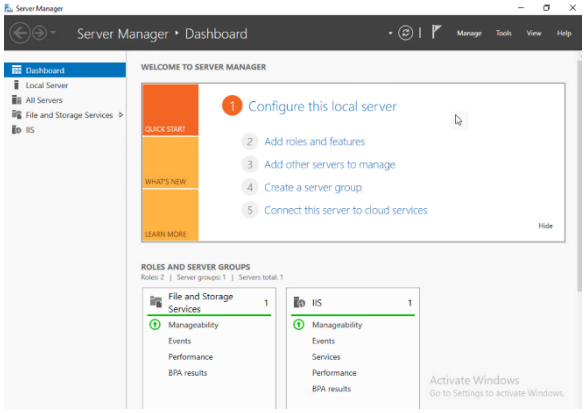
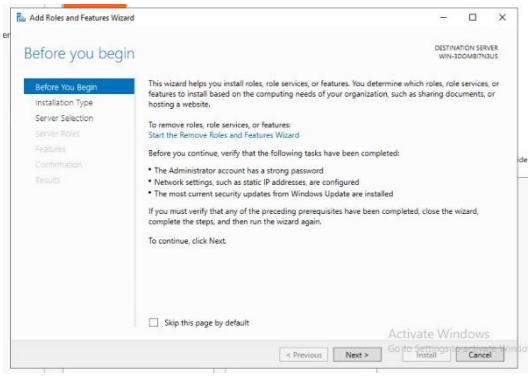
Windows FTP

1.0 How to install the FTP role on a Windows Server virtual machine

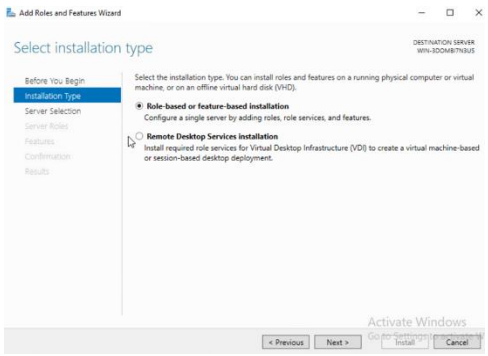
1. First you need to connect to your VM.
2. Open “Server Manager” and select “Add roles and features”.



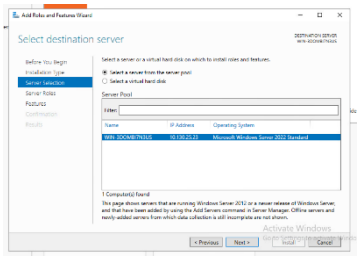
3. Click on **next.**



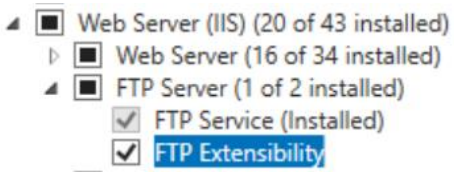
4. Select “Role-based or feature-based installation” and click on **next.**



5. Select “Select a server from the server pool” and click on **next.**

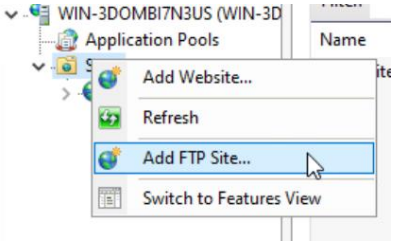


6. Choose “FTP Server” and click on **next** and then **install.**

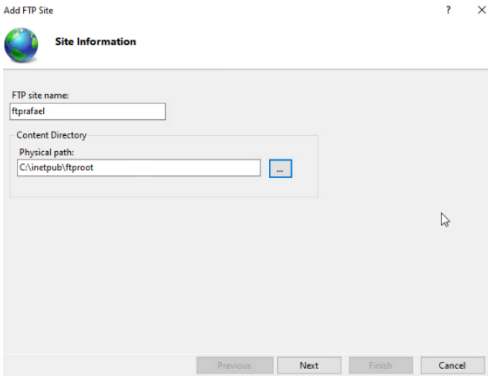


1.1 Anonymous access

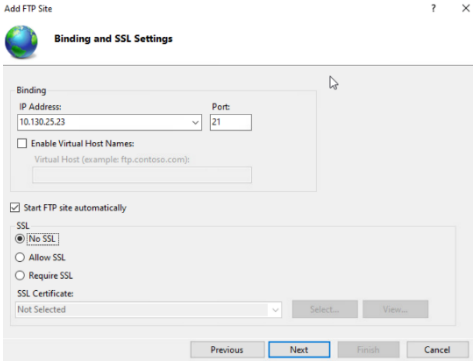
1. Open the IIS Manager.
2. Right click on “Sites” and the select “Add FTP Site…”.



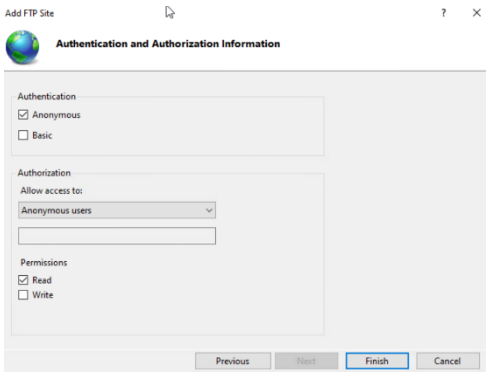
3. Choose an FTP site name and choose the physical path and then click on **next.**



4. Put your IP Address with the 21 port and for the security select “No SSL”, then, click on **next.**

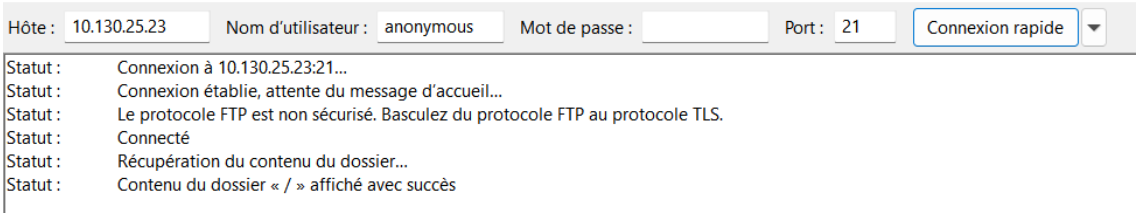


5. Select **anonymous** authentication and for the permission select **read** and then click on **next.**

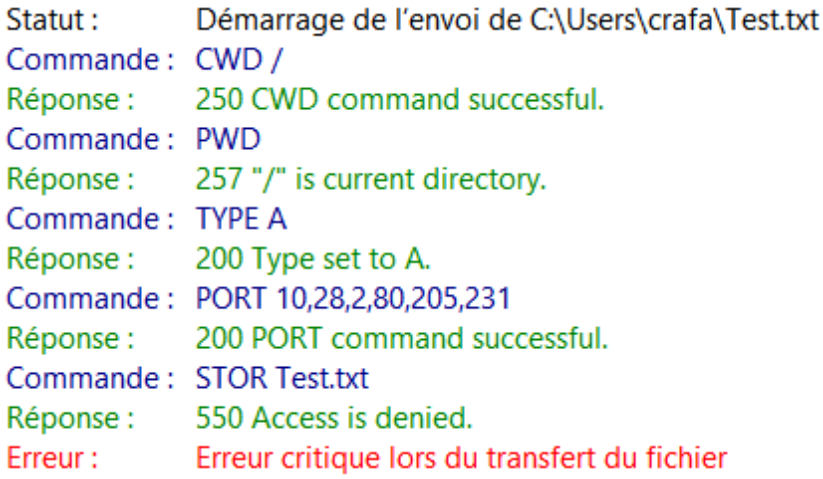


Testing the server:

With FileZilla, I connect myself to the server as anonymous:



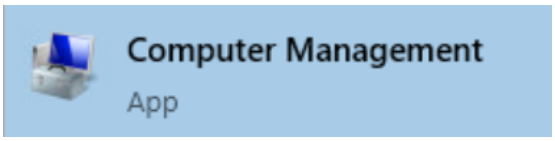
When I try to upload a file on the server, it gives me a **"550 Access is denied"** answer (because we gave read only permission to anonymous users).



