FTP Server Configuration testing

This document has the purpose of describing and showing evidence of the testing and functionality of the FTP Server's configuration, including screenshots of attempted connections to both servers from a Debian 12 computer. The connection to the anonymous user is done using *ftp* from the secondary NS machine from the activity's required configuration, while the connection to the local user server is done from a Debian 12 graphic interface computer with Filezilla installed in order to allow secured connections using the needed certificate

Mirror FTP server (anonymous server)

Anonymous users do not require password to login
The connection shows a banner when welcoming and asking for login, and also shows an Ascii art banner when logged in

```
vagrant@ns:~$ ftp 192.168.57.20
Connected to 192.168.57.20.
220 Welcome to SRI FTP anonymous server
Name (192.168.57.20:vagrant): anonymous
230-
230-
230-
230-I8,        8        ,8I          88
230-`8b       d8b       d8'          88
230- "8,     ,8"8,     ,8"           88
230-  Y8     8P Y8     8P  ,adPPYba, 88  ,adPPYba,  ,adPPYba,  88,dPYba,,adPYba,   ,adPPYba,
230-  `8b   d8' `8b   d8' a8P_____88 88 a8"     "" a8"     "8a 88P'   "88"    "8a a8P_____88
230-   `8a a8'   `8a a8'  8PP""""""" 88 8b         8b       d8 88      88      88 8PP"""""""
230-    `8a8'     `8a8'   "8b,   ,aa 88 "8a,   ,aa "8a,   ,a8" 88      88      88 "8b,   ,aa
230-     `8'       `8'     `"Ybbd8"' 88  `"Ybbd8"'  `"YbbdP"'  88      88      88  `"Ybbd8"'
230-
```

Local users are not allowed to enter the server

```
vagrant@ns:~$ ftp 192.168.57.20
Connected to 192.168.57.20.
220 Welcome to SRI FTP anonymous server
Name (192.168.57.20:vagrant): laura
530 This FTP server is anonymous only.
Login failed.
ftp>
```

Anonymous users have no write permissions, but can get files

```
ftp> put /vagrant/test.txt
local: /vagrant/test.txt remote: /vagrant/test.txt
200 PORT command successful. Consider using PASV.
550 Permission denied.
```

```
ftp> dir
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
-rwxr-xr-x    1 0        0            1018 Jan 03 11:19 ascii.message
226 Directory send OK.
```

```
ftp> dir
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
-rwxr-xr-x    1 0        0            1018 Jan 03 11:19 ascii.message
-rw-r--r--    1 0        0               0 Jan 03 11:27 text.txt
226 Directory send OK.
ftp> get text.txt
local: text.txt remote: text.txt
200 PORT command successful. Consider using PASV.
150 Opening BINARY mode data connection for text.txt (0 bytes).
226 Transfer complete.
```

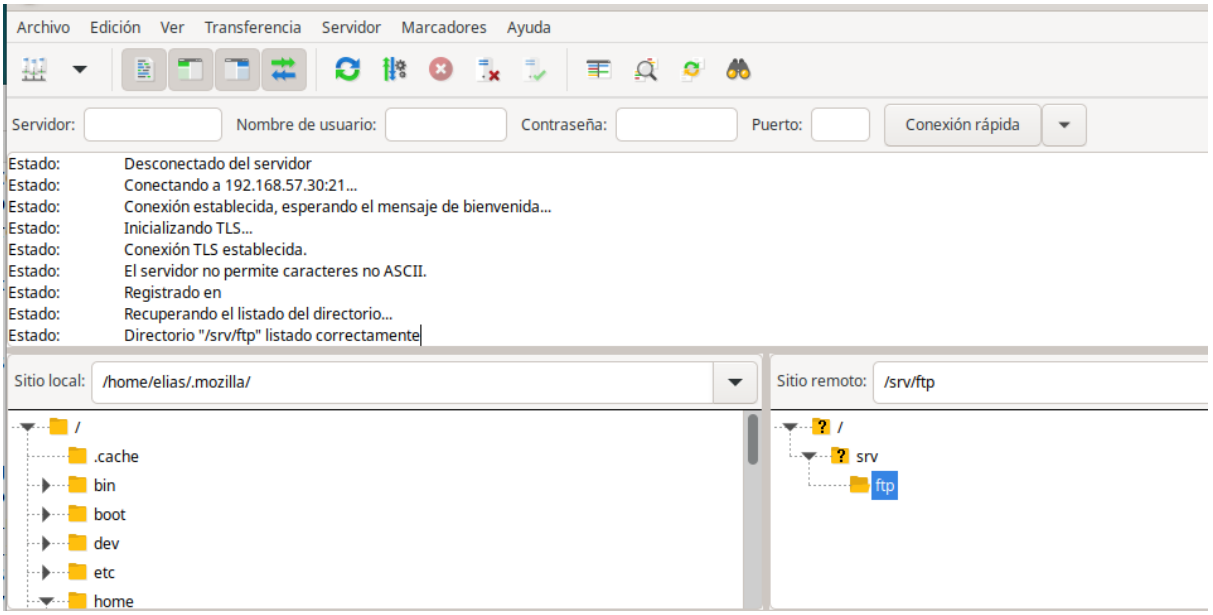
Connection eventually times out after 30 seconds inactive

```
ftp> dir
421 Timeout.
```

