



**Facultad de:** *Infraestructura de Redes Digitales.*

**Nombre del Alumno(a):**

*Jessica Quetzali Castillo Avilés*

**Matrícula:** *1221100373*

**Materia:**

*PROGRAMACIÓN DE REDES.*

**Nombre de la Actividad:**

*Laboratorio 2.9*

**Docente:**

*Gabriel Barrón Rodríguez*

*Dolores Hidalgo C.I.N.; a 07 de Diciembre 2022*



Universidad Tecnológica  
del Norte de Coahuila  
Organismo Público Descentralizado del Gobierno del Estado

## Lab 2.9 – NETCONF w/Python: Get Operational Data

```
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 b
D64] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/jecql/Documents/2.9.py =====
Squeezed text (228 lines).
Name: GigabitEthernet1 MAC: 00:50:56:bf:9e:9b Input: 231174 Output 595438
Name: GigabitEthernet2 MAC: 00:50:56:bf:18:6f Input: 0 Output 0
Name: GigabitEthernet3 MAC: 00:50:56:bf:fa:74 Input: 0 Output 0
Name: Loopback1 MAC: 00:1e:e6:e3:f5:00 Input: 0 Output 0
Name: Loopback98 MAC: 00:1e:e6:e3:f5:00 Input: 0 Output 0
Name: Loopback99 MAC: 00:1e:e6:e3:f5:00 Input: 0 Output 0
Name: Control Plane MAC: 00:00:00:00:00:00 Input: 0 Output 0
>>>
```

```
2.9.py - C:/Users/jecql/Documents/2.9.py (3.9.1)
File Edit Format Run Options Window Help
from ncclient import manager
import xml.dom.minidom

m= manager.connect(
    host="10.10.20.48",
    port=830,
    username="developer",
    password="Clsc012345",
    hostkey_verify=False
)

netconf_filter = """
<filter>
<interfaces-state xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces"
</filter>
"""

netconf_reply = m.get(filter = netconf_filter)
print(xml.dom.minidom.parseString(netconf_reply.xml)

import xmltodict
netconf_reply_dict = xmltodict.parse(netconf_reply.xml)
for interface in netconf_reply_dict["rpc-reply"]["data"]["interface-state"]
    print("Name: {} MAC: {} Input: {} Output {}".format(
        interface["name"],
        interface["phys-address"],
        interface["statistics"]["in-octets"],
        interface["statistics"]["out-octets"]
    ))
```