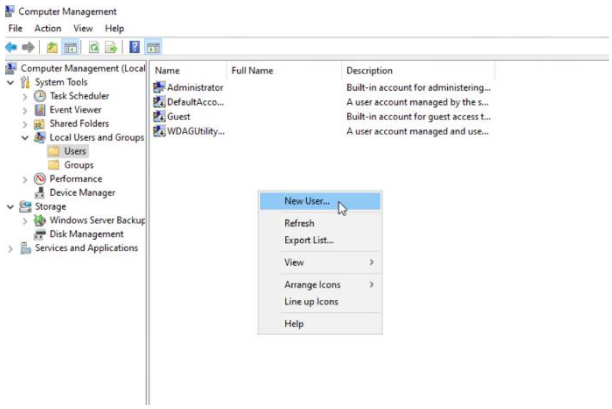
1.2 Authentication

How to make registered users:

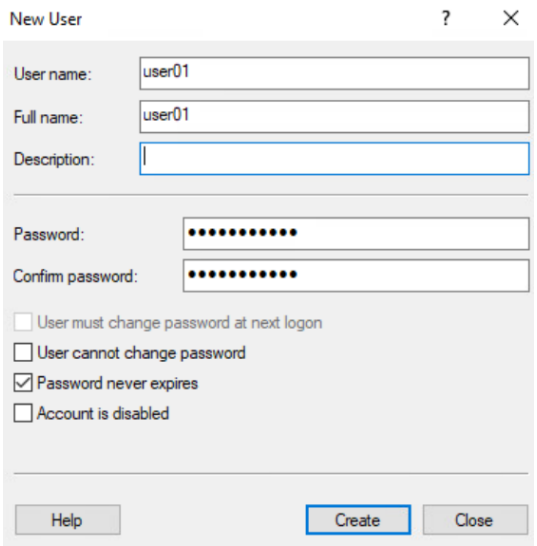
1. Open “Computer Management”.



2. Go to “Users”, right click, and select “New User…”.



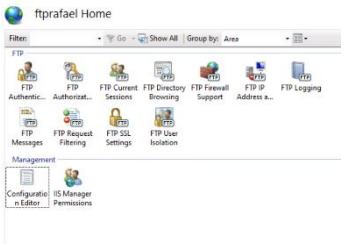
3. Choose a username, a full name, and a password. On the bottom you can choose some password options, I prefer to select “Password never expires”. Then click on **create.**



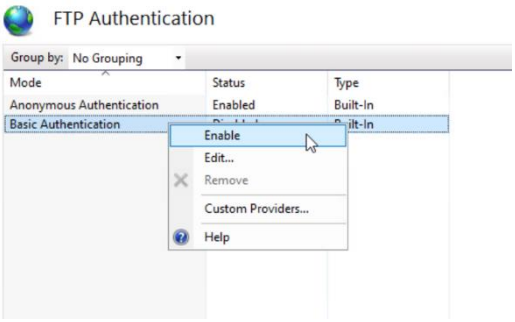
If you want to create more users, just repeat the process.

Give read/write access to registered users

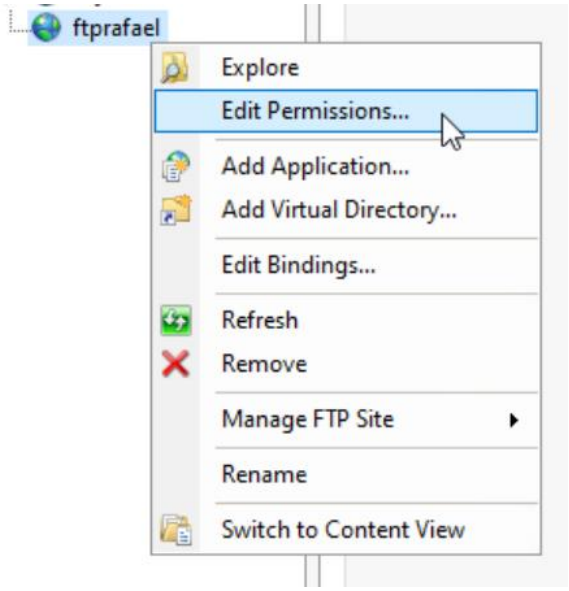
1. Open the IIS Manager.
2. On your ftp server, click on “FTP Authentication” .



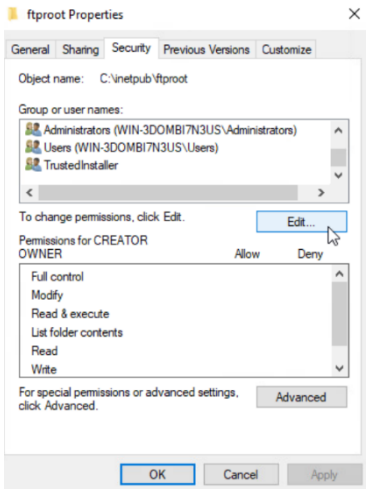
3. Enable “Basic Authentication”.



