

# SSH avec échangees de clés

Nous allons crée un serveur Linux puis nous allons config l'ip

pour le SRV-home 192.168.56.101

pour le SRV-backup 192.168.56.102

SRV-Backup :

```
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
allow-hotplug enp0s3
iface enp0s3 inet static

address 192.168.56.101/24
gateway 192.168.56.254
```

Puis nous allons installer openssh-server

```
root@srv-home:~# apt install openssh-server
```

Objectifs : Accéder a srv-home depuis srv-backup

On se connecte au serveur de Backup ( serveur linux vierge sans rien )

on écrit

ssh-keygen

```
sio@srv-backup:~$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/sio/.ssh/id_rsa):
Created directory '/home/sio/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/sio/.ssh/id_rsa.
Your public key has been saved in /home/sio/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:tkvZF5ew7WljtY4WdEqkXUB4o72o/auCvAfZ/wd80jg sio@srv-backup
The key's randomart image is:
+---[RSA 2048]---+
|                oo. |
|               . +. |
|              0 o  |
|             o O o  |
|            S  B B . |
|           + = . X +. |
|          . * = o @. |
|         + = E *OO  |
|        .+ ..*=+.  |
+-----[SHA256]-----+
sio@srv-backup:~$ _
```

On fais la commande ci dessous afin de voir la clé ssh

```
ssh-keygen -lf .ssh/id_rsa
```

Maintenant on va la copier

ssh

```
ssh-copy-id -i sio@192.168.56.101
```

puis

```
ssh sio@192.168.56.101
```

```
ssh sio@192.168.56.101
```

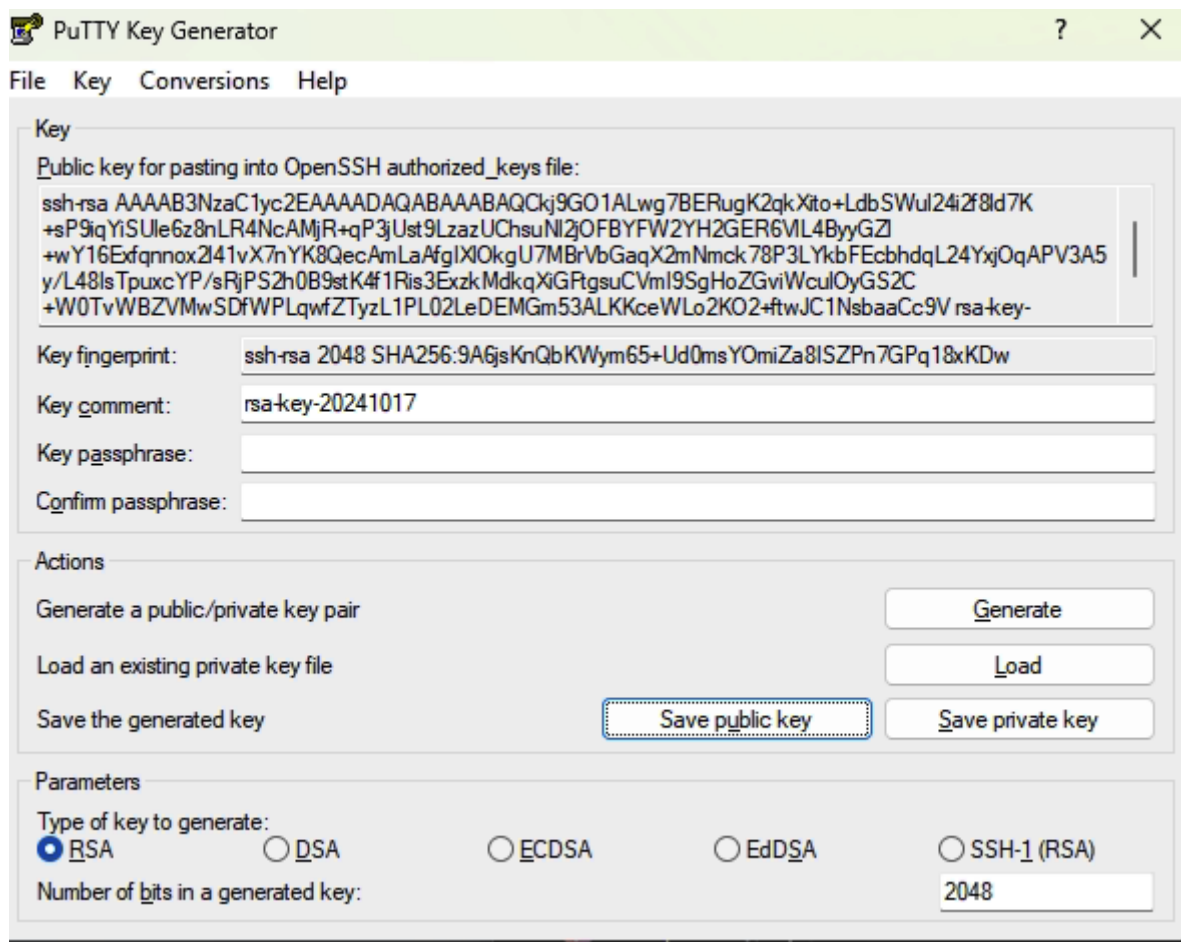
et nous pouvons voir que nous sommes connecté au srv-home a l'aide du srv backup

```
sio@srv-backup:~$ ssh sio@192.168.56.101
Linux srv-home 4.19.0-27-amd64 #1 SMP Debian 4.19.316-1 (2024-06-25) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Tue Jan  7 14:13:42 2020
sio@srv-home:~$ _
```

