

1) Instalar o Openssh server em uma máquina virtual Linux;

Instalação do Open Server SSH

```
administrador@joaovictor-server: ~  
administrador@joaovictor-server:~$ sudo apt install openssh-server  
[sudo] senha para administrador:  
Lendo listas de pacotes... Pronto  
Construindo árvore de dependências  
Lendo informação de estado... Pronto  
O seguinte pacote foi instalado automaticamente e já não é necessário:  
  libfwupdplugin1  
Utilize 'sudo apt autoremove' para o remover.  
Os pacotes adicionais seguintes serão instalados:  
  ncurses-term openssh-sftp-server ssh-import-id  
Pacotes sugeridos:  
  molly-guard monkeysphere  
Os NOVOS pacotes a seguir serão instalados:  
  ncurses-term openssh-server openssh-sftp-server ssh-import-id  
0 pacotes atualizados, 4 pacotes novos instalados, 0 a serem removidos e 0 não atualizados.  
É preciso baixar 688 kB de arquivos.  
Depois desta operação, 6.010 kB adicionais de espaço em disco serão usados.  
Você quer continuar? [S/n] S  
Obter:1 http://archive.ubuntu.com/ubuntu focal/main amd64 ncurses-term all 6.2-0ubuntu2 [249 kB]  
Obter:2 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 openssh-sftp-server amd64 1:8.2p1-4ubuntu0.4 [51,5 kB]  
Obter:3 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 openssh-server amd64 1:8.2p1-4ubuntu0.4 [377 kB]  
Obter:4 http://archive.ubuntu.com/ubuntu focal/main amd64 ssh-import-id all 5.10-0ubuntu1 [10,0 kB]  
Baixados 688 kB em 1s (549 kB/s)  
Pré-configurando pacotes ...
```

Iniciando o Open Server SSH

```
administrador@joaovictor-server: ~  
administrador@joaovictor-server:~$ sudo systemctl start ssh.service  
[sudo] senha para administrador:  
administrador@joaovictor-server:~$ sudo systemctl status ssh.service  
● ssh.service - OpenBSD Secure Shell server  
   Loaded: loaded (/lib/systemd/systemd/ssh.service; enabled; vendor preset: enabled)  
   Active: active (running) since Wed 2022-05-11 18:55:24 -03; 4min 15s ago  
     Docs: man:sshd(8)  
           man:sshd_config(5)  
  Main PID: 43033 (sshd)  
    Tasks: 1 (limit: 2242)  
   Memory: 1.0M  
    CGroup: /system.slice/ssh.service  
            └─43033 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups  
  
mai 11 18:55:24 joaovictor-server systemd[1]: Starting OpenBSD Secure Shell server...  
mai 11 18:55:24 joaovictor-server sshd[43033]: Server listening on 0.0.0.0 port 22.  
mai 11 18:55:24 joaovictor-server sshd[43033]: Server listening on :: port 22.  
mai 11 18:55:24 joaovictor-server systemd[1]: Started OpenBSD Secure Shell server.  
administrador@joaovictor-server:~$ sudo systemctl enable ssh.service  
Synchronizing state of ssh.service with SysV service script with /lib/systemd/systemd-sysv-install.  
Executing: /lib/systemd/systemd-sysv-install enable ssh  
administrador@joaovictor-server:~$ sudo systemctl is-enable ssh.service  
Unknown operation is-enable.
```

Verificando se o Open Server SSH está instalado

```
administrador@joaovictor-server:~$ sudo dpkg -l | less | grep ssh  
ii  libssh-4:amd64                0.9.3-2ubuntu2.2          amd64  
ii  libssh-gcrypt-4:amd64        0.9.3-2ubuntu2.2          amd64  
ii  libssh2-1:amd64              1.8.0-2.1build1           amd64  
ii  lxqt-openssh-askpass          0.14.1-1ubuntu1           amd64  
ii  lxqt-openssh-askpass-l10n     0.14.1-1ubuntu1           all  
ii  openssh-client                1:8.2p1-4ubuntu0.4        amd64  
ii  openssh-server                1:8.2p1-4ubuntu0.4        amd64  
ii  openssh-sftp-server           1:8.2p1-4ubuntu0.4        amd64  
ii  ssh-import-id                 5.10-0ubuntu1             all  
administrador@joaovictor-server:~$
```

