

# 1 Exemplo 3. Aplicacións prácticas do Exemplo2

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## 2 Exemplo 3. Aplicacións prácticas do Exemplo2

### 2.1 OBRIGATORIA LECTURA. ESCENARIO

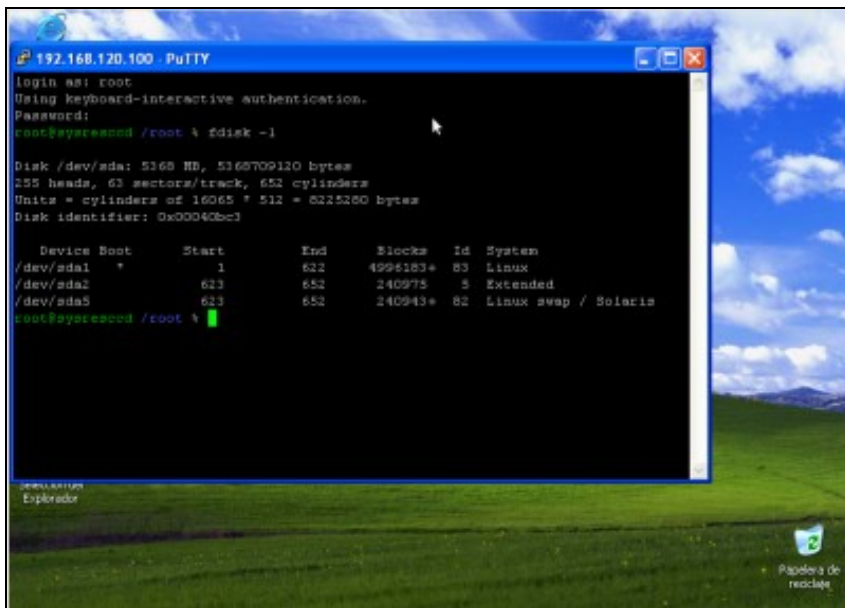
#### NOTAS:

1. Todos estes exemplos son válidos unha vez feito o **Exemplo2**
2. No **Exemplo2** o disco duro a montar na distribución Live SystemRescueCD posúe unha distribución GNU/Linux a recuperar
3. Picar nas imaxes para velas no tamaño orixinal

### 2.2 Recuperación dun Sistema Operativo GNU/Linux mediante unha Xaula chroot

#### 2.2.1 Recuperar a password de root

Unha vez establecida a conexión co **Servidor SSH** proceder do seguinte xeito:



```
192.168.120.100 - PuTTY
login as: root
Using keyboard-interactive authentication.
Password:
root@sysrescuecd /root ~# fdisk -l

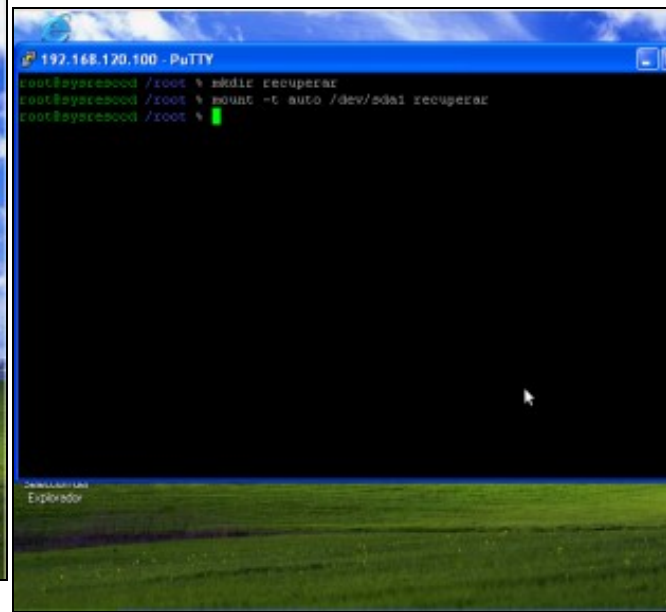
Disk /dev/sda: 5368 MB, 5368709120 bytes
255 heads, 63 sectors/track, 652 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Disk identifier: 0x00040bc1

   Device Boot      Start         End      Sectors  Id System
/dev/sda1 *          1           622    4996183+  83  Linux
/dev/sda2            623           652     240975   5  Extended
/dev/sda5            623           652     240945+  82  Linux swap / Solaris
root@sysrescuecd /root ~#
```

#### a. Ver a táboa de particións do equipo (fdisk -l).

Neste caso a distribución Linux ten 2 particións:

1. /dev/sda1: A partición / onde está montado todo o sistema de ficheiros.
2. /dev/sda5: A partición **swap** adicada ao espazo de intercambio.

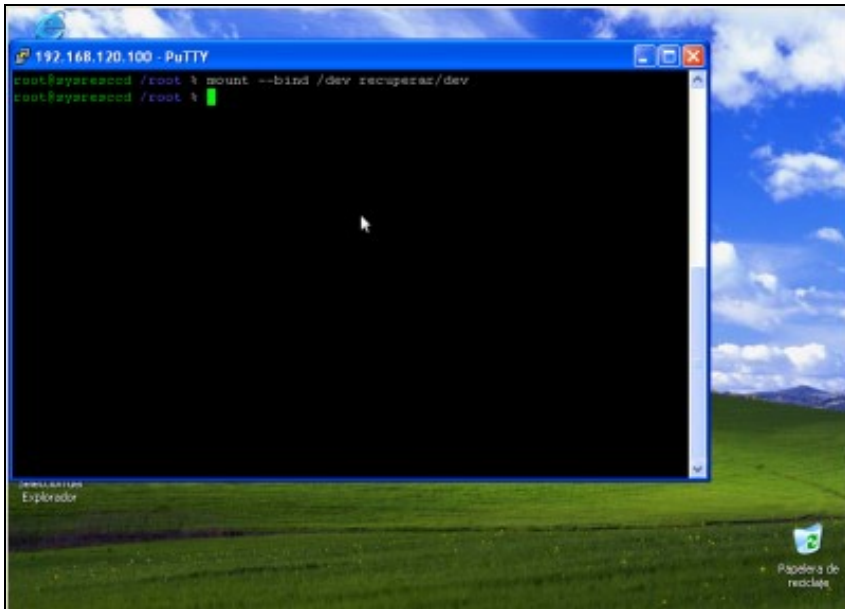


```
192.168.120.100 - PuTTY
root@sysrescuecd /root ~# mkdir recuperar
root@sysrescuecd /root ~# mount -t auto /dev/sda1 recuperar
root@sysrescuecd /root ~#
```

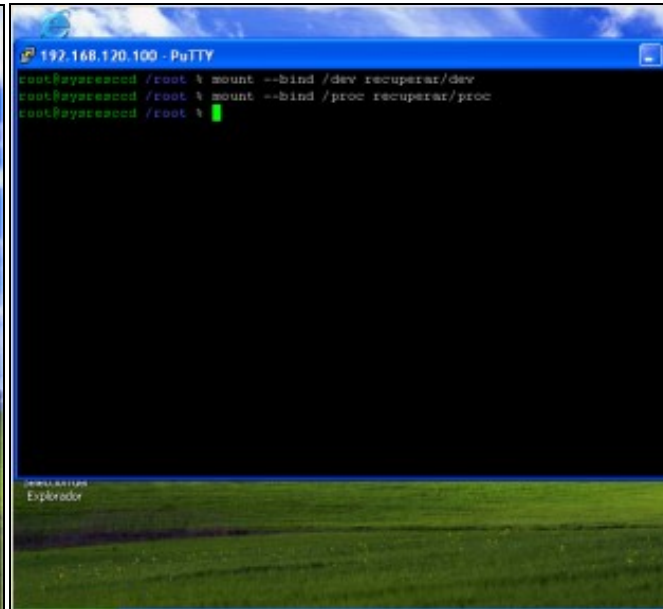
#### b. Crear cartafol para acceder á información do disco duro /dev/sda

No cartafol creado, en /root, mediante o comando **mkdir recuperar** a partición do disco /dev/sda co comando:

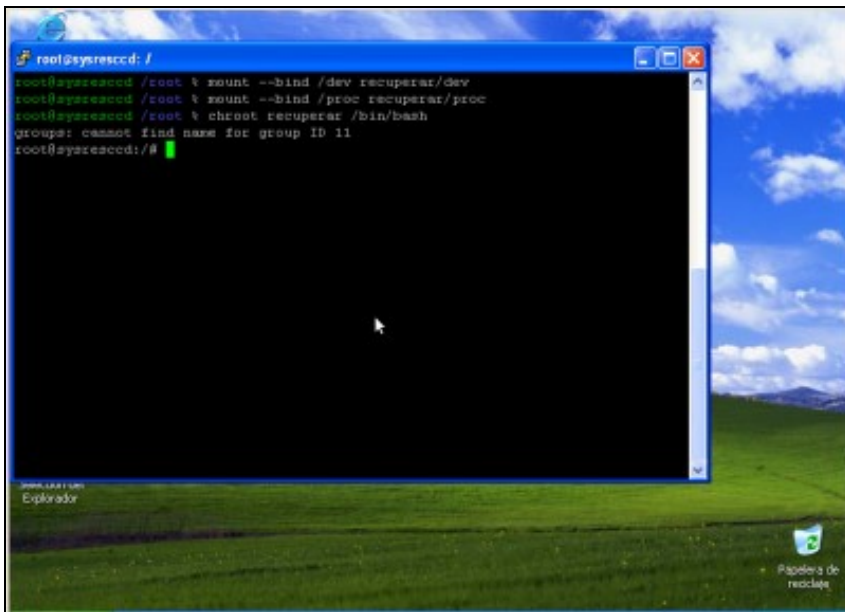
**mount -t auto /dev/sda1 recuperar**



c. Montar o cartafol /dev dentro de recuperar/dev para poder ter acceso a todos os dispositivos reconecidos pola distribución SystemRescueCD. Comando empregado: `mount --bind /dev recuperar/dev`

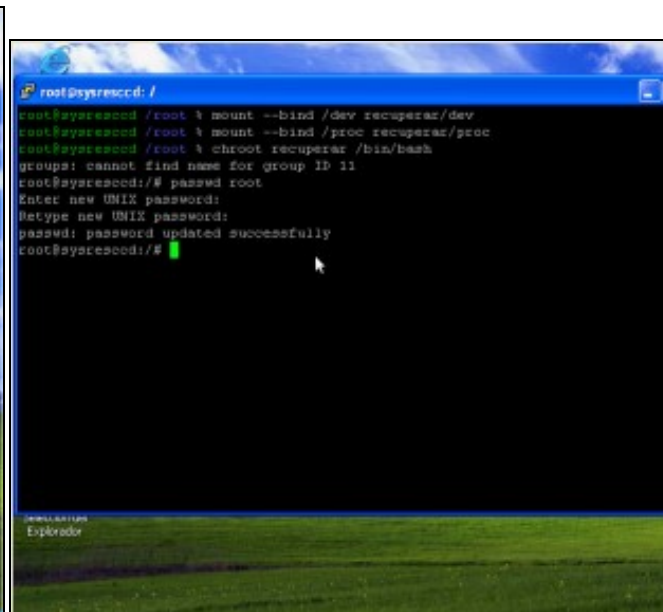


d. Montar o cartafol /proc dentro de recuperar/proc para poder ter acceso a todos os dispositivos reconecidos pola distribución SystemRescueCD. Comando empregado: `mount --bind /proc recuperar/proc`



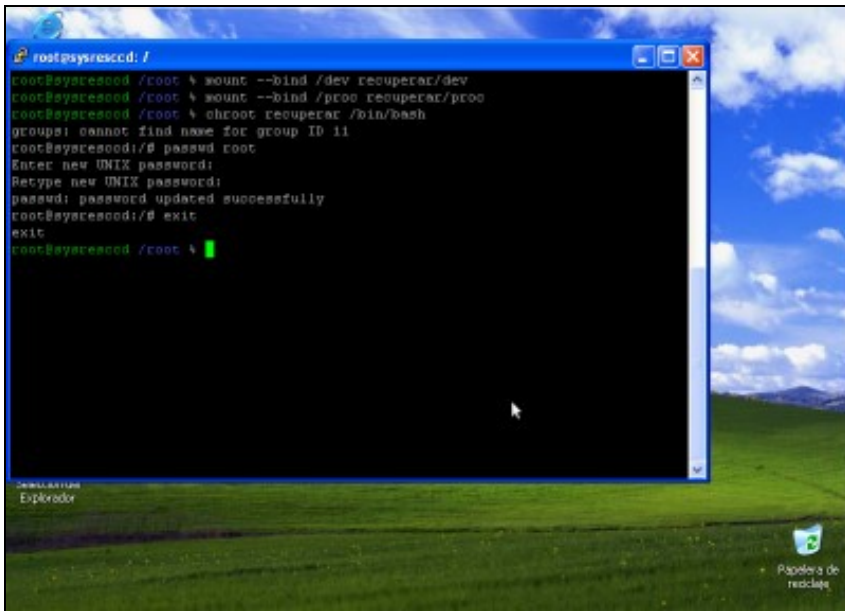
e. Crear a xaula chroot co comando `chroot recuperar /bin/bash`.

Con este comando creamos unha xaula: un entorno pechado para a distribución Linux dentro de recuperar, de tal xeito, que unha vez dentro da xaula soamente existe ésta, e dicir, soamente existe a distribución Linux a recuperar, xa non estamos traballando na SystemRescueCD.

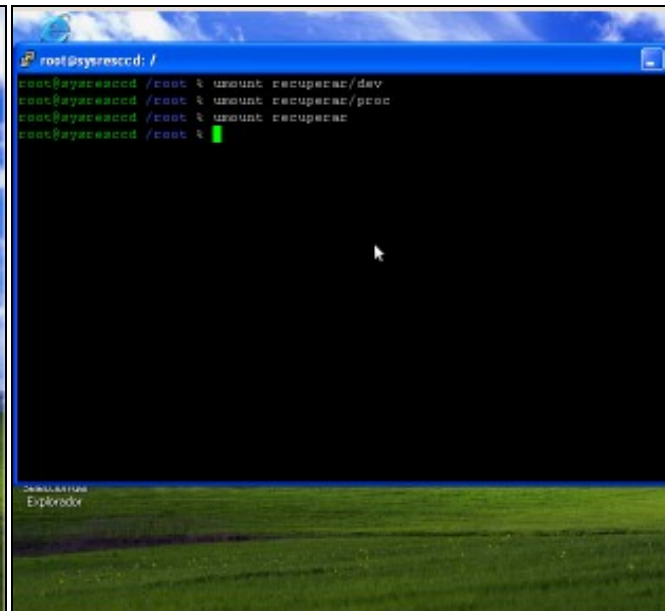


f. Cambiar contrasinal root.

Mediante o comando `passwd root` cambiamos o contrasinal de `root`, `abc123`, como novo contrasinal de `root`



g. Co comando exit saimos da xaula chroot.



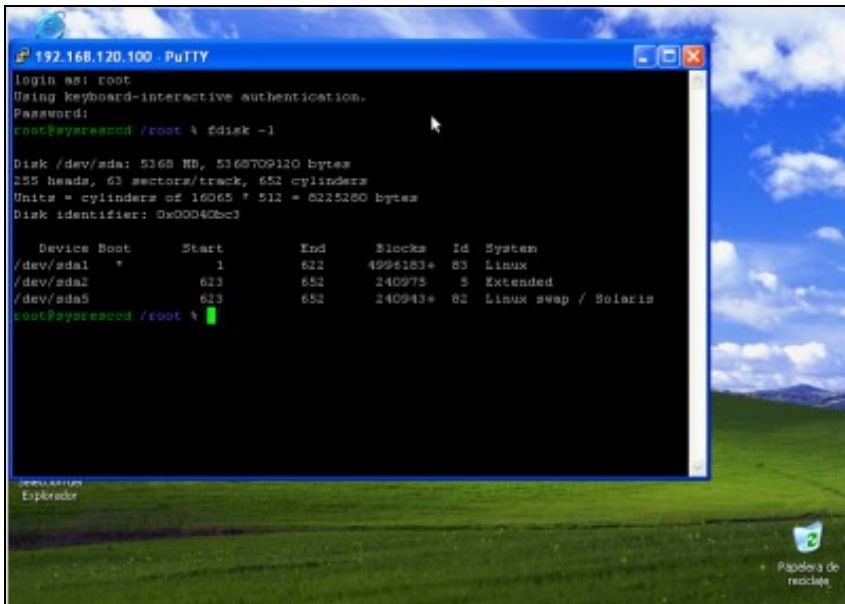
h. Desmontar unidades montadas:

1. umount recuperar/dev
2. umount recuperar/proc
3. umount recuperar

Apagar a SystemRescueCD e arrancar a distribución Linux recuperar para ver se funciona o contrasinal novo de root.