On va généré une clé public a l'aide de Putty Key Generator



PuTTY Key Generator

File Key Conversions Help

Key

Public key for pasting into OpenSSH authorized\_keys file:

```
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQCKj9GO1ALwg7BERugK2qkXito+LdbSWul24i2f8ld7K
+sP9iqYiSUle6z8nLR4NcAMjR+qP3jUst9LzazUChsuNI2jOFBYFW2YH2GER6VL4ByyGZI
+wY16ExfqnnoxZl41vX7nYK8QecAmLaAfglXlOkG U7MBrVbGaqX2mNmck78P3LYkbFEcbhdqL24YxjOqAPV3A5
y/L48lsTpuxcYP/sRjPS2h0B9stK4f1Ris3ExzkMdkqXiGfTgsuCVmI9SgHoZGviWculOyGS2C
+W0TvWBZVMwSDfWPLqwfZTyzL1PL02LeDEMgm53ALKKceWLo2KO2+ftwJC1NsbaaCc9V rsa-key-
```

Key fingerprint: ssh-rsa 2048 SHA256:9A6jsKnQbKWym65+Ud0msYOmiZa8ISZPn7GPq18xKDw

Key comment: rsa-key-20241017

Key passphrase:

Confirm passphrase:

Actions

Generate a public/private key pair Generate

Load an existing private key file Load

Save the generated key Save public key Save private key

Parameters

Type of key to generate:

☒ RSA ☐ DSA ☐ ECDSA ☐ EdDSA ☐ SSH-1 (RSA)

