# sockets. If you want that (perhaps because you want to listen on specific
# addresses) then you must run two copies of vsftpd with two configuration
# files.
listen_ipv6=YES
#
# Allow anonymous FTP? (Disabled by default).
anonymous_enable=YES
anon_root=/home/ftp
anon_upload_enable=YES
anon_mkdir_write_enable=YES
anon_world_readable_only=NO
anon_other_write_enable=YES
anon_max_rate=200000
#
# Uncomment this to allow local users to log in.
local_enable=YES
local_root=/home/ftp
#
# Uncomment this to enable any form of FTP write command.
write_enable=YES
#
# Default umask for local users is 077. You may wish to change this to 022,
# if your users expect that (022 is used by most other ftppd's)
local_umask=022
anon_umask=022
#
# Uncomment this to allow the anonymous FTP user to upload files. This only
# has an effect if the above global write enable is activated. Also, you will
[ Read 175 lines ]
```

```
GNU nano 7.2                                     /etc/vsftpd.conf
# Uncomment this to allow the anonymous FTP user to upload files. This only
# has an effect if the above global write enable is activated. Also, you will
# obviously need to create a directory writable by the FTP user.
anon_upload_enable=YES
#
# Uncomment this if you want the anonymous FTP user to be able to create
# new directories.
anon_mkdir_write_enable=YES
#
# Activate directory messages - messages given to remote users when they
# go into a certain directory.
dirmessage_enable=YES
ftpd_banner="Hola holita vecinito"
#
# If enabled, vsftpd will display directory listings with the time
# in your local time zone. The default is to display GMT. The
# times returned by the MDTM FTP command are also affected by this
# option.
use_localtime=YES
#
# Activate logging of uploads/downloads.
xferlog_enable=YES
#
# Make sure PORT transfer connections originate from port 20 (ftp-data).
connect_from_port_20=YES
#
# If you want, you can arrange for uploaded anonymous files to be owned by
# a different user. Note! Using "root" for uploaded files is not
# recommended!
#chown_uploads=YES
#chown_username=whoever
#
# You may override where the log file goes if you like. The default is shown
# below.
#xferlog_file=/var/log/vsftpd.log
#
# If you want, you can have your log file in standard ftpd xferlog format.
# Note that the default log file location is /var/log/xferlog in this case.
#xferlog_std_format=YES
#
# You may change the default value for timing out an idle session.
#idle_session_timeout=600
#
# You may change the default value for timing out a data connection.
#data_connection_timeout=120
#
[ Read 175 lines ]
^C Help   ^D Write Out  ^M Where To  ^K Cut    ^T Execute  ^G Location
```

*banner cambiado

```
GNU nano 7.2                                     /etc/vsftpd.conf
#data_connection_timeout=120
#
# It is recommended that you define on your system a unique user which the
# ftp server can use as a totally isolated and unprivileged user.
#nopriv_user=ftpsecure
#
# Enable this and the server will recognise asynchronous ABOR requests. Not
# recommended for security (the code is non-trivial). Not enabling it,
# however, may confuse older FTP clients.
#async_abor_enable=YES
#
# By default the server will pretend to allow ASCII mode but in fact ignore
# the request. Turn on the below options to have the server actually do ASCII
# mangling on files when in ASCII mode.
# Beware that on some FTP servers, ASCII support allows a denial of service
# attack (DoS) via the command "SIZE /big/file" in ASCII mode. vsftpd
# predicted this attack and has always been safe, reporting the size of the
# raw file.
# ASCII mangling is a horrible feature of the protocol.
#ascii_upload_enable=YES
#ascii_download_enable=YES
#
# You may fully customise the login banner string:
#ftpd_banner=Welcome to blah FTP service.
#
# You may specify a file of disallowed anonymous e-mail addresses. Apparently
# useful for combatting certain DoS attacks.
#deny_email_enable=YES
# (default follows)
#banned_email_file=/etc/vsftpd.banned_emails
#
# You may restrict local users to their home directories. See the FAQ for
# the possible risks in this before using chroot_local_user or
# chroot_list_enable below.
chroot_local_user=YES
#
# You may specify an explicit list of local users to chroot() to their home
# directory. If chroot_local_user is YES, then this list becomes a list of
# users to NOT chroot().
# (Warning! chroot'ing can be very dangerous. If using chroot, make sure that
# the user does not have write access to the top level directory within the
# chroot)
#chroot_local_user=YES
chroot_list_enable=YES
# (default follows)
chroot_list_file=/etc/vsftpd.chroot_list
```

[1: Read 175 Lines]

```

GNU nano 7.2                                         /etc/vsftpd.conf
# (default follows)
chroot_list_file=/etc/vsftpd.chroot_list
#
# You may activate the "-R" option to the builtin ls. This is disabled by
# default to avoid remote users being able to cause excessive I/O on large
# sites. However, some broken FTP clients such as "ncftp" and "mirror" assume
# the presence of the "-R" option, so there is a strong case for enabling it.
#ls_recurse_enable=YES
#
# Customization
#
# Some of vsftpd's settings don't fit the filesystem layout by
# default.
#
# This option should be the name of a directory which is empty. Also, the
# directory should not be writable by the ftp user. This directory is used
# as a secure chroot() jail at times vsftpd does not require filesystem
# access.
secure_chroot_dir=/var/run/vsftpd/empty
#
# This string is the name of the PAM service vsftpd will use.
pam_service_name=vsftpd
#
# This option specifies the location of the RSA certificate to use for SSL
# encrypted connections.
rsa_cert_file=/etc/ssl/certs/vsftpd.crt
rsa_private_key_file=/etc/ssl/private/vsftpd.key
ssl_enable=YES

allow_anon_ssl=YES
force_local_data_ssl=NO
force_local_logins_ssl=NO

#
# Uncomment this to indicate that vsftpd use a utf8 filesystem.
#utf8_filesystem=YES

pasv_enable=YES
pasv_min_port=50100
pasv_max_port=50200

#implicit_ssl=YES
#listen_port=990

```

/home/ftp – permisos 555

```

anon_root = /home/ftp

local_root = /home/ftp

chroot_local_user = yes

chroot_local_host??

```

chown y creamos un grupo donde están los usuarios y se le dan permisos x70 si no quiero q los demás entren es decir q solo puedan tener permisos los del grupo

usuario minimo tiene q acceder deberá tener xx7 normalmente 777

permisos:

xxx xxx xxx = 777 todos los usuarios, grupos y otros tienen permiso de todo
user group other

x_max_rate= bytes/s

x → anon, local

x_umask → resta esos permisos a los que están puestos

-cambiar permisos fichero:

chmod xxx fichero

chown usuario:grupo fichero → hay q ser

sudo vsftpd -o listen=NO