

SSH tunneling and SCP between servers

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1. System

- I use Debian, version 8.7 ([why?](#))
- Vi is used as a text editor in the following

2. Why SSH?

- SSH allows 2 computers to connect to each other , even with a firewall on each computer (how?).
- The data transitting between the 2 servers is not encrypted, but it is tunnelled in a way that protects it from preying eyes (how?)
- For this reason, SSH tunneling is a nice way to have a couple or even more computers to discuss with each other: to go from a single server to a cluster!
- My use case: a prod server that does the heavy lifting, a small server which receives the API requests from the public and polls the prod server for answers.

Difficulty: SSH is pretty hard to setup for beginners.

3. Setup

Prod server: A.A.A

API server: B.B.B

I want the db in A.A.A to be tunneled to B.B.B. The API server on B.B.B. can query the db as if it was in localhost.

From B.B.B. :

- creating a pair of keys:

source: <https://www.digitalocean.com/community/tutorials/how-to-set-up-ssh-keys—​2>

```
ssh-keygen -t rsa
```

This generates a private key `id_rsa` and a public key `id_rsa.pub`, both of them in the folder `/home/user/.ssh/`

On A.A.A.:

- copying the `id_rsa.pub` made on B.B.B and pasting it as a new line in `authorized_keys` in A.A.A.

- restart sshd with: service sshd restart

From B.B.B.:

```
ssh -Nf -L 9200:localhost:9200 myuser@A.A.A -p 22
```

(9200 is because I want to tunnel Elasticsearch)

(actually replace 22 by the port you configured in sshd_config in A.A.A)

(the Nf option puts the SSH connection in the background. Indeed, we don't care about it - we don't want an interactive session in a console. Just the port 9200 to be tunneled.)

(see <http://stackoverflow.com/questions/25048045/elasticsearch-remote-access-through-ssh>)

Closing an SSH tunnel:

<http://stackoverflow.com/questions/9447226/how-to-close-this-ssh-tunnel>

4. SCP

here: make sure you have access to the file you want to move, both in origin and dest folders!

```
scp -P 1234 /var/redis/6379/dump.rdb username@destinationhost:/home/username
```

To copy a full directory:

```
scp -r -P 1234 /var/folder username@destinationhost:/home/username/folder
```

The end



Tutorial by Clement Levallois.

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