Number of bits in a generated key: 2048

On se connecte sur SRV-home est on genere une paire de clé

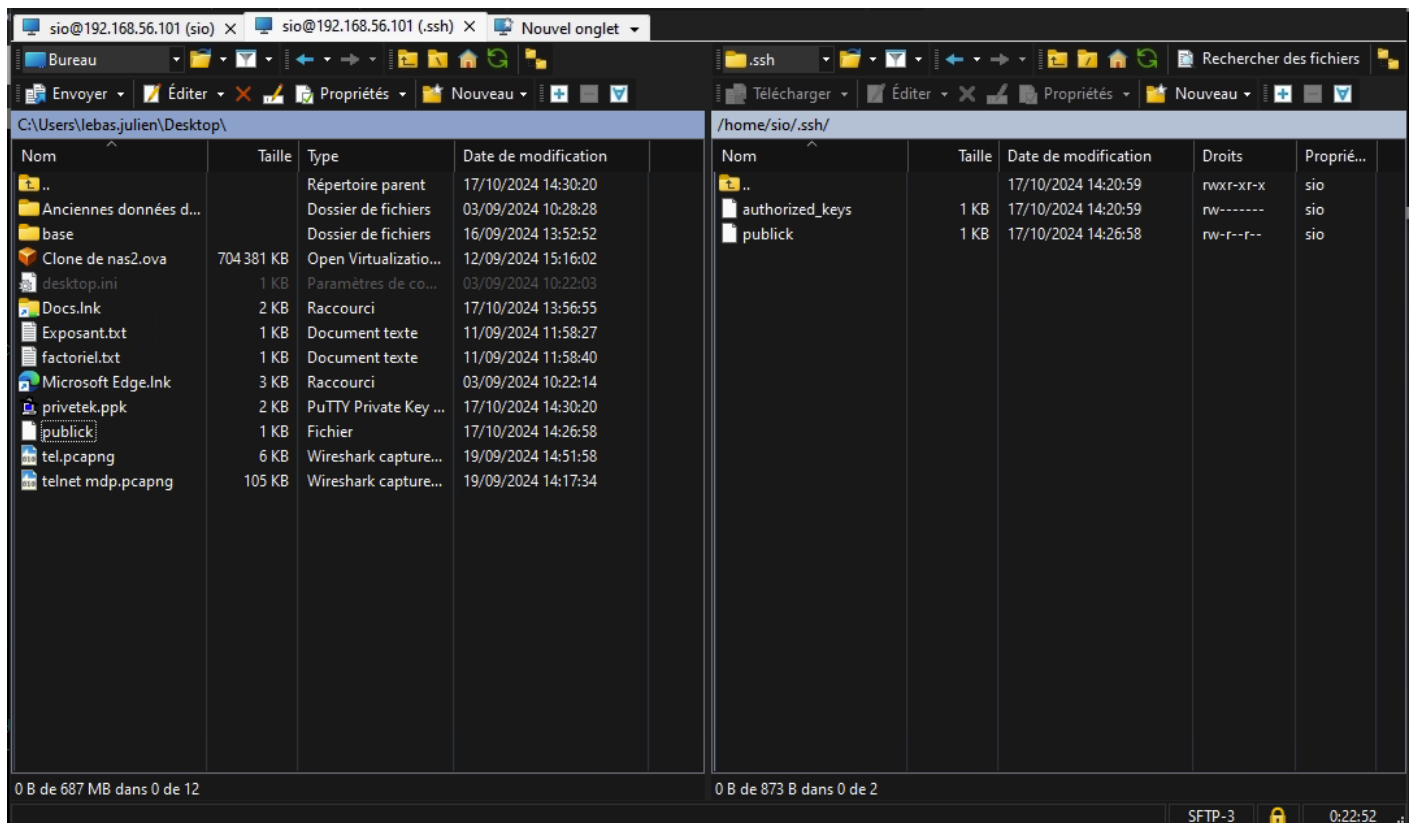
ssh

```
ssh-keygen
```

On install vsftpd

```
apt install vsftpd
```

On se connecte avec WinSCP puis on transfere la clés public qu'on a crée sur le .ssh de l'utilisateur



## Modification du fichier de configuration de vsftpd :

- Sur le serveur **srv-home**, éditez le fichier de configuration avec :

```
# Example config file /etc/vsftpd.conf
#
# The default compiled in settings are fairly paranoid. This sample file
# loosens things up a bit, to make the ftp daemon more usable.
# Please see vsftpd.conf.5 for all compiled in defaults.
#
# READ THIS: This example file is NOT an exhaustive list of vsftpd options.
# Please read the vsftpd.conf.5 manual page to get a full idea of vsftpd's
# capabilities.
#
#
# Run standalone? vsftpd can run either from an inetd or as a standalone
# daemon started from an initscript.
listen=NO
#
# This directive enables listening on IPv6 sockets. By default, listening
# on the IPv6 "any" address (:::) will accept connections from both IPv6
# and IPv4 clients. It is not necessary to listen on *both* IPv4 and IPv6
# sockets. If you want that (perhaps because you want to listen on specific
# addresses) then you must run two copies of vsftpd with two configuration
# files.
listen_ipv6=YES
#
# Allow anonymous FTP? (Disabled by default).
anonymous_enable=NO
#
# Uncomment this to allow local users to log in.
local_enable=YES
write_enable=YES
#
```