## 2.3 Copiar o cartafol HOME de todos os usuarios

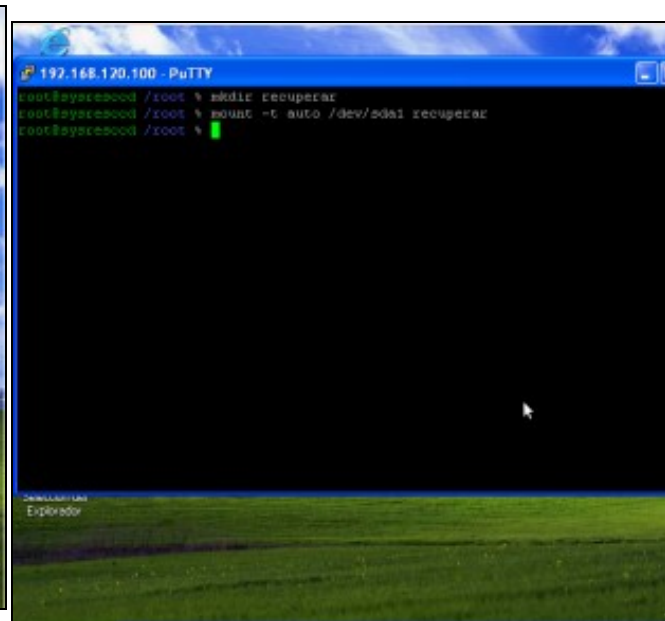
Unha vez establecida a conexión co Servidor SSH proceder do seguinte xeito:



a. Ver a táboa de particións do equipo (fdisk -l).

Neste caso a distribución Linux ten 2 particións:

1. /dev/sda1: A partición / onde está montado todo o sistema de ficheiros.
2. /dev/sda5: A partición swap adicada ao espazo de intercambio.



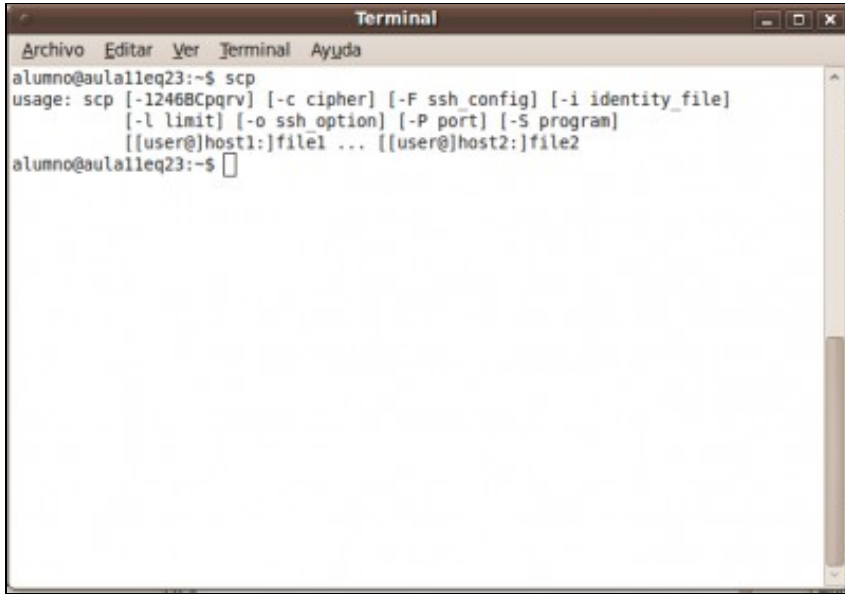
b. Crear cartafol para acceder á información do disco duro /dev/sda1.

No cartafol creado, en /root, mediante o comando **mkdir recuperar** e a partición do disco /dev/sda co comando:

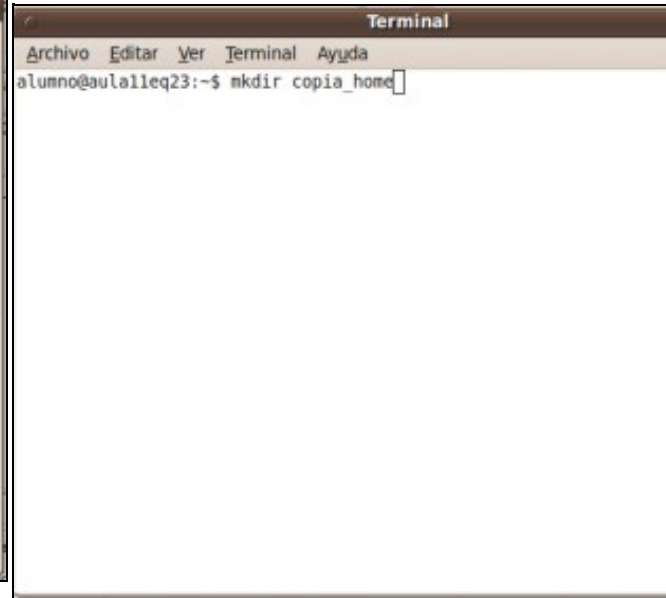
**mount -t auto /dev/sda1 recuperar**

### 2.3.1 Cliente Distribución GNU/Linux: Empregando o comando scp

Proceder:



```
Terminal
Archivo Editar Ver Terminal Ayuda
alumno@aulal1eq23:~$ scp
usage: scp [-12468Cpqrvt] [-c cipher] [-F ssh_config] [-i identity_file]
          [-l limit] [-o ssh_option] [-P port] [-S program]
          [[user@]host1:]file1 ... [[user@]host2:]file2
alumno@aulal1eq23:~$
```



```
Terminal
Archivo Editar Ver Terminal Ayuda
alumno@aulal1eq23:~$ mkdir copia_home
```

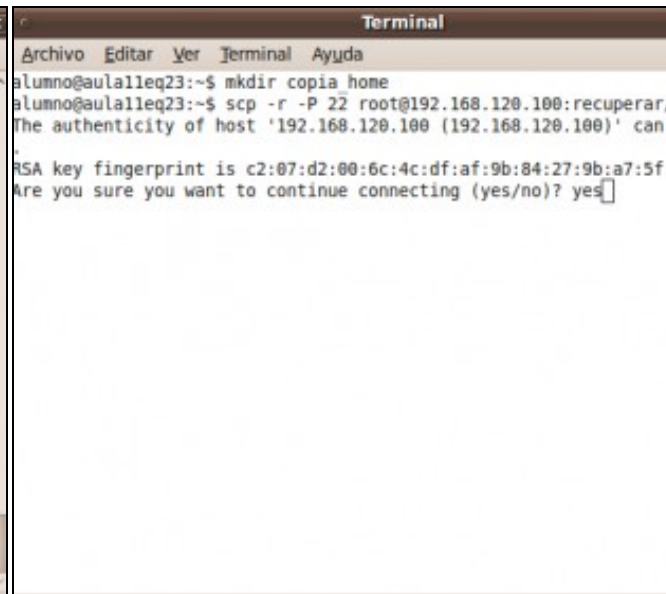
**a. Abrir un novo terminal para facer a copia mediante scp.**

Executando o comando **scp** podemos ver a sintaxe do mesmo.

