



Alumne (nom i cognoms):

Activitat 8. SCP

Documenteu amb captures de pantalla les comandes executades i les comprovacions realitzades.

Per realitzar aquesta pràctica és necessari un intercanvi de claus públiques entre els alumnes.

Creeu una estructura amb una carpeta `/home/usuari_local/teu_nom` i 2 fitxers:

- `teu_nom.txt`
- `teu_nom.pdf`

```
adgo@m7ubuserver:~/adrian$ ls
adrian.pdf  adrian.txt
adgo@m7ubuserver:~/adrian$ sudo chown adgo:adgo /home/adgo/adrian/
```

Amb un company de classe, realitzeu un exemple de còpia per a cada exercici.

1. Copiar un arxiu `.pdf` des de la carpeta de la màquina local a la carpeta de la màquina remota.

```
adgo@m7ubuserver:~/adrian$ scp /home/adgo/adrian/adrian.pdf polm@192.168.122.67:/home/polm/polmr/
adrian.pdf
adgo@m7ubuserver:~/adrian$
100% 0 0.0KB/s 00:00

adgo@m7ubuserver:~/adrian$ ls
adrian.pdf  adrian.txt  david.pdf  polmr.pdf
adgo@m7ubuserver:~/adrian$
```

2. Copiar un arxiu `.txt` des de la carpeta de la màquina remota a la carpeta de la màquina local.

```
adgo@m7ubuserver:~/adrian$ scp polm@192.168.122.67:/home/polm/polmr/polmr.txt /home/adgo/adrian
polmr.txt
adgo@m7ubuserver:~/adrian$
100% 0 0.0KB/s 00:00
```

3. Copiar la carpeta i tot el seu contingut des de la carpeta de la màquina local a la carpeta de la màquina remota.

```
adgo@m7ubuserver:~/adrian$ scp -r /home/adgo/adrian/ polm@192.168.122.67:/home/polm/polmr
david.pdf
adrian.txt
adrian.pdf
polmr.pdf
adgo@m7ubuserver:~/adrian$
100% 0 0.0KB/s 00:00
100% 0 0.0KB/s 00:00
100% 0 0.0KB/s 00:00
100% 0 0.0KB/s 00:00
```

4. Copiar la carpeta i tot el seu contingut des de la carpeta de la màquina remota a la carpeta de la màquina local.

```
adgo@m7ubuserver:~/adrian$ scp -r polm@192.168.122.67:/home/polm/polmr/ /home/adgo/adrian
david.txt 100% 0 0.0KB/s 00:00
david.pdf 100% 0 0.0KB/s 00:00
adrian.txt 100% 0 0.0KB/s 00:00
adrian.pdf 100% 0 0.0KB/s 00:00
polmr.txt 100% 0 0.0KB/s 00:00
david.txt 100% 0 0.0KB/s 00:00
david.pdf 100% 0 0.0KB/s 00:00
polmr.txt 100% 0 0.0KB/s 00:00
polmr.pdf 100% 0 0.0KB/s 00:00
david.pdf 100% 0 0.0KB/s 00:00
adrian.txt 100% 0 0.0KB/s 00:00
adrian.pdf 100% 0 0.0KB/s 00:00
polmr.pdf 100% 0 0.0KB/s 00:00
adgo@m7ubuserver:~/adrian$
```

5. Copiar la carpeta i tot el seu contingut des de la carpeta de la màquina local a la carpeta de la màquina remota, incrementant la velocitat.

```
adgo@m7ubuserver:~/adrian$ sudo scp -c aes256-ctr /home/adgo/adrian/* dapi@192.168.122.89:/home/dapi/david
The authenticity of host '192.168.122.89 (192.168.122.89)' can't be established.
ECDSA key fingerprint is SHA256:AFCybdRtNY5p9K8u4Hkzo0yZbYxs84N2msMESreocAY.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.122.89' (ECDSA) to the list of known hosts.
dapi@192.168.122.89's password:
adrian.pdf 100% 0 0.0KB/s 00:00
adrian.txt 100% 0 0.0KB/s 00:00
/home/adgo/adrian/david: not a regular file
david.pdf 100% 0 0.0KB/s 00:00
/home/adgo/adrian/polmr: not a regular file
polmr.pdf 100% 0 0.0KB/s 00:00
polmr.txt 100% 0 0.0KB/s 00:00
```