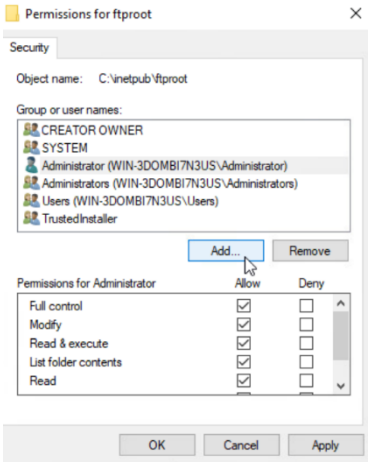
4. Right click on your ftp server → “Edit Permissions…”.



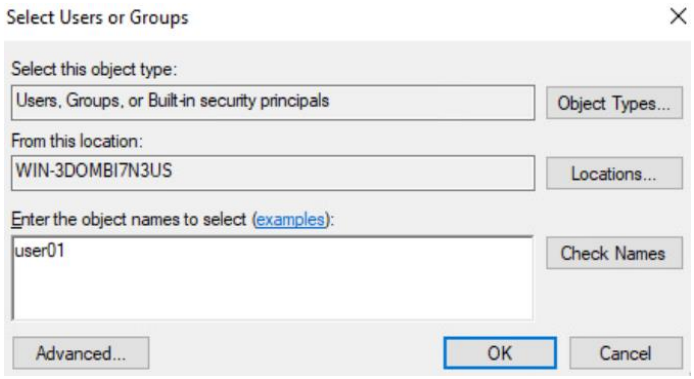
5. Go on “Security” and then click on **edit.**



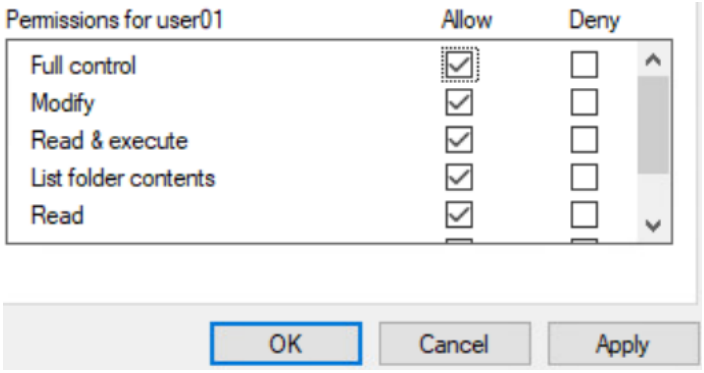
6. Select **add.**



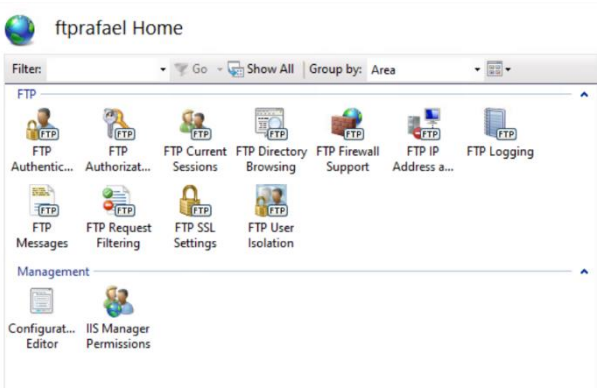
7. Enter your username and click on “Check Names” and then **OK.**



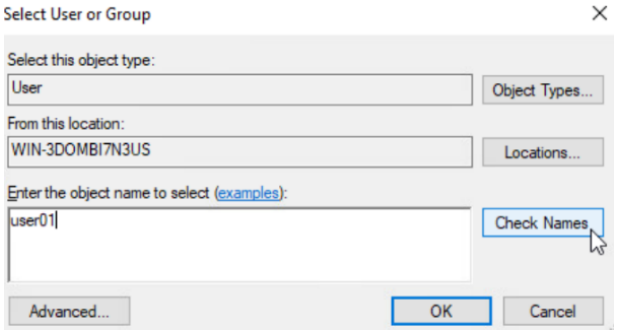
8. On the permissions for your user, allow everything and then click on **OK.**



