

Cheat-Sheet: FTP

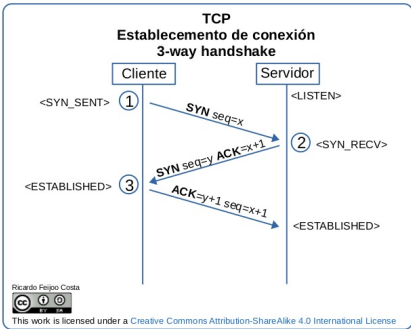
Cientes FTP

GUI → FileZilla Client (Modo Pasivo)

Comandos → ftp

GNU/Linux → ftp (Modo Pasivo)

MS Windows → ftp (Modo Activo)



FTP - Establecimiento de conexión → 21 (Server TCP Port)

No.	Time	Source	Destination	Protocol	Length	Info
5	0.006427614	10.0.2.15	ftp.ujaen.es	TCP	74	39090 → 21 [SYN] Seq=0 Win=65535 Len=0
6	0.038841648	ftp.ujaen.es	10.0.2.15	TCP	60	21 → 39090 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0
7	0.038913556	10.0.2.15	ftp.ujaen.es	TCP	54	39090 → 21 [ACK] Seq=1 Ack=1 Win=65535 Len=0
8	0.083003327	ftp.ujaen.es	10.0.2.15	FTP	106	Response: 220 Servidor FTP anonimo de la Universidad de Jaen
9	0.083108496	10.0.2.15	ftp.ujaen.es	TCP	54	39090 → 21 [ACK] Seq=1 Ack=53 Win=65535 Len=0
14	5.969206024	10.0.2.15	ftp.ujaen.es	FTP	70	Request: USER anonymous
15	5.969965755	ftp.ujaen.es	10.0.2.15	TCP	60	21 → 39090 [ACK] Seq=53 Ack=17 Win=65535 Len=0
16	6.002095887	ftp.ujaen.es	10.0.2.15	FTP	129	Response: 331 Anonymous login ok, send your complete email address as your password

Debian Handbook - FTP

Debian Wiki - FTP

FileZilla

FileZilla Client

FileZilla Server

Kali - ftp

Kali - sftp

Kali - tftp-hpa

Modo Pasivo → Inicio conexión de datos desde o cliente ftp  
→ TCP Port cliente ftp ≥ 1024  
→ TCP Port servidor ftp ≥ 1024

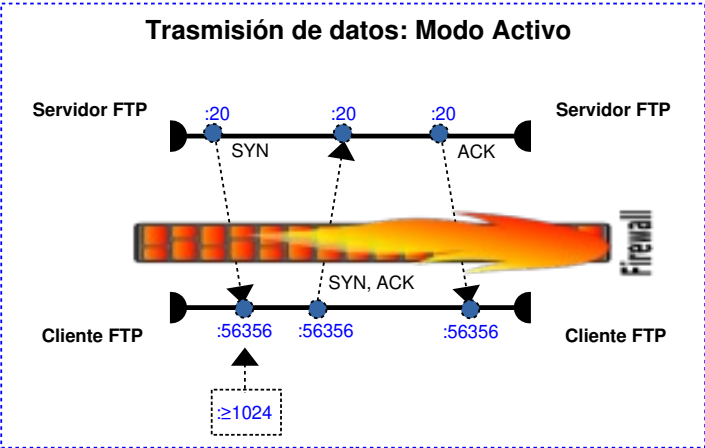
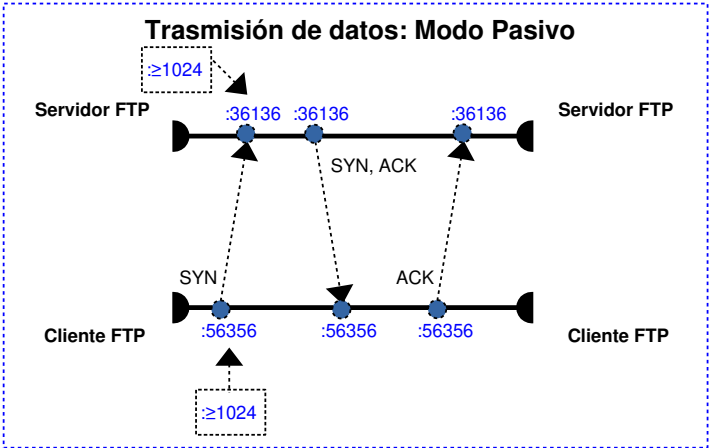
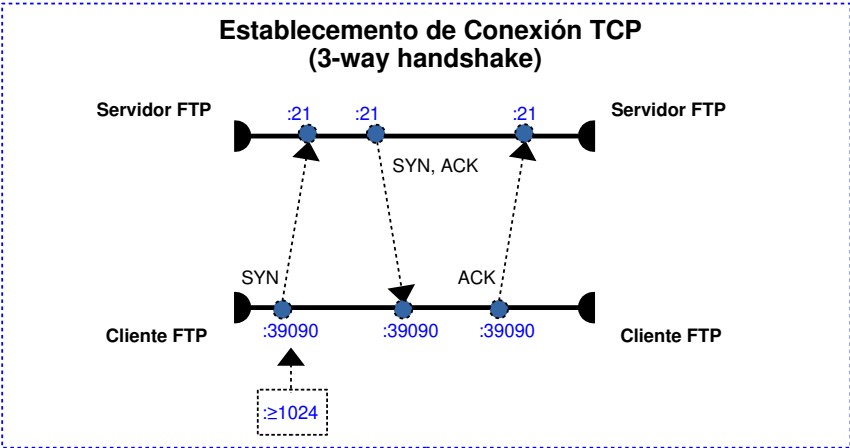
GNU/Linux → command ftp