6. Copiar la carpeta i tot el seu contingut des de la carpeta de la màquina local a la carpeta de la màquina remota, limitant l'amplada de banda a 5MB.

```
adgo@m7ubuserver:~$ sudo scp -r -l40000 /home/adgo/adrian/* dapi@192.168.122.89:/home/dapi/david
dapi@192.168.122.89's password:
adrian.pdf 100% 0 0.0KB/s 00:00
adrian.txt 100% 0 0.0KB/s 00:00
david.txt 100% 0 0.0KB/s 00:00
david.pdf 100% 0 0.0KB/s 00:00
polmr.txt 100% 0 0.0KB/s 00:00
david.pdf 100% 0 0.0KB/s 00:00
david.txt 100% 0 0.0KB/s 00:00
david.txt 100% 0 0.0KB/s 00:00
david.pdf 100% 0 0.0KB/s 00:00
adrian.txt 100% 0 0.0KB/s 00:00
adrian.pdf 100% 0 0.0KB/s 00:00
polmr.txt 100% 0 0.0KB/s 00:00
david.txt 100% 0 0.0KB/s 00:00
david.pdf 100% 0 0.0KB/s 00:00
polmr.txt 100% 0 0.0KB/s 00:00
polmr.pdf 100% 0 0.0KB/s 00:00
david.pdf 100% 0 0.0KB/s 00:00
adrian.txt 100% 0 0.0KB/s 00:00
adrian.pdf 100% 0 0.0KB/s 00:00
polmr.pdf 100% 0 0.0KB/s 00:00
polmr.pdf 100% 0 0.0KB/s 00:00
polmr.txt 100% 0 0.0KB/s 00:00
```



7. Copiar la carpeta i tot el seu contingut des de la carpeta de la màquina local a la carpeta de la màquina remota, comprimint l'enviament.

```
adgo@n7ubuserver:~$ sudo scp -r -C /home/adgo/adrian/* dapi@192.168.122.89:/home/dapi/david
dapi@192.168.122.89's password:
david.txt                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
adrian.txt                               100% 0    0.0KB/s  00:00
adrian.pdf                               100% 0    0.0KB/s  00:00
polmr.txt                                100% 0    0.0KB/s  00:00
david.txt                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
polmr.txt                                100% 0    0.0KB/s  00:00
polmr.pdf                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
adrian.txt                               100% 0    0.0KB/s  00:00
adrian.pdf                               100% 0    0.0KB/s  00:00
polmr.pdf                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
adrian.txt                               100% 0    0.0KB/s  00:00
adrian.pdf                               100% 0    0.0KB/s  00:00
polmr.txt                                100% 0    0.0KB/s  00:00
david.txt                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
polmr.txt                                100% 0    0.0KB/s  00:00
polmr.pdf                                100% 0    0.0KB/s  00:00
adrian.pdf                               100% 0    0.0KB/s  00:00
adrian.txt                               100% 0    0.0KB/s  00:00
david.txt                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
polmr.txt                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
david.txt                                100% 0    0.0KB/s  00:00
david.txt                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
adrian.txt                               100% 0    0.0KB/s  00:00
adrian.pdf                               100% 0    0.0KB/s  00:00
polmr.txt                                100% 0    0.0KB/s  00:00
david.txt                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
polmr.txt                                100% 0    0.0KB/s  00:00
polmr.pdf                                100% 0    0.0KB/s  00:00
david.txt                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
adrian.txt                               100% 0    0.0KB/s  00:00
adrian.pdf                               100% 0    0.0KB/s  00:00
polmr.txt                                100% 0    0.0KB/s  00:00
david.txt                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
polmr.txt                                100% 0    0.0KB/s  00:00
polmr.pdf                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
adrian.txt                               100% 0    0.0KB/s  00:00
adrian.pdf                               100% 0    0.0KB/s  00:00
polmr.pdf                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
adrian.txt                               100% 0    0.0KB/s  00:00
adrian.pdf                               100% 0    0.0KB/s  00:00
david.txt                                100% 0    0.0KB/s  00:00
david.pdf                                100% 0    0.0KB/s  00:00
polmr.txt                                100% 0    0.0KB/s  00:00
polmr.pdf                                100% 0    0.0KB/s  00:00
polmr.pdf                                100% 0    0.0KB/s  00:00
polmr.txt                                100% 0    0.0KB/s  00:00
adgo@n7ubuserver:~$
```