**b. Crear o directorio destino da copia: copia\_home**



```
Terminal
Archivo Editar Ver Terminal Ayuda
alumno@aulal1eq23:~$ mkdir copia_home
alumno@aulal1eq23:~$ scp -r -P 22 root@192.168.120.100:recuperar/home copia_home/
```



```
Terminal
Archivo Editar Ver Terminal Ayuda
alumno@aulal1eq23:~$ mkdir copia_home
alumno@aulal1eq23:~$ scp -r -P 22 root@192.168.120.100:recuperar/
The authenticity of host '192.168.120.100 (192.168.120.100)' can
RSA key fingerprint is c2:07:d2:00:6c:4c:df:af:9b:84:27:9b:a7:5f
Are you sure you want to continue connecting (yes/no)? yes
```

**c. Copiar o HOME de todos os usuarios.**

Para copiar o HOME de todos os usuarios debemos empregar o comando scp como segue:

**scp -r -P 22 root@192.168.120.100:recuperar/home copia\_home**, onde:

1. **-r** significa recursivo, serve para copiar cartafols enteiros.
2. **-P 22** indica o porto de conexión SSH
3. **root@192.168.120.100** indica o usuario root na máquina 192.168.120.100
4. **:recuperar/home** indica o cartafol a copiar na ruta parcial recuperar/home, que ven sendo a ruta absoluta /root/recuperar/home, xa que no caso de non indicar a ruta absoluta sempre se parte da ruta da casa do usuario, neste caso o usuario é root, co cal pártese de /root
5. **copia\_home** é o cartafol destino da copia.

**d. Autenticación.** Se é a primeira vez que nos conectamos o servizo estamos de acordo coa autenticación. Respostamos **yes** e pulsamos a primeira vez ver a seguinte imaxe.



```

Terminal
Archivo Editar Ver Terminal Ayuda
alumno@aula11eq23:~$ mkdir copia home
alumno@aula11eq23:~$ scp -r -P 22 root@192.168.120.100:recuperar/home copia_home/

The authenticity of host '192.168.120.100 (192.168.120.100)' can't be established.
RSA key fingerprint is c2:07:d2:00:6c:4c:df:af:9b:84:27:9b:a7:5f:31:10.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '192.168.120.100' (RSA) to the list of known hosts.
Password:

```

```

Terminal
Archivo Editar Ver Terminal Ayuda
flash.js 100% 3437 3.4
flash.css 100% 119 0.1
content.css 100% 190 0.2
flash.htm 100% 2800 2.1
editor_plugin_src.js 100% 9723 9.9
editor_plugin.js 100% 925 0.9
readme.txt 100% 61 0.3
tr.js 100% 189 0.2
nl.js 100% 173 0.2
pl.js 100% 237 0.2
zh_tw.js 100% 277 0.3
ru.js 100% 264 0.3
sv.js 100% 202 0.2
zh_cn.js 100% 334 0.3
iespell.gif 100% 124 0.1
editor_plugin_src.js 100% 1438 1.4
editor_plugin.js 100% 966 0.9
props.htm 100% 27KB 27.1
nl.js 100% 1710 1.7
ar_dlg.js 100% 1942 1.9
es_dlg.js 100% 1667 1.6
pl.js 100% 1710 1.7
cs_dlg.js 100% 1915 1.9

```

e. Password da conexión do usuario root: toor. Pulsamos Enter

f. Copiando...

```

Terminal
Archivo Editar Ver Terminal Ayuda
XPC.mfasl 100% 2220KB 2.2MB/s 00:01
cookies.sqlite 100% 2048 2.0KB/s 00:00
extensions.rdf 100% 11KB 10.5KB/s 00:00
.gtk-bookmarks 100% 126 0.1KB/s 00:00
lc9061blef700f2d3b3950dc4b21559d-default-sourc 100% 42 0.0KB/s 00:00
lc9061blef700f2d3b3950dc4b21559d-device-volume 100% 60KB 60.0KB/s 00:00
lc9061blef700f2d3b3950dc4b21559d-card-database 100% 696 0.7KB/s 00:00
lc9061blef700f2d3b3950dc4b21559d-default-sink 100% 43 0.0KB/s 00:00
lc9061blef700f2d3b3950dc4b21559d-stream-volume 100% 72KB 72.0KB/s 00:00
lc9061blef700f2d3b3950dc4b21559d-0 100% 464 0.5KB/s 00:00
alumno@aula11eq23:~$

```

g. Copia feita

### 2.3.2 Cliente Windows: Empregando o comando pscp

NOTA: Para ver máis información sobre o comando pscp visitar a seguinte ligazón: [Comando pscp](#)

Proceder:

```

C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>cd Escritorio
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>pscp.exe
PuTTY Secure Copy client
Release 0.68
Usage: pscp [options] [user@]host[:source target]
pscp [options] source [source...] [user@]host[:target]
pscp [options] -ls [user@]host[:file:spec]

Options:
-U          print version information and exit
-pppfp     print PGP key fingerprints and exit
-p         preserve file attributes
-q         quiet, don't show statistics
-r         copy directories recursively
-v         show verbose messages
-load sessname Load settings from saved session
-P port    connect to specified port
-l user    connect with specified username
-pw passw login with specified password
-I -2     force use of particular SSH protocol version
-A -6     force use of IPv4 or IPv6
-C         enable compression
-i key     private key file for authentication
-noagent   disable use of Pageant
-agent     enable use of Pageant
-batch    disable all interactive prompts
-unsafe   allow server-side wildcards (DANGEROUS)
-xfp     force use of XFP protocol
-xcp     force use of SCP protocol

```

a. Abrir unha consola de comandos para facer a copia mediante pscp.

Executando o comando **pscp** podemos ver a sintaxe do mesmo.

```

C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>mkdir copia_home

```

b. Crear o directorio destino da copia: copia\_home

```

C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>pscp
PuTTY Secure Copy client
Release 0.68
Usage: pscp [options] [user@]host[:source target]
pscp [options] source [source...] [user@]host[:target]
pscp [options] -ls [user@]host[:file:spec]

Options:
-U          print version information and exit
-pppfp     print PGP key fingerprints and exit
-p         preserve file attributes
-q         quiet, don't show statistics
-r         copy directories recursively
-v         show verbose messages
-load sessname Load settings from saved session
-P port    connect to specified port
-l user    connect with specified username
-pw passw login with specified password
-I -2     force use of particular SSH protocol version
-A -6     force use of IPv4 or IPv6
-C         enable compression
-i key     private key file for authentication
-noagent   disable use of Pageant
-agent     enable use of Pageant
-batch    disable all interactive prompts
-unsafe   allow server-side wildcards (DANGEROUS)
-xfp     force use of XFP protocol
-xcp     force use of SCP protocol

```

c. Copiar o HOME de todos os usuarios.

Para copiar o HOME de todos os usuarios debemos empregar o comando pscp como segue:

**pscp -r -P 22 root@192.168.120.100:recuperar/home copia\_home**, onde:

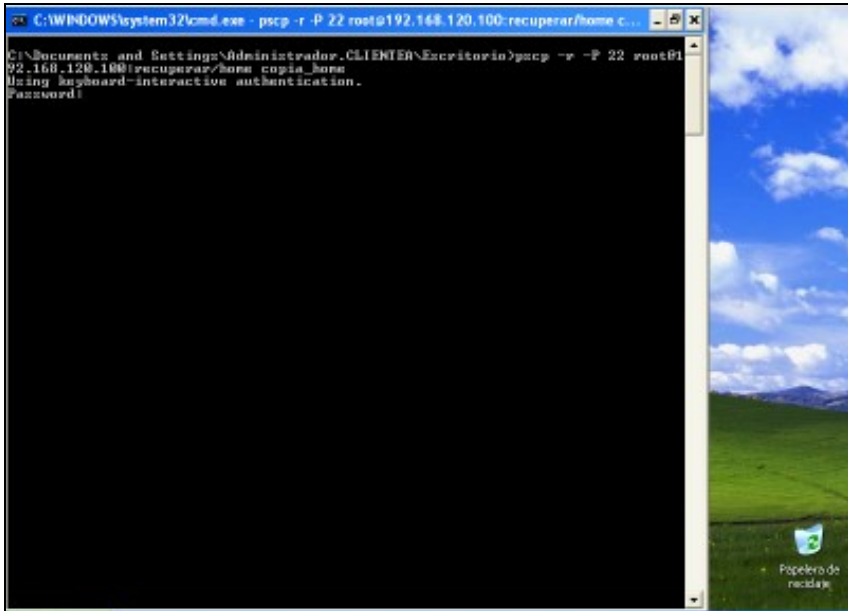
1. **-r** significa recursivo, serve para copiar cartafols enteiros.
2. **-P 22** indica o porto de conexión SSH
3. **root@192.168.120.100** indica o usuario root na máquina 192.168.120.100
4. **:recuperar/home** indica o cartafol a copiar na ruta parcial recuperar/home, que ven sendo a ruta absoluta /root/recuperar/home, xa que no caso de non indicar a ruta absoluta sempre se parte da ruta da casa do usuario, neste caso o usuario é root, co cal pártese de /root
5. **copia\_home** é o cartafol destino da copia.

```

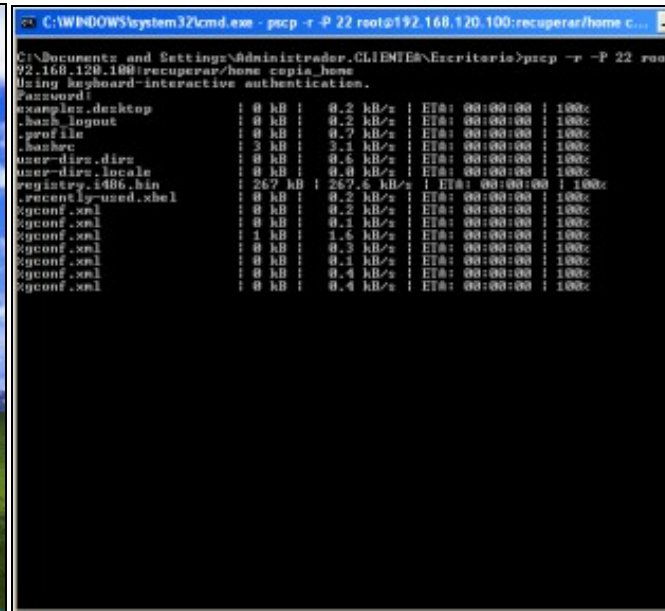
C:\WINDOWS\system32\cmd.exe - pscp -r -P 22 root@192.168.120.100:recuperar/home c...
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>pscp -r -P 22 root@192.168.120.100:recuperar/home copia_home
WARNING - POTENTIAL SECURITY BREACH!
The server's host key does not match the one PuTTY has
cached in the registry. This means that either the
server administrator has changed the host key, or you
have actually connected to another computer pretending
to be the server.
The new rsa2 key fingerprint is:
ssh-rsa 2048 11:d4:49:ec:72:45:e5:39:ef:3c:46:09:9e:ca:7c:16
If you were expecting this change and trust the new key,
enter "y" to update PuTTY's cache and continue connecting.
If you want to carry on connecting but without updating
the cache, enter "n".
If you want to abandon the connection completely, press
Return to cancel. Pressing Return is the ONLY guaranteed
safe choice.
Update cached key? <y/n, Return cancels connection> y_

```

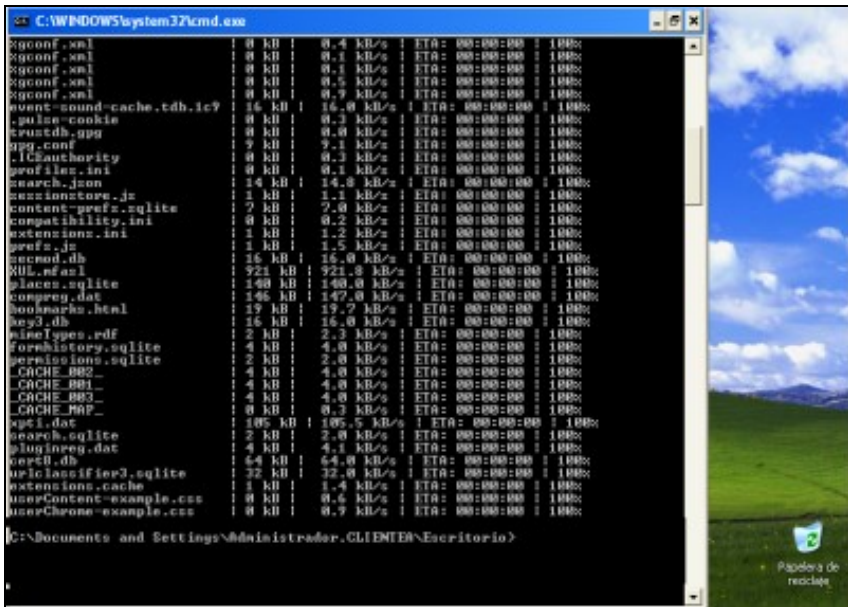
d. Autenticación. Se é a primeira vez que nos conectamos o servido estamos de acordo coa autenticación. Respostamos **y** e pulsamos **Enter** a primeira vez ver a seguinte imaxe.



e. Password da conexión do usuario root: toor. Pulsamos Enter



f. Copiando...



g. Copia feita

## 2.4 Transferir un ficheiro de forma segura

### 2.4.1 Cliente Distribución GNU/Linux: Empregando o comando sftp

Proceder:

```
Terminal
Archivo Editar Ver Terminal Ayuda
alumno@aulal1eq23:~$ sftp
usage: sftp [-lCv] [-B buffer_size] [-b batchfile] [-F ssh_config]
          [-o ssh_option] [-P sftp_server_path] [-R num_requests]
          [-S program] [-s subsystem | sftp_server] host
      sftp [[user@]host[:file [file]]]
      sftp [[user@]host[:dir[/]]]
      sftp -b batchfile [user@]host
alumno@aulal1eq23:~$
```

```
Terminal
Archivo Editar Ver Terminal Ayuda
alumno@aulal1eq23:~$ mkdir transferencia_dir
alumno@aulal1eq23:~$
```

a. Abrir un novo terminal para facer a transferencia de arquivos mediante sftp.

Executando o comando **sftp** podemos ver a sintaxe do mesmo.

b. Crear o directorio destino da transferencia: **transferencia\_dir**

```
Terminal
Archivo Editar Ver Terminal Ayuda
alumno@aulal1eq23:~$ mkdir transferencia_dir
alumno@aulal1eq23:~$ sftp root@192.168.120.100
```

```
Terminal
Archivo Editar Ver Terminal Ayuda
alumno@aulal1eq23:~$ mkdir transferencia_dir
alumno@aulal1eq23:~$ sftp root@192.168.120.100
Connecting to 192.168.120.100...
The authenticity of host '192.168.120.100 (192.168.120.100)' can't be
determined.
RSA key fingerprint is 11:d4:49:ec:72:45:e5:39:ef:3c:46:09:9e:ca:4d:4c:
Are you sure you want to continue connecting (yes/no)? yes
```

c. Transferir o arquivo **/etc/passwd**.