2) Criar um par de chaves (Publica/Privada);

```
administrador@joaovictor-server:~$ ssh-keygen -b 2048
Generating public/private rsa key pair.

Enter file in which to save the key (/home/administrador/.ssh/id_rsa): /home/administrador/.ssh/id_rsa
Overwrite (y/n)? y
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/administrador/.ssh/id_rsa
Your public key has been saved in /home/administrador/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:AmC4o1vjH0cbHInF0FHCJema+PLZRr/+giGLB6ckAYc administrador@joaovictor-server
The key's randomart image is:
+---[RSA 2048]----+
| oo .==o         |
|E... o=+         |
|.o  o.o          |
|+   o..          |
|.o . o= S        |
|o * =.o+         |
|* B.+o+          |
|. = +=o o        |
|  =+...o+.       |
+---[SHA256]-----+
```

3) Copiar a chave pública em uma máquina virtual que está executando o Open-SSH Server;

A atividade foi feita com duas máquinas virtuais diferentes, com IPs diferentes, mas no mesmo PC, com Windows

administrador@joaovictor-server – Máquina virtual principal que fará a conexão
IP de administrador@joaovictor-server – 10.0.0.106

```
administrador@joaovictor-server: ~
administrador@joaovictor-server:~$ ifconfig
docker0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    inet 172.17.0.1 netmask 255.255.0.0 broadcast 172.17.255.255
    ether 02:42:4a:12:14:c0 txqueuelen 0 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.0.106 netmask 255.255.255.0 broadcast 10.0.0.255
    inet6 fe80::cfc5:6d83:5ce6:3f73 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:37:e8:94 txqueuelen 1000 (Ethernet)
    RX packets 131019 bytes 182145378 (182.1 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 21942 bytes 1852385 (1.8 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

administrador@teste-server – Máquina virtual secundária que será acessada
IP de administrador@teste-server – 10.0.0.107

```
administrador@teste-server: ~  
ur Internet connection or proxy settings  
  
Your Hardware Enablement Stack (HWE) is supported until April 2025.  
administrador@teste-server:~$ ifconfig  
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500  
    inet 10.0.0.107 netmask 255.255.255.0 broadcast 10.0.0.255  
    inet6 fe80::e586:230:e488:a414 prefixlen 64 scopeid 0x20<link>  
    ether 08:00:27:51:be:ea txqueuelen 1000 (Ethernet)  
    RX packets 3323 bytes 280369 (280.3 KB)  
    RX errors 0 dropped 0 overruns 0 frame 0  
    TX packets 7406 bytes 499218 (499.2 KB)  
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0  
  
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536  
    inet 127.0.0.1 netmask 255.0.0.0  
    inet6 ::1 prefixlen 128 scopeid 0x10<host>  
    loop txqueuelen 1000 (Loopback Local)  
    RX packets 13523 bytes 1124347 (1.1 MB)  
    RX errors 0 dropped 0 overruns 0 frame 0  
    TX packets 13523 bytes 1124347 (1.1 MB)  
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

Copiando a chave pública para teste-server (10.0.0.107)

```
administrador@joaovictor-server:~$ ssh-copy-id administrador@10.0.0.107  
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/administ  
rador/.ssh/id_rsa.pub"  
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filt  
er out any that are already installed  
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are pro  
mpted now it is to install the new keys  
administrador@10.0.0.107's password:  
  
Number of key(s) added: 1  
  
Now try logging into the machine, with:  "ssh 'administrador@10.0.0.107'"  
and check to make sure that only the key(s) you wanted were added.  
  
administrador@joaovictor-server:~$ █
```

Acessando teste-server (10.0.0.107)

```
administrador@joaovictor-server:~$ ssh administrador@10.0.0.107
Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.13.0-44-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

0 updates can be applied immediately.

The list of available updates is more than a week old.
To check for new updates run: sudo apt update
Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check yo
ur Internet connection or proxy settings

Your Hardware Enablement Stack (HWE) is supported until April 2025.
administrador@teste-server:~$
```