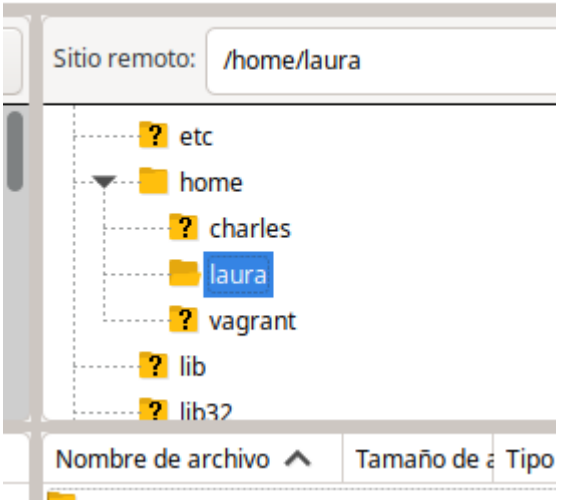
FTP Server (local user server)

This is the issued certificate for SLL/TLS connections to the server.
This is the Login banner of the server:

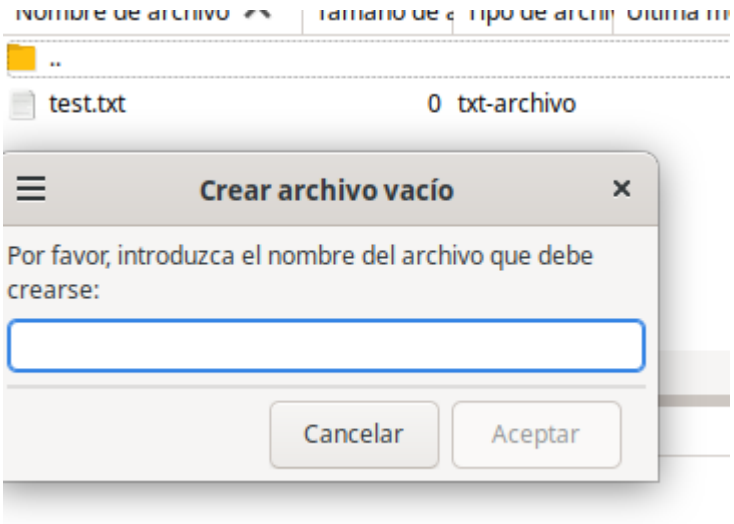
```
Estado:     Esperando para reintentar...
Estado:     Conectando a 192.168.57.30:21...
Estado:     Conexión establecida, esperando el mensaje de bienvenida...
Respuesta:  220 Welcome to SRI FTP server
```



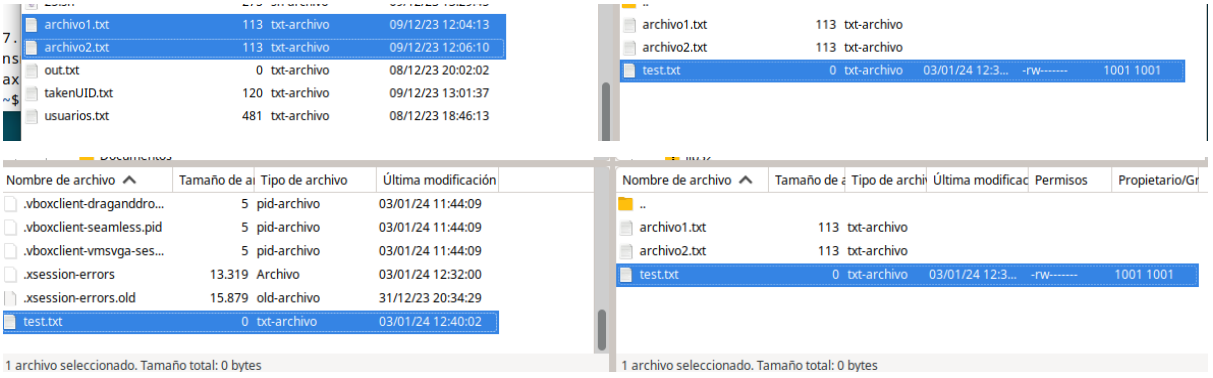
Laura successfully connected to the server. She is in the directory */srv/ftp* which is the default directory for connections made by local users. She is not chrooted as well, since she can exit the folder and see other directories of the server