Para transferir o arquivo **/etc/passwd** ao cartafol **transferencia\_dir** debemos empregar o comando sftp como segue:

**sftp root@192.168.120.100**, onde **root@192.168.120.100** indica o usuario root na máquina 192.168.120.100

d. **Autenticación**. Se é a primeira vez que nos conectamos o servidoro estamos de acordo coa autenticación. Respostamos **yes** e pulsamos a primeira vez ver a seguinte imaxe.



```

Terminal
Archivo Editar Ver Terminal Ayuda
alumno@aula11eq23:~$ mkdir transferencia_dir
alumno@aula11eq23:~$ sftp root@192.168.120.100
Connecting to 192.168.120.100...
The authenticity of host '192.168.120.100 (192.168.120.100)' can't be established.
RSA key fingerprint is 11:d4:49:ec:72:45:e5:39:ef:3c:46:09:9e:ca:7c:76.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '192.168.120.100' (RSA) to the list of known hosts.
Password:
sftp>

```

e. Password da conexión do usuario root: toor. Pulsamos Enter

```

Terminal
Archivo Editar Ver Terminal Ayuda
Password:
sftp> help
Available commands:
cd path          Change remote directory to 'path'
lcd path         Change local directory to 'path'
chgrp grp path  Change group of file 'path' to 'grp'
chmod mode path Change permissions of file 'path'
chown own path  Change owner of file 'path' to 'own'
df [path]       Display statistics for current directory
                filesystem containing 'path'
help            Display this help text
get remote-path [local-path] Download file
lls [ls-options [path]]    Display local directory listing
ln oldpath newpath          Symlink remote file
lnmkdir path                Create local directory
lpwd                        Print local working directory
ls [path]                  Display remote directory listing
lumask umask               Set local umask to 'umask'
mkdir path                 Create remote directory
progress                   Toggle display of progress meter
put local-path [remote-path] Upload file
pwd                        Display remote working directory
exit                       Quit sftp
quit                       Quit sftp
rename oldpath newpath     Rename remote file
rmdir path                 Remove remote directory
rm path                    Delete remote file
symlink oldpath newpath    Symlink remote file
version                    Show SFTP version
!command                    Execute 'command' in local shell
!                             Escape to local shell
?                             Synonym for help
sftp>

```

f. **Xa estamos dentro do cliente sftp, como amosa o prompt sftp>**  
 Para ver os comandos deste cliente na transferencia de ficheiros execute o comando **help**.

```

Terminal
Archivo Editar Ver Terminal Ayuda
ls [path]          Display remote directory listing
lumask umask       Set local umask to 'umask'
mkdir path         Create remote directory
progress           Toggle display of progress meter
put local-path [remote-path] Upload file
pwd                Display remote working directory
exit              Quit sftp
quit              Quit sftp
rename oldpath newpath Rename remote file
rmdir path        Remove remote directory
rm path           Delete remote file
symlink oldpath newpath Symlink remote file
version           Show SFTP version
!command          Execute 'command' in local shell
!                 Escape to local shell
?                 Synonym for help
sftp> pwd
Remote working directory: /root
sftp> lpwd
Local working directory: /home/alumno
sftp>

```

g. Comandos pwd e lpwd.

1. **pwd**: Empregamos o comando **pwd** para saber en que cartafol remoto estamos situados, neste caso: **/root**
2. **lpwd**: Empregamos o comando **lpwd** para saber en que cartafol local estamos situados, neste caso **/home/alumno**.

```

Terminal
Archivo Editar Ver Terminal Ayuda
mkdir path          Create remote directory
progress            Toggle display of progress meter
put local-path [remote-path] Upload file
pwd                Display remote working directory
exit              Quit sftp
quit              Quit sftp
rename oldpath newpath Rename remote file
rmdir path        Remove remote directory
rm path           Delete remote file
symlink oldpath newpath Symlink remote file
version           Show SFTP version
!command          Execute 'command' in local shell
!                 Escape to local shell
?                 Synonym for help
sftp> pwd
Remote working directory: /root
sftp> lpwd
Local working directory: /home/alumno
sftp> cd recuperar/etc
sftp> lcd transferencia_dir
sftp>

```

h. Comandos cd e lcd.

1. **cd**: Empregamos o comando **cd** para movernos entre cartafol remoto, neste caso empregamos o comando **cd recuperar/etc** ao cartafol **/root/recuperar/etc** do equipo remoto.
2. **lcd**: Empregamos o comando **lcd** para movernos entre cartafol local, neste caso empregamos o comando **lcd transferencia\_dir** para movernos ao cartafol **/home/alumno/transferencia\_dir** do equipo local.

```
Terminal
Archivo Editar Ver Terminal Ayuda
sftp> get passwd
Fetching /root/recuperar/etc/passwd to passwd
/root/recuperar/etc/passwd          100% 1865    1.8KB/s   00:00
sftp>
```

```
Terminal
Archivo Editar Ver Terminal Ayuda
sftp> get passwd
Fetching /root/recuperar/etc/passwd to passwd
/root/recuperar/etc/passwd          100% 1865    1.8KB/s   00:00
sftp> quit
alumno@aula11eq23:~$
```

k. Transferimos o arquivo ao cartafol local, antes escollido, mediante o comando `get passwd`. Pulsar **Enter**. Transferencia realizada.

l. Executamos o comando `quit` para saír do cliente `sftp` e finalizamos a sesión.

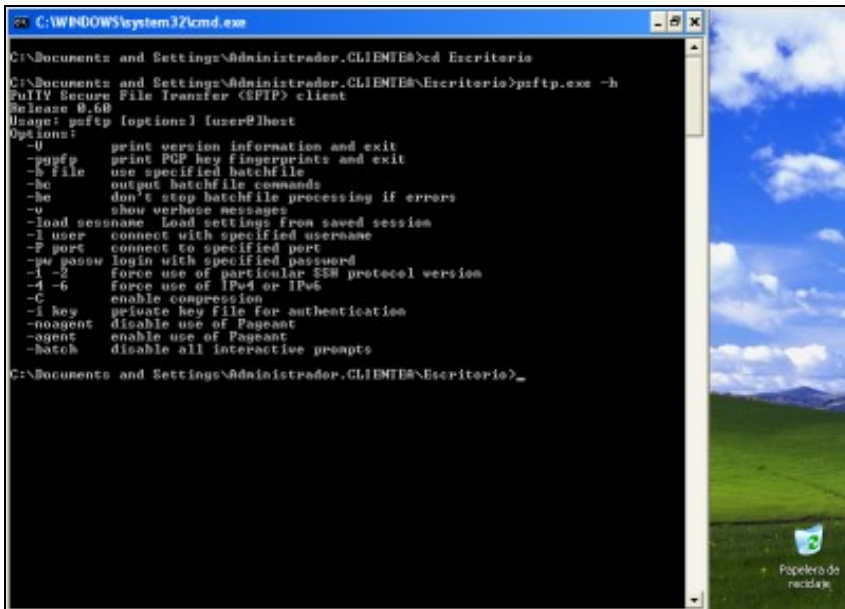
```
Terminal
Archivo Editar Ver Terminal Ayuda
sftp> get passwd
Fetching /root/recuperar/etc/passwd to passwd
/root/recuperar/etc/passwd          100% 1865    1.8KB/s   00:00
sftp> quit
alumno@aula11eq23:~$ ls transferencia_dir/
passwd
alumno@aula11eq23:~$
```

m. Na consola `cmd` executamos o comando `ls transferencia_dir` e podemos observar que o ficheiro foi transferido satisfactoriamente..

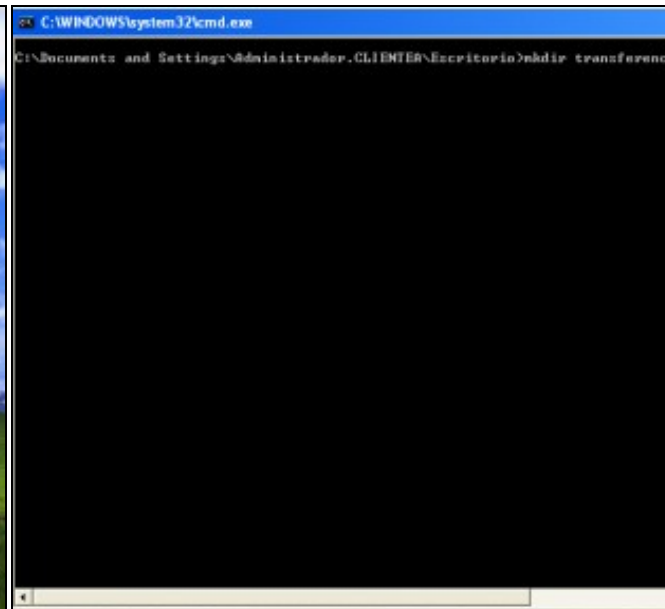
### 2.4.2 Cliente Windows: Empregando o comando `psftp`

**NOTA:** Para ver máis información sobre o comando `psftp` visitar a seguinte ligazón: [Comando psftp](#)

Proceder:



```
C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings\Administrador.CLIENTE>cd Escritorio
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>psftp.exe -h
PuTTY Secure File Transfer (SFTP) client
Release 0.68
Usage: psftp [options] [user@]host
Options:
  -V          print version information and exit
  -pufpf     print PGP key fingerprints and exit
  -b file     use specified batchfile
  -bc        output batchfile commands
  -be        don't stop batchfile processing if errors
  -v         show verbose messages
  -load username Load settings from saved session
  -l user     connect with specified username
  -P port     connect to specified port
  -pw password login with specified password
  -i -2      force use of particular SSH protocol version
  -i -6      force use of IPv4 or IPv6
  -C         enable compression
  -i key     specify key file for authentication
  -noagent   disable use of Pageant
  -agent     enable use of Pageant
  -batch     disable all interactive prompts
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>
```

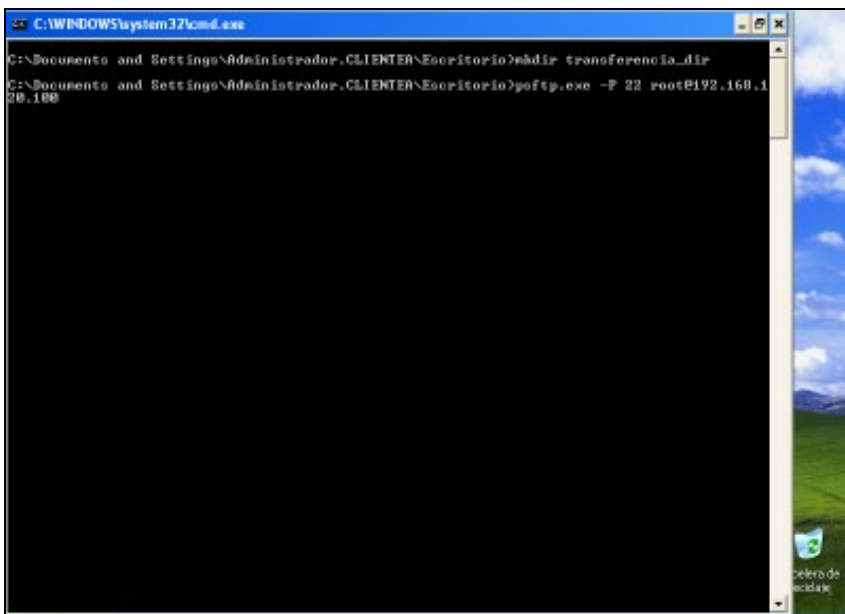


```
C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>mkdir transferencia_dir
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>
```

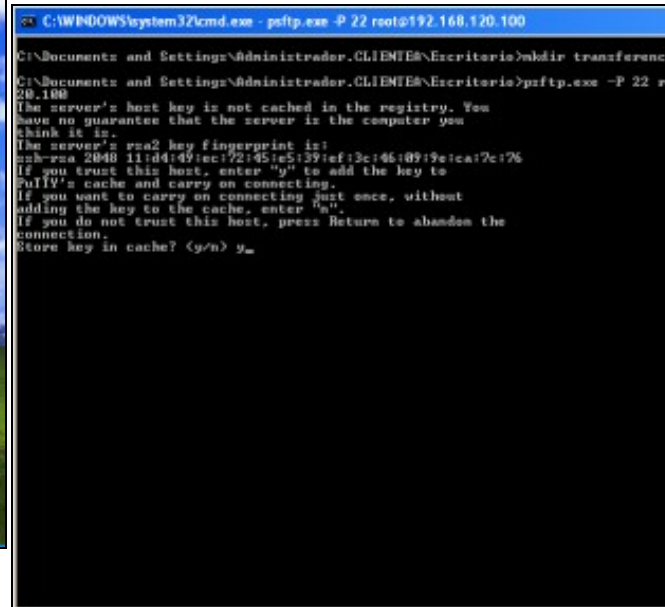
a. Abrir unha consola de comandos para facer a transferencia de arquivos mediante psftp.

Executando o comando **psftp -h** podemos ver a sintaxe do mesmo.

b. Crear o directorio destino da transferencia: **transferencia\_dir**



```
C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>mkdir transferencia_dir
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>psftp.exe -P 22 root@192.168.120.100
20.100
```



```
C:\WINDOWS\system32\cmd.exe - psftp.exe -P 22 root@192.168.120.100
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>mkdir transferencia_dir
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>psftp.exe -P 22 root@192.168.120.100
The server's host key is not cached in the registry. You have no guarantee that the server is the computer you think it is.
The server's rsa2 key fingerprint is:
ssh-rsa 2048 11:d4:49:ec:72:45:e5:39:ef:3c:46:09:9a:ca:7c:76
If you trust this host, enter 'y' to add the key to PuTTY's cache and carry on connecting.
If you want to carry on connecting just once, without adding the key to the cache, enter 'n'.
If you do not trust this host, press Return to abandon the connection.
Store key in cache? (y/n) y_
```

c. Transferir o arquivo **/etc/passwd**.

Para transferir o arquivo **/etc/passwd** ao cartafol **transferencia\_dir** debemos empregar o comando psftp como segue:

**psftp -P 22 root@192.168.120.100**, onde:

1. **-P 22** indica o porto de conexión SSH
2. **root@192.168.120.100** indica o usuario root na máquina 192.168.120.100

d. **Autenticación.** Se é a primeira vez que nos conectamos o servidor estamos de acordo coa autenticación. Respostamos **y** e pulsamos **Enter** a primeira vez ver a seguinte imaxe.

```

C:\WINDOWS\system32\cmd.exe - psftp.exe -P 22 root@192.168.120.100
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>mkdir transferencia_dir
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>psftp.exe -P 22 root@192.168.120.100
Using username "root".
Using keyboard-interactive authentication.
Password:
Remote working directory is /root
psftp>

```

e. Password da conexión do usuario root: toor. Pulsamos Enter

```

C:\WINDOWS\system32\cmd.exe - psftp.exe -P 22 root@192.168.120.100
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>mkdir transferencia_dir
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>psftp.exe -P 22 root@192.168.120.100
Using username "root".
Using keyboard-interactive authentication.
Password:
Remote working directory is /root
psftp> help
? run a local command
! finish your SFTP session
cd change your remote working directory
chmod change file permissions and modes
close finish your SFTP session but do not quit PSFTP
del delete files on the remote server
dir list remote files
exit finish your SFTP session
get download a file from the server to your local machine
help give help
lcd change local working directory
lpwd print local working directory
ls list remote files
mget download multiple files at once
mkdir create directories on the remote server
mput upload multiple files at once
mv move or rename file(s) on the remote server
open connect to a host
put upload a file from your local machine to the server
pwd print your remote working directory
quit finish your SFTP session
reget continue downloading files
rmv move or rename file(s) on the remote server
rput continue uploading files
rm delete files on the remote server
rmdir remove directories on the remote server
psftp>

```

f. Xa estamos dentro do cliente psftp, como amosa o prompt psftp. Para ver os comandos deste cliente na trasferencia de ficheiros executa o comando help.

```

C:\WINDOWS\system32\cmd.exe - psftp.exe -P 22 root@192.168.120.100
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>mkdir transferencia_dir
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>psftp.exe -P 22 root@192.168.120.100
Using username "root".
Using keyboard-interactive authentication.
Password:
Remote working directory is /root
psftp> help
? run a local command
! finish your SFTP session
cd change your remote working directory
chmod change file permissions and modes
close finish your SFTP session but do not quit PSFTP
del delete files on the remote server
dir list remote files
exit finish your SFTP session
get download a file from the server to your local machine
help give help
lcd change local working directory
lpwd print local working directory
ls list remote files
mget download multiple files at once
mkdir create directories on the remote server
mput upload multiple files at once
mv move or rename file(s) on the remote server
open connect to a host
put upload a file from your local machine to the server
pwd print your remote working directory
quit finish your SFTP session
reget continue downloading files
rmv move or rename file(s) on the remote server
rput continue uploading files
rm delete files on the remote server
rmdir remove directories on the remote server
psftp> pwd
Remote directory is /root
psftp> lpwd
Current local directory is C:\Documents and Settings\Administrador.CLIENTE\Escritorio
psftp>

```

g. Comandos pwd e lpwd.

1. **pwd**: Empregamos o comando **pwd** para saber en que cartafol remoto estamos situados, neste caso: **/root**
2. **lpwd**: Empregamos o comando **lpwd** para saber en que cartafol local estamos situados, neste caso **dentro do Escritorio**.

```

C:\WINDOWS\system32\cmd.exe - psftp.exe -P 22 root@192.168.120.100
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>mkdir transferencia_dir
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>psftp.exe -P 22 root@192.168.120.100
Using username "root".
Using keyboard-interactive authentication.
Password:
Remote working directory is /root
psftp> help
? run a local command
! finish your SFTP session
cd change your remote working directory
chmod change file permissions and modes
close finish your SFTP session but do not quit PSFTP
del delete files on the remote server
dir list remote files
exit finish your SFTP session
get download a file from the server to your local machine
help give help
lcd change local working directory
lpwd print local working directory
ls list remote files
mget download multiple files at once
mkdir create directories on the remote server
mput upload multiple files at once
mv move or rename file(s) on the remote server
open connect to a host
put upload a file from your local machine to the server
pwd print your remote working directory
quit finish your SFTP session
reget continue downloading files
rmv move or rename file(s) on the remote server
rput continue uploading files
rm delete files on the remote server
rmdir remove directories on the remote server
psftp> pwd
Remote directory is /root
psftp> lpwd
Current local directory is C:\Documents and Settings\Administrador.CLIENTE\Escritorio
psftp> cd recuperar/etc
Remote directory is now /root/recuperar/etc
psftp> lcd transferencia_dir
New local directory is C:\Documents and Settings\Administrador.CLIENTE\Escritorio\transferencia_dir
psftp>

```

h. Comandos cd e lcd.

1. **cd**: Empregamos o comando **cd** para movernos entre cartafol remoto, neste caso empregamos o comando **cd recuperar/etc** ao cartafol **/root/recuperar/etc** do equipo remoto.
2. **lcd**: Empregamos o comando **lcd** para movernos entre cartafol local, neste caso empregamos o comando **lcd transferencia\_dir** para movernos a ese cartafol dentro do equipo local.



```

C:\WINDOWS\system32\cmd.exe - psftp.exe -P 22 root@192.168.120.100
Rootword:
Remote working directory is /root
psftp> help
! run a local command
!q finish your SFTP session
cd change your remote working directory
chmod change file permissions and modes
close finish your SFTP session but do not quit PSFTP
del delete files on the remote server
dir list remote files
exit finish your SFTP session
get download a file from the server to your local machine
help give help
lcd change local working directory
lpwd print local working directory
ls list remote files
lsget download multiple files at once
mkdir create directories on the remote server
mget upload multiple files at once
mv move or rename file(s) on the remote server
open connect to a host
put upload a file from your local machine to the server
pwd print your remote working directory
quit finish your SFTP session
rget continue downloading files
rm move or rename file(s) on the remote server
rput continue uploading files
rm delete files on the remote server
rmdir remove directories on the remote server
psftp> pwd
Remote directory is /root
psftp> lpwd
Current local directory is C:\Documents and Settings\Administrador.CLIENTE\Escritorio
psftp> cd recuperar/etc
Remote directory is now /root/recuperar/etc
psftp> lcd transferencia_dir
New local directory is C:\Documents and Settings\Administrador.CLIENTE\Escritorio\transferencia_dir
psftp> help get
get [-r] [-] <filename> [ <local-filename> ]
Download a file on the server and store it locally under
the same name, or under a different one if you supply the
argument <local-filename>.
If -r specified, recursively fetch a directory.
psftp>

```

```

C:\WINDOWS\system32\cmd.exe - psftp.exe -P 22 root@192.168.120.100
psftp> help
! run a local command
!q finish your SFTP session
cd change your remote working directory
chmod change file permissions and modes
close finish your SFTP session but do not quit PSFTP
del delete files on the remote server
dir list remote files
exit finish your SFTP session
get download a file from the server to your local machine
help give help
lcd change local working directory
lpwd print local working directory
ls list remote files
lsget download multiple files at once
mkdir create directories on the remote server
mget upload multiple files at once
mv move or rename file(s) on the remote server
open connect to a host
put upload a file from your local machine to the server
pwd print your remote working directory
quit finish your SFTP session
rget continue downloading files
rm move or rename file(s) on the remote server
rput continue uploading files
rm delete files on the remote server
rmdir remove directories on the remote server
psftp> pwd
Remote directory is /root
psftp> lpwd
Current local directory is C:\Documents and Settings\Administrador.CLIENTE\Escritorio
psftp> cd recuperar/etc
Remote directory is now /root/recuperar/etc
psftp> lcd transferencia_dir
New local directory is C:\Documents and Settings\Administrador.CLIENTE\Escritorio\transferencia_dir
psftp> help get
get [-r] [-] <filename> [ <local-filename> ]
Download a file on the server and store it locally under
the same name, or under a different one if you supply the
argument <local-filename>.
If -r specified, recursively fetch a directory.
psftp> get passwd
remote:/root/recuperar/etc/passwd => local:passwd
psftp>

```

**i. Comando help get.**

Empregamos o comando **help get** para saber a sintaxe do comando **get**

**k. Transferimos o arquivo ao cartafol local, antes escollido, mediante o comando**

**get passwd.** Pulsar Enter. Transferencia realizada.

```

C:\WINDOWS\system32\cmd.exe
!q finish your SFTP session
cd change your remote working directory
chmod change file permissions and modes
close finish your SFTP session but do not quit PSFTP
del delete files on the remote server
dir list remote files
exit finish your SFTP session
get download a file from the server to your local machine
help give help
lcd change local working directory
lpwd print local working directory
ls list remote files
lsget download multiple files at once
mkdir create directories on the remote server
mget upload multiple files at once
mv move or rename file(s) on the remote server
open connect to a host
put upload a file from your local machine to the server
pwd print your remote working directory
quit finish your SFTP session
rget continue downloading files
rm move or rename file(s) on the remote server
rput continue uploading files
rm delete files on the remote server
rmdir remove directories on the remote server
psftp> pwd
Remote directory is /root
psftp> lpwd
Current local directory is C:\Documents and Settings\Administrador.CLIENTE\Escritorio
psftp> cd recuperar/etc
Remote directory is now /root/recuperar/etc
psftp> lcd transferencia_dir
New local directory is C:\Documents and Settings\Administrador.CLIENTE\Escritorio\transferencia_dir
psftp> help get
get [-r] [-] <filename> [ <local-filename> ]
Download a file on the server and store it locally under
the same name, or under a different one if you supply the
argument <local-filename>.
If -r specified, recursively fetch a directory.
psftp> get passwd
remote:/root/recuperar/etc/passwd => local:passwd
psftp> quit
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>

```

```

C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings\Administrador.CLIENTE\Escritorio>dir transferencia_dir
El volumen de la unidad C: se tiene etiquetado.
El número de serie del volumen es: C4B8-3127

Directorio de C:\Documents and Settings\Administrador.CLIENTE\Escritorio\transferencia_dir

29/04/2018 11:22 <DIR> ..
29/04/2018 11:22 <DIR> .
29/04/2018 11:22 1.865 passwd
1 archivos 1.865 bytes
2 dirs 3.876.864 bytes libres

C:\Documents and Settings\Administrador.CLIENTE\Escritorio>

```

**l. Executamos o comando quit para sair do cliente sftp e finaliza a conexión.**

**m. Na consola cmd executamos o comando dir transferencia\_dir para**

observar que o ficheiro foi transferido satisfactoriamente..