WireShark

```
(kali@kali)-[~]
$ ftp ftp.ujaen.es
Connected to ftp.ujaen.es.
220 Servidor FTP anonimo de la Universidad de Jaen
Name (ftp.ujaen.es:kali): anonymous
331 Anonymous login ok, send your complete email address as your password
Password:
230 Acceso permitido para anonymous
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls
229 Entering Extended Passive Mode (|||36136|)
150 Opening BINARY mode data connection for file list
drwxr-xr-x  6 ftp      ftp      152 Nov  3  2011 pub
-rw-r--r--  1 ftp      ftp      1877 Apr 26  2007 welcome.msg
226 Transfer complete
ftp> lcd /tmp
Local directory now: /tmp
ftp> get welcome.msg
Local: welcome.msg remote: welcome.msg
229 Entering Extended Passive Mode (|||28263|)
150 Opening BINARY mode data connection for welcome.msg (1877 bytes)
100% |*****| 1877 12.69 MiB/s 00:00 ETA
226 Transfer complete
1877 bytes received in 00:00 (56.88 KiB/s)
ftp> !
(kali@kali)-[/tmp]
$ ls -l welcome.msg
-rw-r--r-- 1 kali kali 1877 Apr 26 2007 welcome.msg
(kali@kali)-[/tmp]
$ exit
ftp> quit
221 Goodbye.
(kali@kali)-[~]
$
```

No.	Time	Source	Destination	Protocol	Length	Info
39	10.631906463	10.0.2.15	ftp.ujaen.es	TCP	74	56356 → 36136 [SYN] Seq=0 Win=65535 Len=0 MSS=1460
40	10.665672297	ftp.ujaen.es	10.0.2.15	TCP	60	36136 → 56356 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0
41	10.665786034	10.0.2.15	ftp.ujaen.es	TCP	54	56356 → 36136 [ACK] Seq=1 Ack=1 Win=65535 Len=0
45	10.701106316	ftp.ujaen.es	10.0.2.15	FTP-DATA	182	FTP Data: 128 bytes (EPASV) (LIST)
46	10.701196871	ftp.ujaen.es	10.0.2.15	TCP	60	36136 → 56356 [FIN, ACK] Seq=129 Ack=1 Win=65535 Len=0
47	10.701282132	10.0.2.15	ftp.ujaen.es	TCP	54	56356 → 36136 [ACK] Seq=1 Ack=129 Win=65535 Len=0
48	10.701745304	10.0.2.15	ftp.ujaen.es	TCP	54	56356 → 36136 [FIN, ACK] Seq=1 Ack=130 Win=65535 Len=0
49	10.702298799	ftp.ujaen.es	10.0.2.15	TCP	60	36136 → 56356 [ACK] Seq=130 Ack=2 Win=65535 Len=0

Frame 45: 182 bytes on wire (1456 bits), 182 bytes captured (1456 bits) on interface eth0, id 0  
Ethernet II, Src: 10.0.2.2 (52:54:00:12:35:02), Dst: 10.0.2.15 (08:00:27:e7:3b:62)  
Internet Protocol Version 4, Src: ftp.ujaen.es (150.214.170.29), Dst: 10.0.2.15 (10.0.2.15)  
Transmission Control Protocol, Src Port: 36136, Dst Port: 56356, Seq: 1, Ack: 1, Len: 128  
FTP Data (128 bytes data)  
[Setup frame: 38]  
[Setup method: EPASV]  
[Command: LIST]  
Command frame: 42  
[Current working directory: ]  
Line-based text data (2 lines)  
drwxr-xr-x 6 ftp ftp 152 Nov 3 2011 pub\r\n  
-rw-r--r-- 1 ftp ftp 1877 Apr 26 2007 welcome.msg\r\n



Problema  
Atravesar o firewall,  
router, etc do cliente.  
Débense permitir  
conexións entrantes  
hacia o cliente cando o  
cliente non é o host que  
solicitou a conexión.



