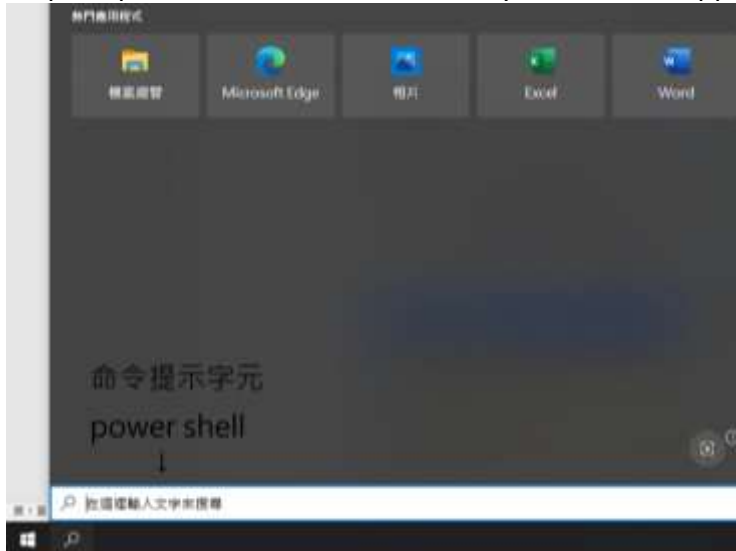


EECS302002 計算機網路概論

SSH server tutorial

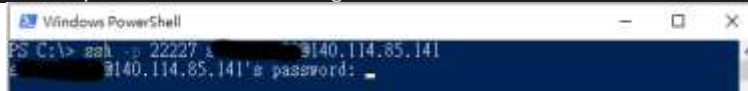
1. Use SSH to connect to canlab server

Step1: Open cmd or Power Shell or any other shell support ssh



Step2: Enter SSH command, use port number 22227 (case sensitive)

```
ssh -p 22227 username@140.114.85.141
```



username = "s" + your student ID (ex. s110062401@140.114.85.141)

password = 123

Step3: Use passwd to change your password **immediately**



For more information, check [linux ssh](#)

2. Use SCP to transfer files

step1: Open cmd or Power Shell or any other shell support ssh

step2: Enter SCP command, use port number 22227 (case sensitive)

```
scp -P 22227 <source> <destination>
```

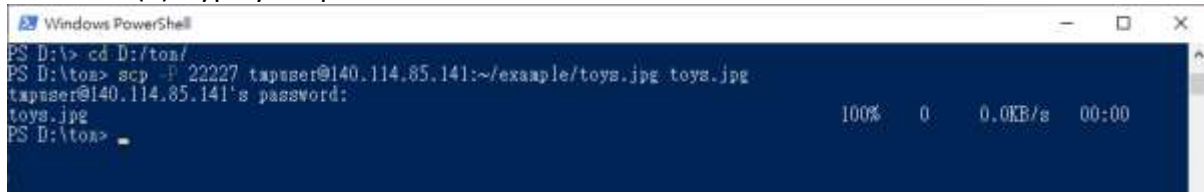
In Ubuntu, path "~/" = "/home/[user]/"

example 1: Download [user@host]:~/example/toys.jpg and save at D:/ton/

(1) cd D:/ton

(2) Enter scp -P 22227 [user@host]:~/example/toys.jpg toys.jpg

(3) Type your password



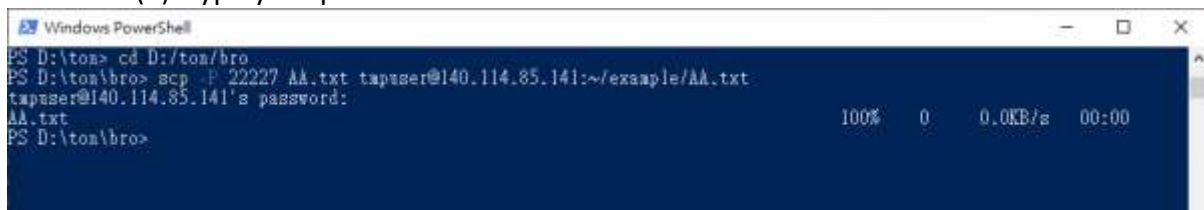
```
Windows PowerShell
PS D:\> cd D:/ton/
PS D:\ton> scp -P 22227 tmpuser@140.114.85.141:~/example/toys.jpg toys.jpg
tmpuser@140.114.85.141's password:
toys.jpg 100% 0 0.0KB/s 00:00
PS D:\ton>
```

example 2: Upload D:/ton/bro/AA.txt to [user@host]:~/example/

(1) cd D:/ton/bro

(2) Enter scp -P 22227 AA.txt [user@host]:~/example/AA.txt

(3) Type your password



```
Windows PowerShell
PS D:\ton> cd D:/ton/bro
PS D:\ton\bro> scp -P 22227 AA.txt tmpuser@140.114.85.141:~/example/AA.txt
tmpuser@140.114.85.141's password:
AA.txt 100% 0 0.0KB/s 00:00
PS D:\ton\bro>
```

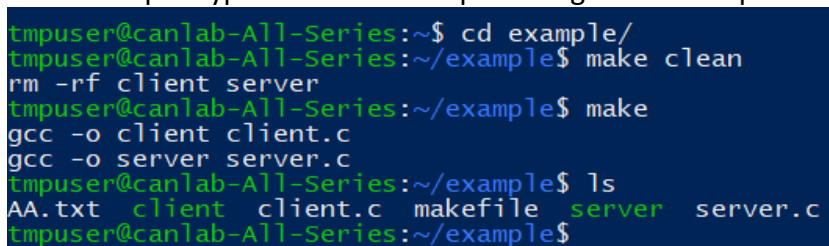
For more information, check [Linux scp](#)

3. Use makefile to compile C files or delete output files

Step1: Enter your working directory

Step2: Type "make clean" to delete old output files

Step3: Type "make" to compile and generate output files



```
tmpuser@canlab-All-Series:~$ cd example/
tmpuser@canlab-All-Series:~/example$ make clean
rm -rf client server
tmpuser@canlab-All-Series:~/example$ make
gcc -o client client.c
gcc -o server server.c
tmpuser@canlab-All-Series:~/example$ ls
AA.txt client client.c makefile server server.c
tmpuser@canlab-All-Series:~/example$
```

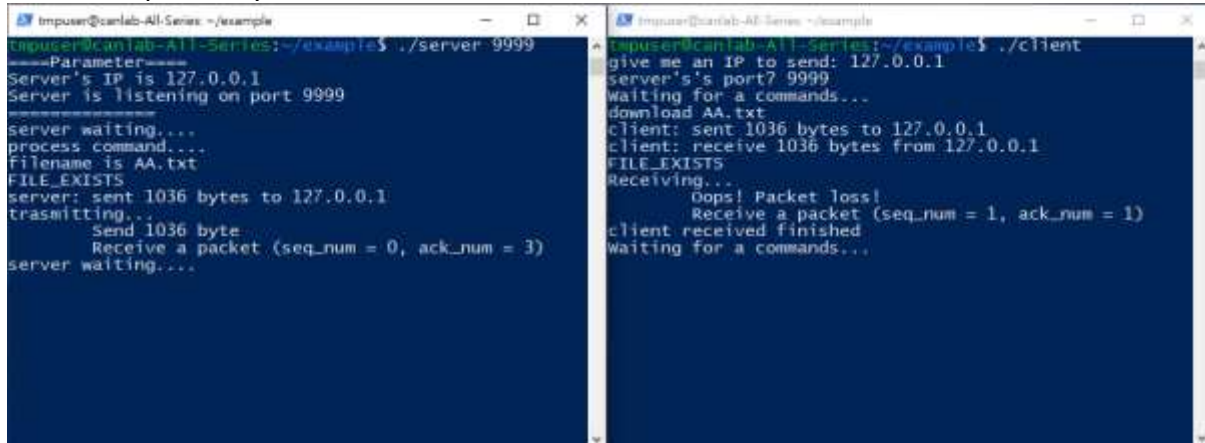
4. Run your program

Step1: Open 2 cmd or Power Shell or any other shell support ssh

Step2: Both connect to SSH server

Step3: Run your server on a cmd and specify port number

Step4: Run your client on the other cmd



```
Impuser@cantab-A11-Series: ~/example
Impuser@cantab-A11-Series:~/example$ ./server 9999
=====Parameter=====
Server's IP is 127.0.0.1
Server is listening on port 9999
server waiting....
process command....
Filename is AA.txt
FILE_EXISTS
server: sent 1036 bytes to 127.0.0.1
transmitting...
Send 1036 byte
Receive a packet (seq_num = 0, ack_num = 3)
server waiting....

Impuser@cantab-A11-Series:~/example$ ./client
give me an IP to send: 127.0.0.1
server's's port? 9999
Waiting for a commands...
download AA.txt
client: sent 1036 bytes to 127.0.0.1
client: receive 1036 bytes from 127.0.0.1
FILE_EXISTS
Receiving...
Oops! Packet loss!
Receive a packet (seq_num = 1, ack_num = 1)
client received finished
Waiting for a commands...
```

5. Other useful Linux commands

[Linux 常用指令 - HackMD](#)

6. Alternative way: [\[推薦\] MobaXterm - 強大方便好操作的 SSH Client 客戶端連線軟體 - RicharLin.tw](#)