8. Copiar la carpeta i tot el seu contingut des de la carpeta de la màquina local a la carpeta de la màquina remota, mostrant els detalls de l'enviament.

```
adgo@m7ubuserver:~$ sudo scp -r -v /home/adgo/adrian/* dapi@192.168.122.89:/home/dapi/david
Executing: program /usr/bin/ssh host 192.168.122.89, user dapi, command scp -v -r -d -t /home/dapi/david
OpenSSH_8.2p1 Ubuntu-4ubuntu0.2, OpenSSL 1.1.1f 31 Mar 2020
debug1: Reading configuration data /etc/ssh/ssh_config
debug1: /etc/ssh/ssh_config line 19: include /etc/ssh/ssh_config.d/*.conf matched no files
debug1: /etc/ssh/ssh_config line 21: Applying options for *
debug1: Connecting to 192.168.122.89 [192.168.122.89] port 22.
debug1: Connection established.
debug1: identity file /root/.ssh/id_rsa type -1
debug1: identity file /root/.ssh/id_rsa-cert type -1
debug1: identity file /root/.ssh/id_dsa type -1
debug1: identity file /root/.ssh/id_dsa-cert type -1
debug1: identity file /root/.ssh/id_ecdsa type -1
debug1: identity file /root/.ssh/id_ecdsa-cert type -1
debug1: identity file /root/.ssh/id_ecdsa_sk type -1
debug1: identity file /root/.ssh/id_ecdsa_sk-cert type -1
debug1: identity file /root/.ssh/id_ed25519 type -1
debug1: identity file /root/.ssh/id_ed25519-cert type -1
debug1: identity file /root/.ssh/id_ed25519_sk type -1
debug1: identity file /root/.ssh/id_ed25519_sk-cert type -1
debug1: identity file /root/.ssh/id_xmss type -1
debug1: identity file /root/.ssh/id_xmss-cert type -1
debug1: Local version string SSH-2.0-OpenSSH_8.2p1 Ubuntu-4ubuntu0.2
debug1: Remote protocol version 2.0, remote software version OpenSSH_8.2p1 Ubuntu-4ubuntu0.2
debug1: match: OpenSSH_8.2p1 Ubuntu-4ubuntu0.2 pat OpenSSH* compat 0x04000000
debug1: Authenticating to 192.168.122.89:22 as 'dapi'
debug1: SSH2_MSG_KEXINIT sent
debug1: SSH2_MSG_KEXINIT received
debug1: kex: algorithm: curve25519-sha256
debug1: kex: host key algorithm: ecdsa-sha2-nistp256
debug1: kex: server->client cipher: chacha20-poly1305@openssh.com MAC: <implicit> compression: none
debug1: kex: client->server cipher: chacha20-poly1305@openssh.com MAC: <implicit> compression: none
debug1: expecting SSH2_MSG_KEX_ECDH_REPLY
debug1: Server host key: ecdsa-sha2-nistp256 SHA256:AFCybdRtNY5p9K8u4Hkzo0yZbYxs84N2msMESreocAY
Entering directory: D0755 0 adrian
Entering directory: D0775 0 polmr
Sink: D0755 0 adrian
Sending file modes: C0664 0 david.txt
Sink: D0775 0 polmr
david.txt
100% 0 0.0KB/s 00:00 S
Link: C0664 0 david.txt

Sending file modes: C0664 0 david.pdf
david.pdf
100% 0 0.0KB/s 00:00 S
Link: C0664 0 david.pdf

Sending file modes: C0644 0 adrian.txt
adrian.txt
100% 0 0.0KB/s 00:00 S
Link: C0644 0 adrian.txt

Sending file modes: C0644 0 adrian.pdf
adrian.pdf
100% 0 0.0KB/s 00:00 S
Link: C0644 0 adrian.pdf

Sending file modes: C0644 0 polmr.txt
polmr.txt
100% 0 0.0KB/s 00:00 S
Link: C0644 0 polmr.txt

Entering directory: D0775 0 david
Sending file modes: C0664 0 david.txt
Sink: D0775 0 david
david.txt
100% 0 0.0KB/s 00:00 S
Link: C0664 0 david.txt

Sink: E
Sending file modes: C0644 0 polmr.pdf
Sink: E
polmr.pdf
100% 0 0.0KB/s 00:00 Sink: C0644 0 polmr.pdf

Sending file modes: C0644 0 polmr.txt
polmr.txt
100% 0 0.0KB/s 00:00 Sink: C0644 0 polmr.txt

debug1: client_input_channel_req: channel 0 rtype exit-status reply 0
debug1: channel 0: free: client-session, nchannels 1
debug1: fd 0 clearing O_NONBLOCK
Transferred: sent 6152, received 9388 bytes, in 0.4 seconds
Bytes per second: sent 15597.9, received 23802.5
debug1: Exit status 0
adgo@m7ubuserver:~$
```



9. Copiar la carpeta i tot el seu contingut des de la carpeta de la màquina remota a una altra carpeta de la màquina remota.

```
adgo@m7ubuserver:~$ sudo touch restore  
adgo@m7ubuserver:~$ sudo chown adgo:adgo restore
```

```
adgo@m7ubuserver:~$ scp -3 -r dapi@192.168.122.89:/home/dapi/david/ dapi@192.168.122.89:/home/dapi/restore  
adgo@m7ubuserver:~$
```

Amb un tercer company de classe:

10. Copiar la carpeta i tot el seu contingut des de la carpeta de la màquina remota 1 a la carpeta de la màquina remota 2.