### Ajout de la clé publique pour une authentification sans mot de passe :

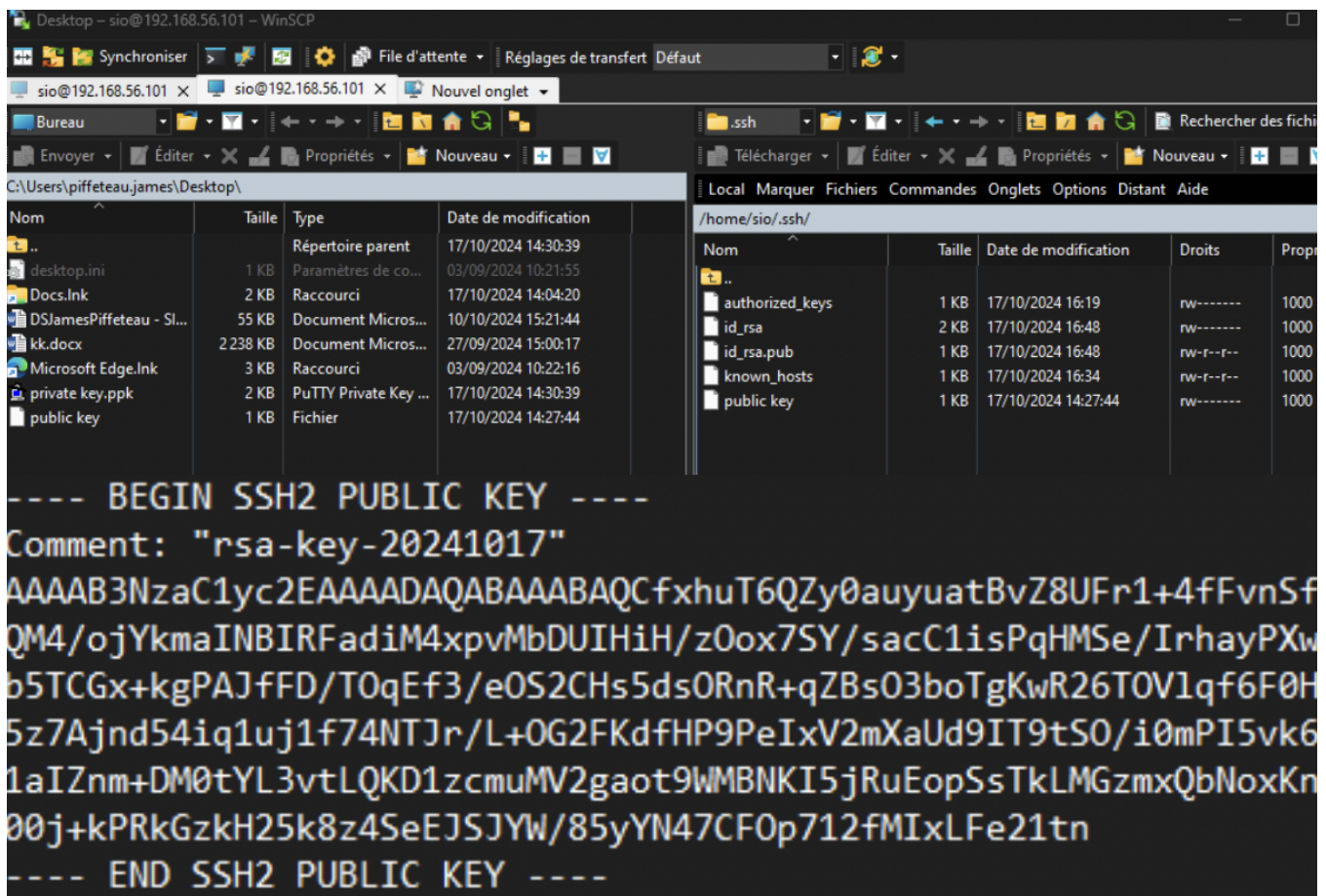
1. **Vérifiez que la clé publique est copiée** dans le répertoire `/home/sio/.ssh/` de **srv-home**.
2. **Ajoutez la clé au fichier** `authorized_keys` :

```
cat /home/sio/.ssh/id_rsa.pub >> /home/sio/.ssh/authorized_keys
```

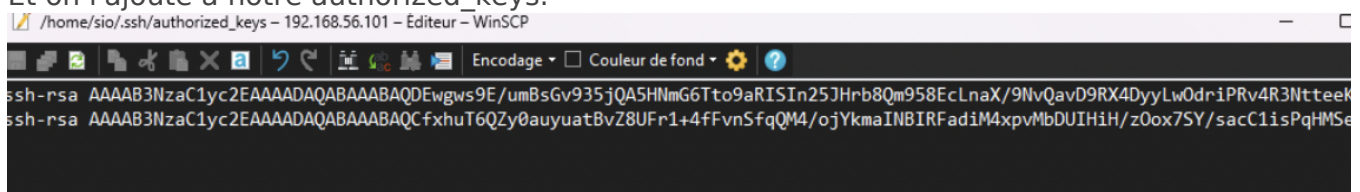
3. **Vérifiez les permissions :**

Assurez-vous que le fichier et le dossier ont les bonnes permissions :

```
chmod 600 /home/sio/.ssh/authorized_keys
chmod 700 /home/sio/.ssh
```



Et on l'ajoute a notre authorized\_keys.



Révision #3

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