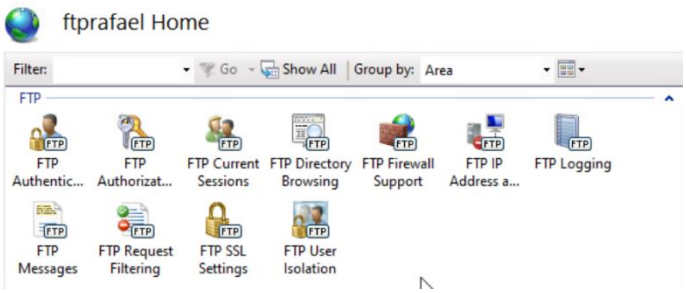
9. Then select “IIS Manager Permissions”.



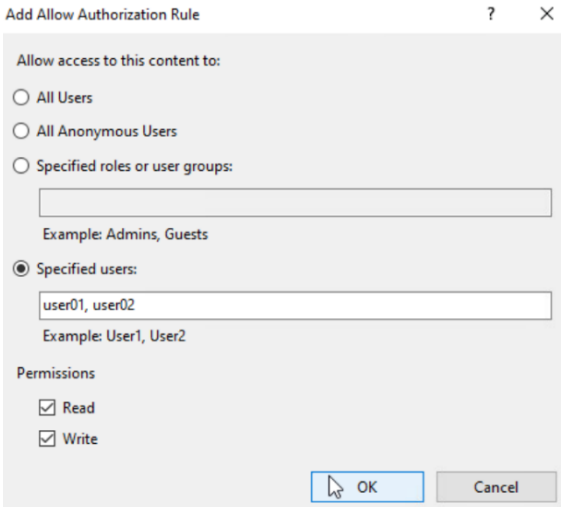
10. Click on allow user and add your users.



11. On your ftp server, select “FTP Authorization rule”.

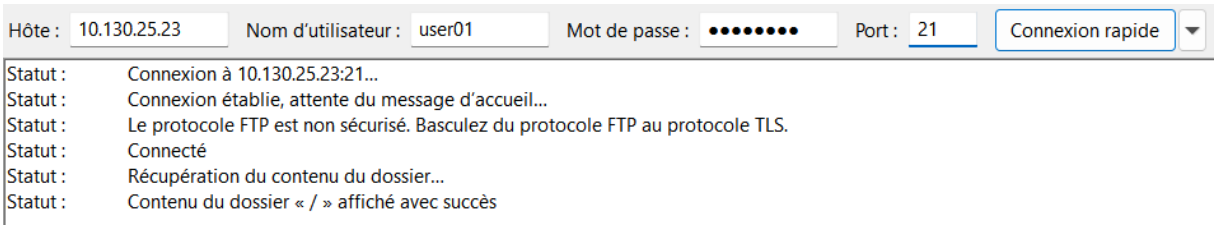


12. Add a rule that allow your users to read and write.



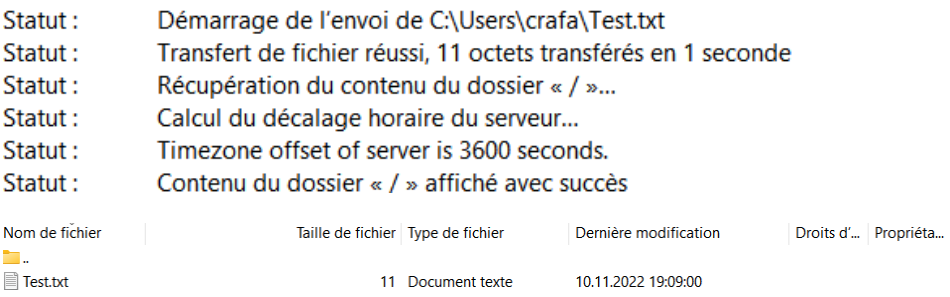
Testing the server with an FTP client:

With FileZilla, I connect myself with a user.



I can see that I have the read access, because I can see the content of the file.