**Servidor FTP(filezilla-server)**  
**eth0:**  
IP estática: 10.10.10.10/8  
Gateway: 10.10.10.1  
DNS: 1.1.1.1, 8.8.8.8  
**Paquete servidor FTP:**  
FileZilla\_Server\*.deb  
**Instalación:**  
# dpkg -i FileZilla\_Server\*.deb  
**Portos TCP:**  
21 → Establecimiento conexión  
14148 → GUI Administración  
**Ficheiros de configuración:**  
/opt/filezilla-server/etc  
Por defecto ningún usuario ten acceso ao servidor. Tampouco o usuario **anonymous**  
**Binarios:**  
/opt/filezilla-server/bin  
filezilla-server-gui & → Panel administración  
**Ficheiros logs:**  
Panel administración  
**Panel de administración:**  
Users: sistema (posúen perfil de usuario)  
Users: virtuais (non posúen conta no sistema, pero poden enlazarse a un perfil de usuario)

**Configuración de rede en tempo real:**  
# pkill NetworkManager \  
&& ip addr add 10.10.10.10 dev eth0 \  
&& ip route add default via 10.10.10.1 dev eth0 \  
&& echo -e 'nameserver 1.1.1.1\nnameserver 8.8.8.8' > /etc/resolv.conf

**Comprobar a configuración de rede:**  
# ip addr show eth0 \  
&& ip route \  
&& cat /etc/resolv.conf

**Paquete debian: FileZilla\_Server\*.deb - Instalación**  
# dpkg -i FileZilla\_Server\*.deb

**Ver accións posibles do servidor filezilla-server:**  
# systemctl show filezilla-server | grep -i can #Premer Enter  
CanStart=yes → Pódese utilizar a acción 'systemctl start' para iniciar o servizo.  
CanStop=yes → Pódese utilizar a acción 'systemctl stop' para deter o servizo.  
CanReload=yes → Pódese utilizar a acción 'systemctl reload' para recargar o servizo.  
CanIsolate=no → Non se pode utilizar a acción 'systemctl isolate' para illar o servizo.  
CanFreeze=yes → Pódese utilizar a acción 'systemctl freeze' para conxelar o servizo.

**Arranque do servidor:**  
# systemctl start filezilla-server #Premer Enter

**Comprobar estado servidor:**  
# systemctl status filezilla-server #Premer Enter

**Configuración servidor en /opt/filezilla-server/etc a través do Panel de administración: filezilla-server-gui**

**Exemplo1**  
Panel de administración  
→ Acceso e configuración por defecto

Ficheiro binario  
/opt/filezilla-server/bin/filezilla-server-gui

\$ cd /opt/filezilla-server/bin  
\$ ./filezilla-server-gui &  
Connect to Server...  
Host: localhost  
Port: 14148  
Password: \*\*\*\*\*

Usuario ftp  
anonymous sen acceso

```
$ ftp localhost
Trying [::1]:21 ...
Connected to localhost.
220-FileZilla Server 1.8.0
220 Please visit https://filezilla-project.org/
Name (localhost:kali): anonymous
331 Please, specify the password.
Password:
530 Login incorrect.
ftp: Login failed
ftp> user kali
331 Please, specify the password.
Password:
530 Login incorrect.
Login failed.
ftp> quit
221 Goodbye.
$
```

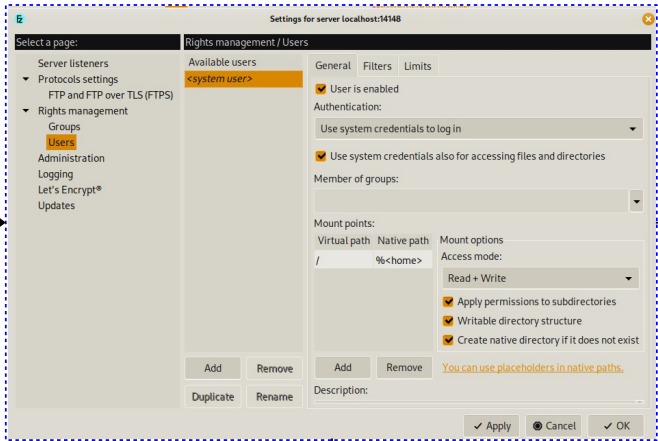
Server → Configure...  
Server Listeners:  
AddressPortProtocol  
0.0.0.021Explicit FTP over TLS and insecure plain FTP  
::21Explicit FTP over TLS and insecure plain FTP  
Por defecto, en IPv4(0.0.0.0) e IPv6(::) calquera NIC do servidor está en modo "listen" para o servidor FTP  
Users...  
<system user> → Disable

Usuario de sistema  
kali sen acceso

Configuración  
Sección Configure

```
$ ftp localhost
Trying [::1]:21 ...
Connected to localhost.
220-FileZilla Server 1.8.0
220 Please visit https://filezilla-project.org/
Name (localhost:kali): kali
331 Please, specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> quit
221 Goodbye.
$
```

Usuario de sistema  
kali con acceso



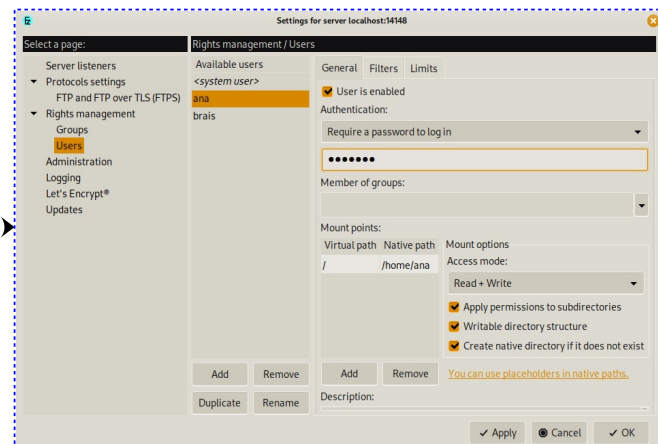
Apply  
Aplicar configuración

**Exemplo2**  
Panel de administración  
→ Usuarios de sistema

Configuración  
Sección Configure

**Exemplo3**  
Panel de administración →  
Usuarios virtuais  
(non existentes no sistema)

Configuración  
Sección Configure

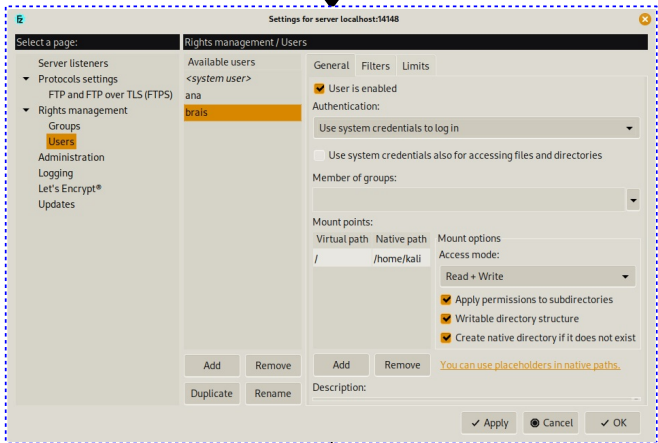


Apply  
Aplicar configuración

Usuario virtual ana  
Sen conta de sistema

```
$ ftp localhost
Trying [::1]:21 ...
Connected to localhost.
220-FileZilla Server 1.8.0
220 Please visit https://filezilla-project.org/
Name (localhost:kali): ana
331 Please, specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> quit
221 Goodbye.
$
```

**Exemplo4**  
Panel de administración →  
Usuarios virtuais con  
Native Path existentes  
no sistema



Similar ao Exemplo3, pero cambiar:  
→ Native Path  
→ Authentication

Apply  
Aplicar configuración

```
$ ftp localhost
Trying [::1]:21 ...
Connected to localhost.
220-FileZilla Server 1.8.0
220 Please visit https://filezilla-project.org/
Name (localhost:kali): brais
331 Please, specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> quit
221 Goodbye.
$
```

Usuario virtual brais  
Con acceso ao perfil do usuario kali  
(/home/kali)

**Permisos ugo**  
\$ sudo chgrp -R ftp /home/kali  
\$ sudo find /home/kali -type f -exec chmod 664 {} \  
\$ sudo find /home/kali -type d -exec chmod 775 {} \  
\$