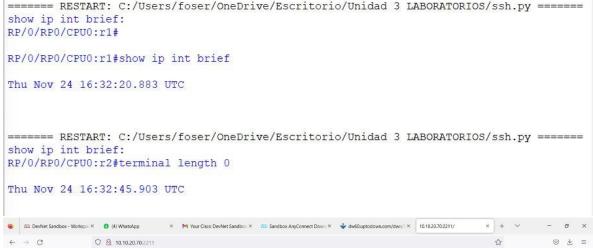
#### Instalacion de Netmiko

```
Administrator Simbolo del sistema Requirement already satisfied: pyyaml>=5.3 in c:\users\foser\appdata\local\programs\python\python310\lib\site-packages (from netmiko) (6.0) Requirement already satisfied: ntc-templates>=2.0.0 in c:\users\foser\appdata\local\programs\python\python310\lib\site-packages (from netmiko) (3.1.0) Requirement already satisfied: stcp=0.13.3 in c:\users\foser\appdata\local\programs\python\python310\lib\site-packages (from netmiko) (3.1.0) Requirement already satisfied: stc):\users\foser\appdata\local\programs\python\python310\lib\site-packages (from textfism=1.1.2-netmiko) (1.16.0) Requirement already satisfied: future in c:\users\foser\appdata\local\programs\python\python310\lib\site-packages (from textfism=1.1.2-netmiko) (0.18.2) Requirement already satisfied: cyptogramp\py=2.5 in c:\users\foser\appdata\local\programs\python\python310\lib\site-packages (from paramiko>=2.7.2-netmiko) (3.8.0.1) Requirement already satisfied: pyrcp=3.1.3 in c:\users\foser\appdata\local\programs\python\python310\lib\site-packages (from paramiko>=2.7.2-netmiko) (4.0.1) Requirement already satisfied: pyrcp=3.0.1 in c:\users\foser\appdata\local\programs\python\python310\lib\site-packages (from paramiko>=2.7.2-netmiko) (1.5.0) Requirement already satisfied: pyrcp=3.0.1 in c:\users\foser\appdata\local\programs\python\python310\lib\site-packages (from paramiko>=2.7.2-netmiko) (1.5.0) Requirement already satisfied: pyrcparser in c:\users\foser\appdata\local\programs\python\python310\lib\site-packages (from cffi>=1.12-xcyptography>=2.5-xparamiko>=2.7.2-xnetmiko) (1.5.1) Requirement already satisfied: pyrcparser in c:\users\foser\appdata\local\programs\python\python310\lib\site-packages (from cffi>=1.12-xcyptography>=2.5-xparamiko>=2.7.2-xnetmiko) (2.21) C:\WINDOMS\system32x_=
```

#### Importar netmiko

```
#Nombre: Edgar Francisco Hernandez Mendez
from netmiko import ConnectHandler
sshCli = ConnectHandler(
        device type = 'cisco ios',
        host = '10.10.20.70',
       port = 2221,
       username = 'admin',
       password = 'admin'
output = sshCli.send command("sh ip int brief", read timeout= 10)
print (output)
config commands= [
    'int Loopback 1',
    'ipv4 address 192.168.8.1 255.255.255.0',
    'no sh'
    'description WHATEVER'
sshCli.send command('configure terminal', read timeout= 10)
sshCli.send config set(config commands)
```

```
ssh.py - C:/Users/foser/OneDrive/Escritorio/Unidad 3 LABORATORIOS/ssh.py (3.10.8)
File Edit Format Run Options Window Help
import netmiko
from netmiko import ConnectHandler
sshCli = ConnectHandler(
       device type='cisco ios',
       host='10.10.20.70',
       port=2231,
       username='admin',
       password='admin'
output = sshCli.send command("show ip int brief", read timeout = 10, expect string = r"#")
print ("show ip int brief:\n{}\n".format(output))
#print(output)
===== RESTART: C:/Users/foser/OneDrive/Escritorio/Unidad 3 LABORATORIOS/ssh.py ======
show ip int brief:
RP/0/RP0/CPU0:r1#
```



SSH-2.0-OpenSSH\_7.2p2 Ubuntu-4ubuntu2.8 Protocol mismatch.

```
Wed Nov 30 02:50:57.423 UTC

Interface IP-Address Status Protocol Vrf-Name Loopbackl 192.168.8.1 Up Up default MgmtEth0/RP0/CPU0/0 192.168.122.21 Up Up default GigabitEthernet0/0/0/1 unassigned Shutdown Down default GigabitEthernet0/0/0/2 unassigned Shutdown Down default GigabitEthernet0/0/0/2 unassigned Shutdown Down default GigabitEthernet0/0/0/2 unassigned Shutdown Down default GigabitEthernet0/0/0/3 unassigned Shutdown Down default GigabitEthernet0/0/0/3 unassigned Shutdown Down default GigabitEthernet0/0/0/3 unassigned Shutdown Down default GigabitEthernet0/0/0/4 unassigned Shutdown Down default GigabitEthernet0/0/0/4 unassigned Shutdown Down default GigabitEthernet0/0/0/4 Shutdown Down default GigabitEthernet0/0/0/4 Shutdown Down default
```

### Conclusión

## ¿Qué es Netmiko?

Como tal es una librería de redes multivendedores estándar para las conexiones ssh Python.

# ¿Qué comandos podemos ejecutar adicionalmente?

Enable, sh run, sh ip route, interface Loopback, router eigr

## ¿Cómo interactúa Netmiko con Python?

Envió de comandos, soporte extendido de la funcionalidad ssh, recuperar salidas, cisco ios/ios-xe, nx-os, cortafuegos

### ¿Como es esa vía de comunicación?

Esta vía de comunicación se estable mediante ssh