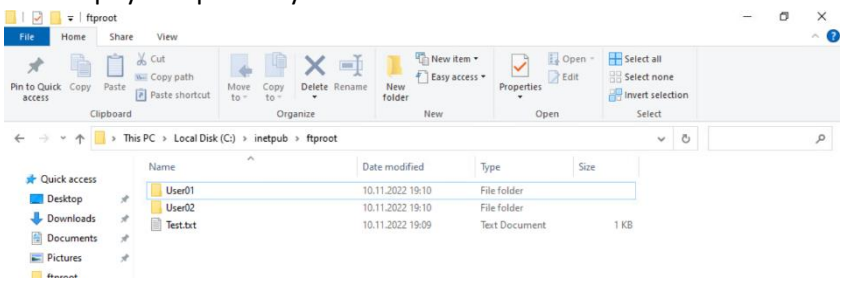
I try to upload a file on the ftp server to see if I have the write access.



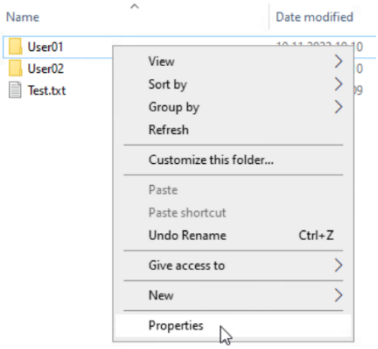
It worked; the file is now on the server.

1.3 Isolation

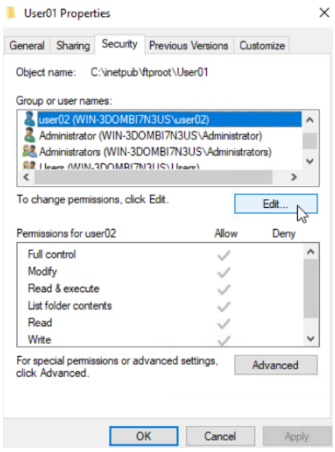
1. On the physical path of your FTP server create a folder for each user.



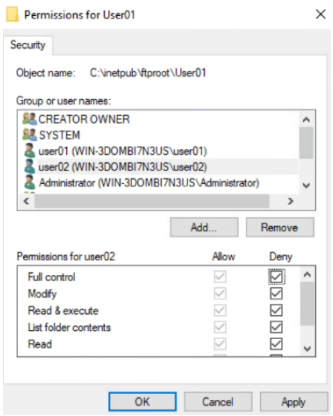
2. Then we must change the permissions so a user can't have access to the other user's folder.
3. We right click on the folder of the User01 and select "Properties"



4. We go to "Security" and select the user02, we click on **edit.**



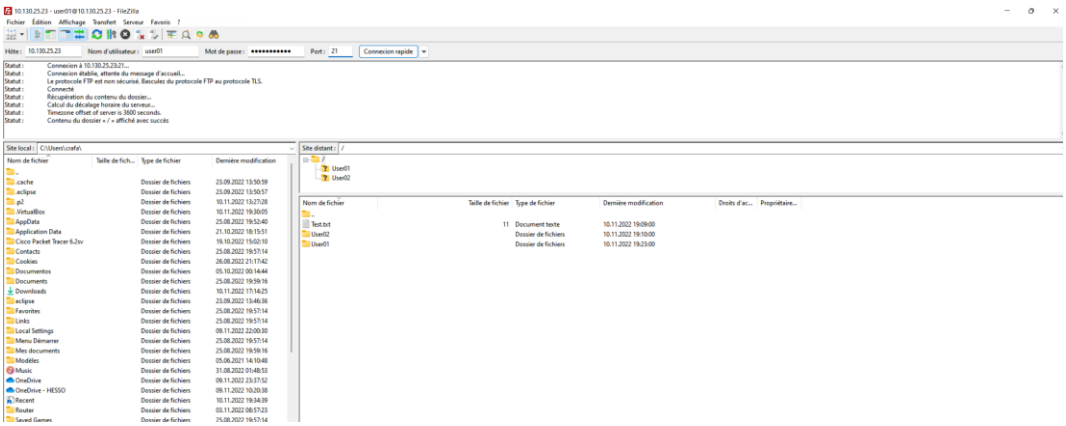
5. We deny all the permissions for the user02 and then click on **OK.**



For all the other users, the process is the same.

Testing the isolation with an FTP client

I connect myself to the ftp server with the user01.



