NETCONF

Lab equipment:

- CSRv VM

- Sandbox:

CSR1000V Host: ios-xe-mgmt.cisco.com

SSH Port: 8181

NETCONF Port: 10000

RESTCONF Ports: 9443 (HTTPS)

Username: developer

Password: C1sco12345

1. Create python script:
   1. Get state information for all interfaces

HINT:

Use data model: ietf-interfaces . Module can be accessed with:

Clone YANG repo: https://github.com/YangModels/yang.git

pyang -f tree ietf-interfaces.yang

Create variable to store the connection.

{{variable\_name}} = manager.connect(host="XX.XX.XX.XX",

port=XX,

username="XX",

password="XX",

hostkey\_verify=False)

Build filter:

<filter>

<native xmlns="http://cisco.com/ns/yang/ietf-interfaces" />

<interfaces>

</interfaces>

</filter>

"""

Use get() ncclinet.manager method to get state information:

state = {{variable\_name}}.get(filter={{ filter\_name }})

* 1. Get state information only for GigabitEthernet1

HINT:

Modify filter:

"""

<filter>

<native xmlns="http://cisco.com/ns/yang/ietf-interfaces" />

<interfaces-state>

<interface>

<name> GigabitEthernet1 </name>

</interface>

</interfaces-state>

</filter>

"""

Convert the output to Python Dictionary(received output from device is XML)

xmltodict.parse({{response\_variable}}.xml)

3.Print information during run-time of the script(access correct keys):

Admin\_status:

Operation\_status: