



INSTITUTO FEDERAL

Ceará

Campus Fortaleza

Telemática

Administração de Serviços de Rede

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Atividade 02 | SSH

1. Instalação do SSH:

```
victor@DESKTOP-6NQEOMH:~$ sudo apt install openssh-server
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libwrap0 ncurses-term openssh-sftp-server ssh-import-id
Suggested packages:
  molly-guard monkeysphere ssh-askpass ufw
The following NEW packages will be installed:
  libwrap0 ncurses-term openssh-server openssh-sftp-server ssh-import-id
0 upgraded, 5 newly installed, 0 to remove and 47 not upgraded.
Need to get 879 kB of archives.
After this operation, 6857 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 openssh-sftp-server amd64 1:9.6p1-3ubuntu13.5 [37.3 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libwrap0 amd64 7.6.q-33 [47.9 kB]
Get:3 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 openssh-server amd64 1:9.6p1-3ubuntu13.5 [509 kB]
Get:4 http://archive.ubuntu.com/ubuntu noble/main amd64 ncurses-term all 6.4+20240113-1ubuntu2 [275 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble/main amd64 ssh-import-id all 5.11-0ubuntu2 [10.0 kB]
Fetched 879 kB in 2s (455 kB/s)
Preconfiguring packages ...
Selecting previously unselected package openssh-sftp-server.
(Reading database ... 40788 files and directories currently installed.)
Preparing to unpack .../openssh-sftp-server_1:9.6p1-3ubuntu13.5_amd64.deb ...
Unpacking openssh-sftp-server (1:9.6p1-3ubuntu13.5) ...
Selecting previously unselected package libwrap0:amd64.
Preparing to unpack .../libwrap0_7.6.q-33_amd64.deb ...
Unpacking libwrap0:amd64 (7.6.q-33) ...
Selecting previously unselected package openssh-server.
Preparing to unpack .../openssh-server_1:9.6p1-3ubuntu13.5_amd64.deb ...
Unpacking openssh-server (1:9.6p1-3ubuntu13.5) ...
Selecting previously unselected package ncurses-term.
Preparing to unpack .../ncurses-term_6.4+20240113-1ubuntu2_all.deb ...
Unpacking ncurses-term (6.4+20240113-1ubuntu2) ...
Selecting previously unselected package ssh-import-id.
Preparing to unpack .../ssh-import-id_5.11-0ubuntu2_all.deb ...
Unpacking ssh-import-id (5.11-0ubuntu2) ...
Setting up openssh-sftp-server (1:9.6p1-3ubuntu13.5) ...
Setting up ssh-import-id (5.11-0ubuntu2) ...
Setting up libwrap0:amd64 (7.6.q-33) ...
Setting up ncurses-term (6.4+20240113-1ubuntu2) ...
Setting up openssh-server (1:9.6p1-3ubuntu13.5) ...
Creating config file /etc/ssh/sshd_config with new version
Creating SSH2 RSA key; this may take some time ...
3072 SHA256:kF0tI55uI2NkCgI2hpXcJZbZf/kk7+SpMjriZkOxgcA root@DESKTOP-6NQEOMH (RSA)
Creating SSH2 ECDSA key; this may take some time ...
256 SHA256:fP0Cj2h5pwI1ERzhIE078rpA4ND5dAd+7cQMfYvJmM root@DESKTOP-6NQEOMH (ECDSA)
Creating SSH2 ED25519 key; this may take some time ...
256 SHA256:tacB1R3PhG/qPTAo2A2hZyn98gH0D0T0S1GaewyHo root@DESKTOP-6NQEOMH (ED25519)
```

2. Criação das chaves(Já havia criado as chaves no PoweShell):

```
PS C:\Users\Luan> cd ~\.ssh
PS C:\Users\Luan\.ssh> ls

Diretório: C:\Users\Luan\.ssh

Mode                LastWriteTime         Length Name
----                -
-a-----         14/11/2024    22:54         1831 id_rsa
-a-----         14/11/2024    22:54          403 id_rsa.pub
-a-----         14/11/2024    22:49          96 known_hosts
```