I try to open the folder “User02”.

```
Commande :   CWD User02
Réponse :    550 Access is denied.
Erreur :     Impossible de récupérer le contenu du dossier
```

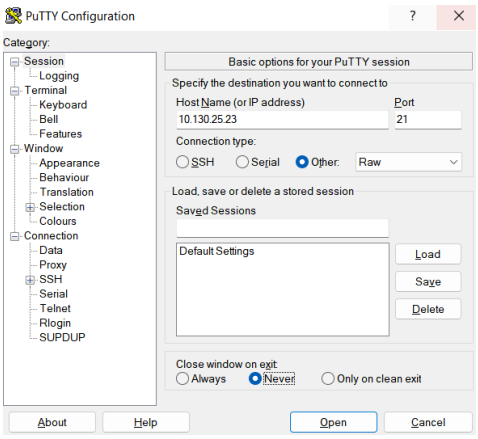
I can’t open the folder; the server gave me an answer “550 Access is denied”

If I try to open the folder of the user01 with the user02, the same message appears:

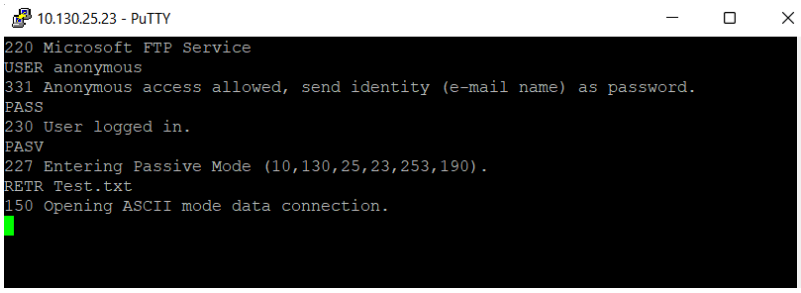
```
Commande :   CWD User01
Réponse :    550 Access is denied.
Erreur :     Impossible de récupérer le contenu du dossier
```

1.4 Download a file

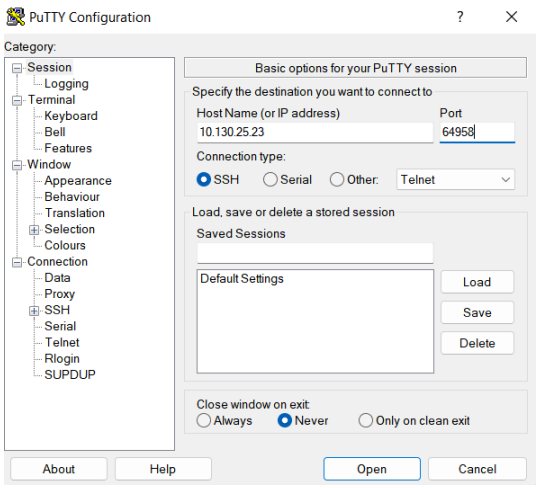
1. With putty, connect to your FTP server.



2. Connect as an anonymous and do the command RETR to download the file that you want.



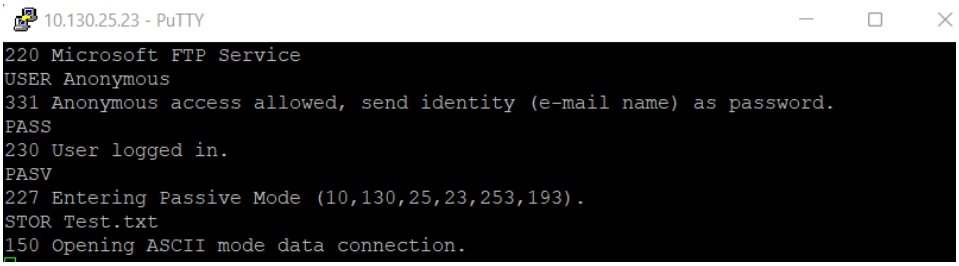
3. We need to open a 2nd putty session. To calculate the port, we do the following formula:
   a. (5th number x 256) + 6th number



4. When we open the 2nd session, we have the “226 Transfer complete” answer that appears on the first session.

1.5 Upload a file

1. With putty, connect to your FTP server.
2. Connect as an anonymous and do the command STOR to download the file that you want.



3. We need to open a 2nd putty session. To calculate the port, we do the following formula:
   a. (5th number x 256) + 6th number

4. We write on the 2nd session what we want to be the content of the uploaded file.

5. When we close the 2nd session, we can see on the 1st on the answer “226 Transfer complete”.

6. We can go on the physical path of our FTP server to check if the file was really uploaded: