

The image shows a development environment with two IDE windows. The left window, titled "IDLE Shell 3.10.7", displays an XML configuration for a Cisco IOS-XE device. The right window, titled "lab28.py - C:/Users/Nergal/Desktop/lab28.py (3.10.7)", shows a Python script that connects to the device via Netconf, retrieves the configuration, and applies a filter. The script is being executed, and the output is visible in the console.

Left Window (IDLE Shell 3.10.7):

```
===== RESTART: C:/Users/Nergal/Desktop/lab28.py =====
<?xml version="1.0" ?>
<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="urn:uuid:49d29763-d171-4bc8-b79e-7466620c4b75">
  <data>
    <native xmlns="http://cisco.com/ns/yang/Cisco-IOS-XE-native">
      <version>16.11</version>
      <boot-start-marker/>
      <boot-end-marker/>
      <banner>
        <motd>
          <banner>*C/c/banner*
        </motd>
      </banner>
      <memory>
        <free>
          <low-watermark>
            <processor>80557</processor>
          </free>
        </memory>
        <call-home>
          <contact-email-addr xmlns="http://cisco.com/ns/yang/Cisco-IOS-XE-call-home">sch-smart-licensing@cisco.com</contact-email-addr>
          <profile xmlns="http://cisco.com/ns/yang/Cisco-IOS-XE-call-home">
            <profile-name>CiscoTAC-1</profile-name>
            <active>true</active>
          </profile>
        </call-home>
        <service>
          <timestamp>
            <debug>
              <datetime>
                <msec/>
              </datetime>
            </debug>
          </timestamp>
        </service>
      </native>
    </data>
  </rpc-reply>

===== RESTART: C:/Users/Nergal/Desktop/lab28.py =====
<?xml version="1.0" ?>
<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="urn:uuid:979ded17-929f-41bd-b4ca-bcb497f66555">
  <ok/>
</rpc-reply>
```

Right Window (lab28.py - C:/Users/Nergal/Desktop/lab28.py (3.10.7)):

```
import ncclient
from ncclient import manager
import xml.dom.minidom

m = manager.connect(
    host="10.10.20.48",
    port=830,
    username="developer",
    password="Cisco12345",
    hostkey_verify=False
)

netconf_reply = m.get_config(source="running")
print(netconf_reply)
import ncclient
from ncclient import manager
import xml.dom.minidom

m = manager.connect(
    host="10.10.20.48",
    port=830,
    username="developer",
    password="Cisco12345",
    hostkey_verify=False
)

netconf_reply = m.get_config(source="running")
netconf_filter = """
<filter>
  <native xmlns="http://cisco.com/ns/yang/Cisco-IOS-XE-native" />
</filter>
"""
netconf_reply = m.get_config(source="running", filter=netconf_filter)
print(xml.dom.minidom.parseString(netconf_reply.xml).toprettyxml())
```