3. Cópia da chave pública:

Obs: Não consegui utilizar o comando ssh-copy-id. Então, realizei a cópia da chave manualmente, criei o diretório /.ssh no Linux e depois criei o arquivo /.ssh/authorized_keys e coleí a chave do Windows.

```
PS C:\Users\Luan> type $env:USERPROFILE\.ssh\id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQAC+2o2GjnWsj6u4u9i8na14g2K1mkT5P843krQy+/xft9qP1uCmw+16N5PIuEXAK/ZnzLgHXvni+rt2KbWyo9c/mQ+C1vKV+KmJ4JwFG0AFw
9IRtDy181AD28s7i5criTV64Cyy/5E8tjKo979Cdm9e4yFU4gUUVbUtJ9kweiCg59vI7dic9TRI1CFFCUAwkdYoW4bdTsCa9x2gvs5BVxPF49Mk93X8ZDJjRw+KW1SEwo/jy0HBKSVM01zpb
nZlwYPX7WAnCrI7Kcd1XWbVjCs3s26B7dup1fDwsyj6Sz5hopjYZS6FPTeirSrWd1852SiNt0WuX0aGS2UIofsDD3L luan@DESKTOP-6NQEQQMH
PS C:\Users\Luan> ssh-copy-id -i $env:USERPROFILE\.ssh\id_rsa.pub victor@192.168.186.92
ssh-copy-id : O termo 'ssh-copy-id' não é reconhecido como nome de cmdlet, função, arquivo de script ou programa
operável. Verifique a grafia do nome ou, se um caminho tiver sido incluído, veja se o caminho está correto e tente
novamente.
No linha:1 caractere:1
+ ssh-copy-id -i $env:USERPROFILE\.ssh\id_rsa.pub victor@192.168.186.92
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (ssh-copy-id:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException

PS C:\Users\Luan> ssh-copy-id -i ~/.ssh/id_rsa.pub victor@192.168.186.92
ssh-copy-id : O termo 'ssh-copy-id' não é reconhecido como nome de cmdlet, função, arquivo de script ou programa
operável. Verifique a grafia do nome ou, se um caminho tiver sido incluído, veja se o caminho está correto e tente
novamente.
No linha:1 caractere:1
+ ssh-copy-id -i ~/.ssh/id_rsa.pub victor@192.168.186.92
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (ssh-copy-id:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException
```

```
victor@DESKTOP-6NQEQQMH:~$ mkdir ~/.ssh
victor@DESKTOP-6NQEQQMH:~$ chmod 700 ~/.ssh
victor@DESKTOP-6NQEQQMH:~$ nano ~/.ssh/authorized_keys
```

```
victor@DESKTOP-6NQEQQMH ~
GNU nano 7.2 /home/victor/.ssh/authorized_keys
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQAC+2o2GjnWsj6u4u9i8na14g2K1mkT5P843krQy+/xft9qP1uCmw+16N5PIuEXAK/ZnzLgHXvni+rt2KbWyo9c/mQ+C1vKV+KmJ4JwFG0AFw9IRtDy181AD28s7i5criTV64Cyy/5E8tjKo979Cdm9e4yFU4gUUVbUtJ9kweiCg59vI7dic9TRI1CFFCUAwkdYoW4bdTsCa9x2gvs5BVxPF49Mk93X8ZDJjRw+KW1SEwo/jy0HBKSVM01zpb
nZlwYPX7WAnCrI7Kcd1XWbVjCs3s26B7dup1fDwsyj6Sz5hopjYZS6FPTeirSrWd1852SiNt0WuX0aGS2UIofsDD3L luan@DESKTOP-6NQEQQMH

Help  Write Out  Where Is  Cut  Execute  Location  Read 1 line  Set Mark  To Bracket  Previous  Back  Prev Word
Exit  Read File  Replace  Paste  Justify  Go To Line  Redo  Copy  Where Was  Next  Forward  Next Word
```

4. Visualização da chave copiada no diretório do Linux:

```
victor@DESKTOP-6NQEPMH:~$ cat ~/.ssh/authorized_keys
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQAC+2o2GjnWsj64u9i8na14g2KimKT5P843krQy+/xft9qP1uCmw+16N5
PIuEXAk/ZnzLgHXvni+rt2KbWyo9c/mQ+C1vKV+KmJ4JwFG0AFw9IRtDy181AD28s7i5criTV64Cyy/5E8tjKo979Cdm9e
4yfU4gUUVbUtJ9kweiCg59vI7dic9TRilCFFCUAwkdYow4bdTsCa9x2gvs5BVxPF49Mk93X8ZDJjRw+Kw1SEwo/jy0HBKS
VKM01zpbmZlwYPX7WAnCrI7Kcd1XWBVjCs3s26B7dup1fDwsyj6Sz5hopjYZS6FPTeirSrWD1B52SiNt0WuX0aGS2UIofs
DD3L luan@DESKTOP-6NQEPMH
```

5. Teste de conexão(**Sucesso**):

```
PS C:\Users\Luan> ssh victor@192.168.186.92
The authenticity of host '192.168.186.92 (192.168.186.92)' can't be established.
ED25519 key fingerprint is SHA256:taCBIR3M+G/qPTAo2A2hZYn98gUH0DdOTQSiGaewyHo.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.186.92' (ED25519) to the list of known hosts.
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 5.15.167.4-microsoft-standard-WSL2 x86_64)

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

System information as of Fri Nov 15 09:52:16 -03 2024

System load:  0.01          Processes:            30
Usage of /:   0.1% of 1006.85GB Users logged in:     1
Memory usage: 9%           IPv4 address for eth0: 192.168.186.92
Swap usage:   0%

victor@DESKTOP-6NQEPMH:~$
```