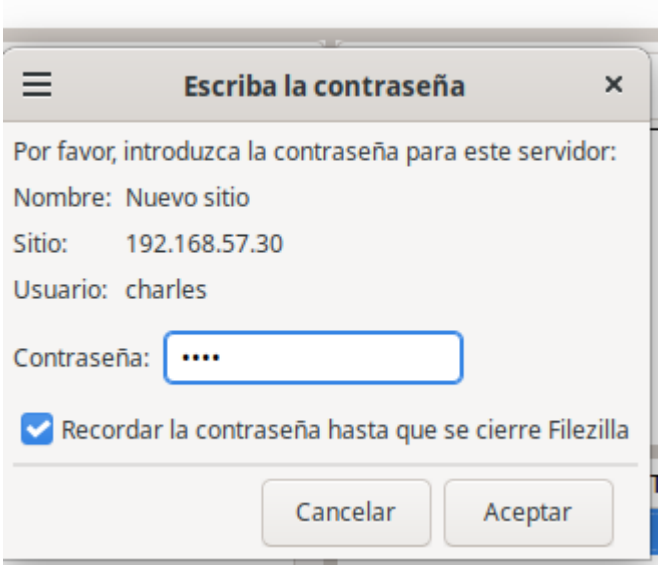
Here it can be seen she has changed directory to her home directory



She has write permissions, she can do anything. She can also get files and put files

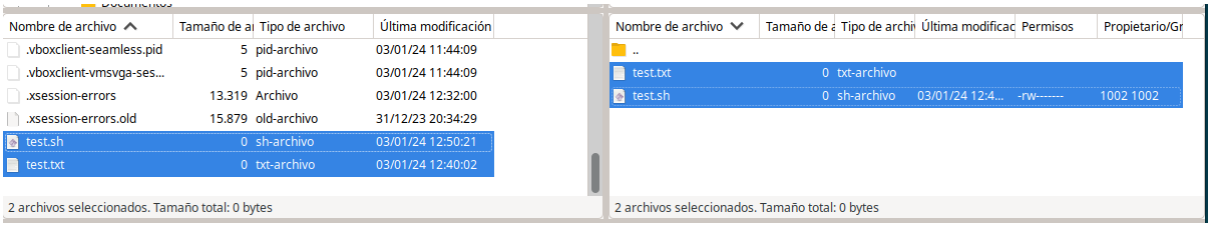


Now I will connect as charles

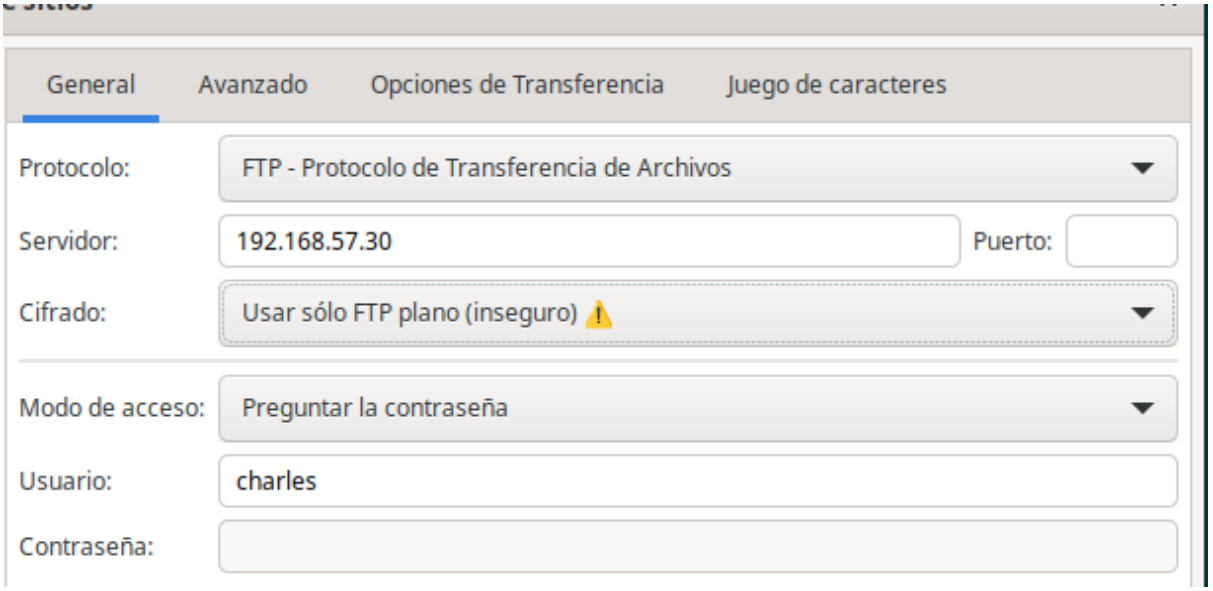


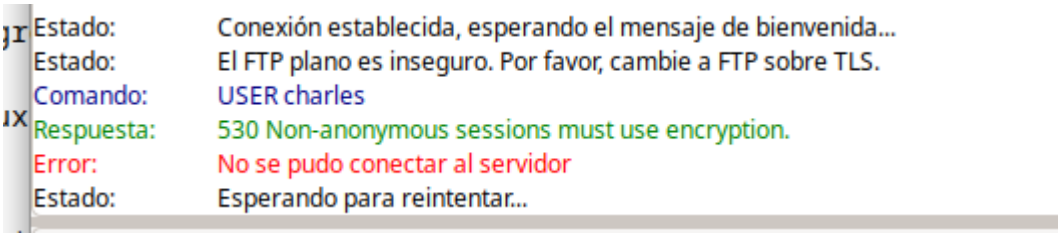
Charles is chrooted

Even tho he is chrooted and cannot edit main folder, he has permissions to edit the directory *chrooted* (original name) as it is his own working directory there, only he has permissions for the directory, plus he is also the owner of the folder. He can get, put and write in this folder

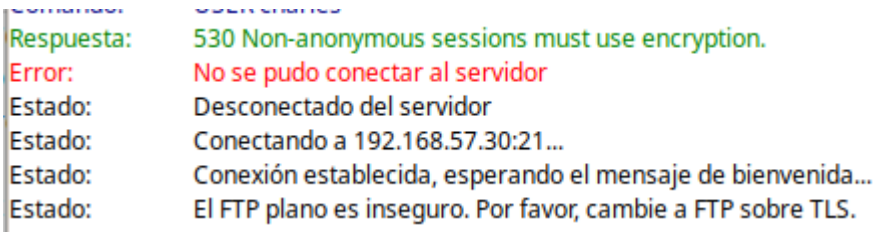


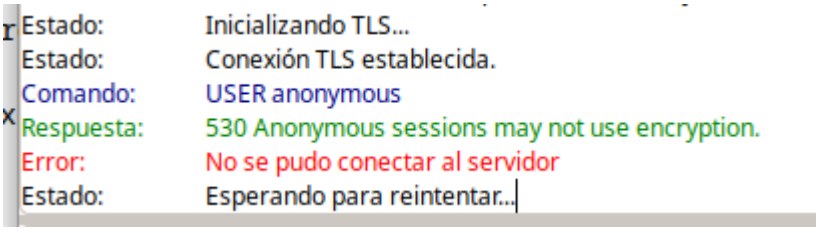
Now, if I attempt to connect using unsecured channels

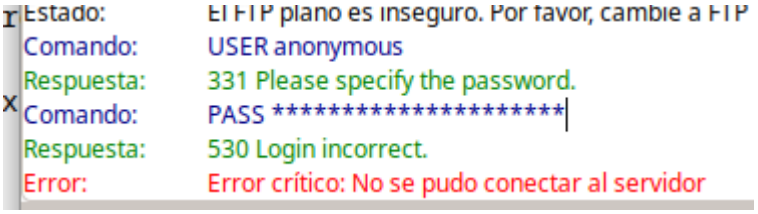




It will refuse the connection, because connections MUST be secured and encrypted
Anonymous connections are also refused by the server, no matter if they are encrypted or not







DNS server resolving

Reverse resolving

```
vagrant@sri:~$ nslookup 192.168.57.30
30.57.168.192.in-addr.arpa      name = ftp.sri.ies.

vagrant@sri:~$ nslookup 192.168.57.20
20.57.168.192.in-addr.arpa      name = mirror.sri.ies.
```

```
vagrant@sri:~$ nslookup 192.168.57.10
10.57.168.192.in-addr.arpa      name = ns.sri.ies.
```

```
vagrant@sri:~$ nslookup ftp.sri.ies
Server:         192.168.57.10
Address:        192.168.57.10#53

Name:   ftp.sri.ies
Address: 192.168.57.30

vagrant@sri:~$ nslookup mirror.sri.ies
Server:         192.168.57.10
Address:        192.168.57.10#53

Name:   mirror.sri.ies
Address: 192.168.57.20
```

```
vagrant@sri:~$ nslookup ns.sri.ies
Server:         192.168.57.10
Address:        192.168.57.10#53

Name:   ns.sri.ies
Address: 192.168.57.10
```

Normal resolving