**TSTP for Evaluating Pentesting Strategies (2.11.D.1 of CSR)**

<DUT Details: > Ex: Router

<DUT Software Version:>

<Digest Hash of OS>

<Digest Hash of Configuration>

<Applicable ITSAR: >

<ITSAR Version No:>

<OEM Supplied Document list: >

1. **<ITSAR Section No & Name>**  **Section 18: Installation and Maintenance**
2. **<Security Requirement No & Name > 2.11.D.1 Evaluating Pentesting Strategies**
3. **<Requirement Description: >**

The Device shall implement a complete persistent pen-testing strategy.

[Ref: GSMA CLP-13 7.11]

1. **DUT Confirmation Details**:

Smart energy meter model no MB074TI

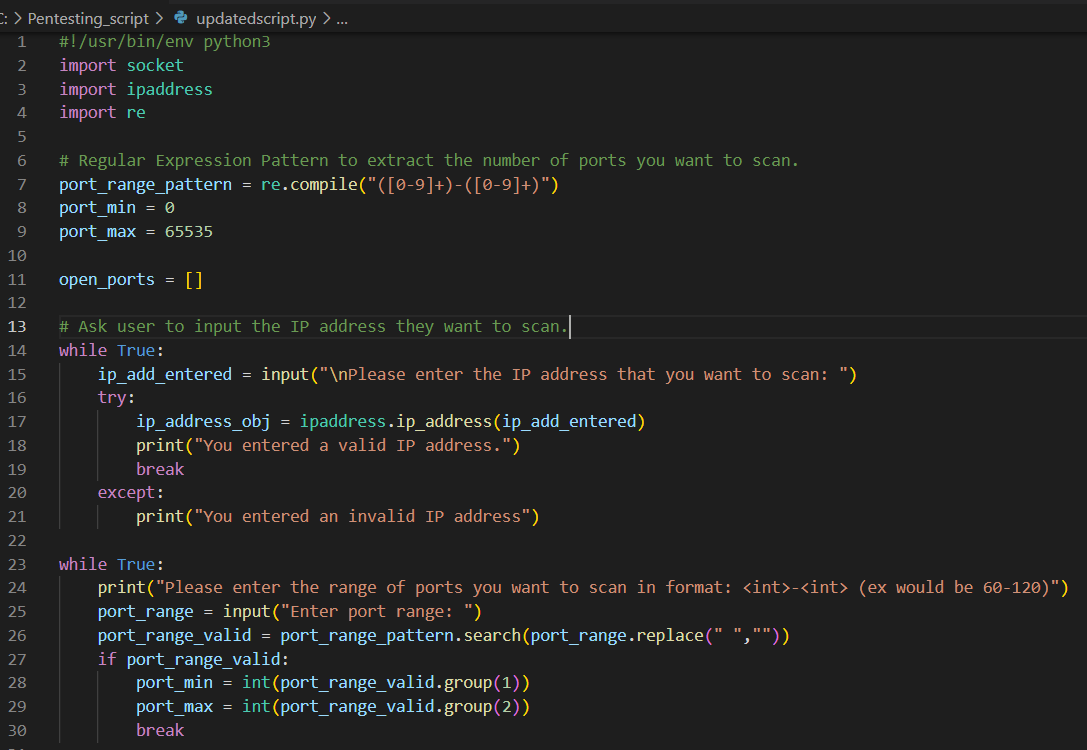
1. **DUT Configuration:**

Smart energy meter model no MB074TI

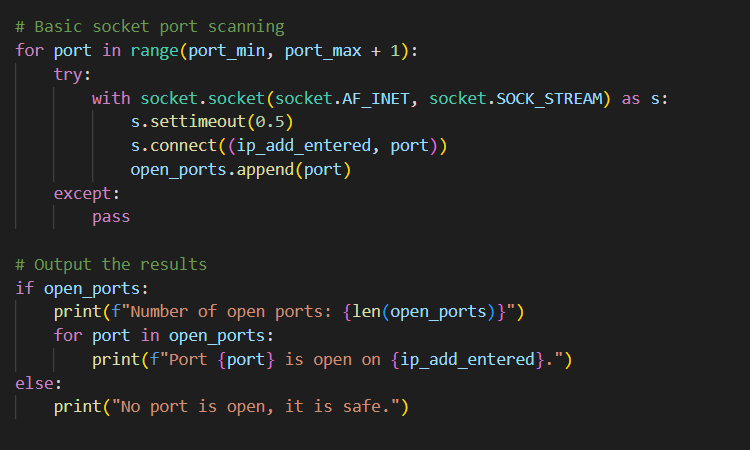
1. **Preconditions**
2. One DUT (Smart energy meter)
3. The tester has privileges to create an interactive session between the end user and the supplier both locally and remotely.
4. Vendor should specify the mechanism for hardware tempering.
5. **Test Objective**

To detect the open ports in the network and take steps to protect the ports from getting attacked by cyber-attacks for illegal purposes.

1. **Test Plan :**
2. Set Up Test Environment:
   1. Use a virtual network with controlled open and closed ports.
   2. Ensure a mix of open and closed ports on various IPs.
3. Execute Test Cases:
   1. Run the script with various IP addresses and port ranges.
4. Edge Cases:
   1. Test with the maximum port range (0-65535).
   2. Test with the minimum port range (single port like 80-80).
5. Performance Testing:
   1. Measure the time taken to scan a large range of ports.
   2. Ensure the script handles timeouts and large inputs gracefully.
6. **CODEWORK-PYTHON SCRIPT** 🡪



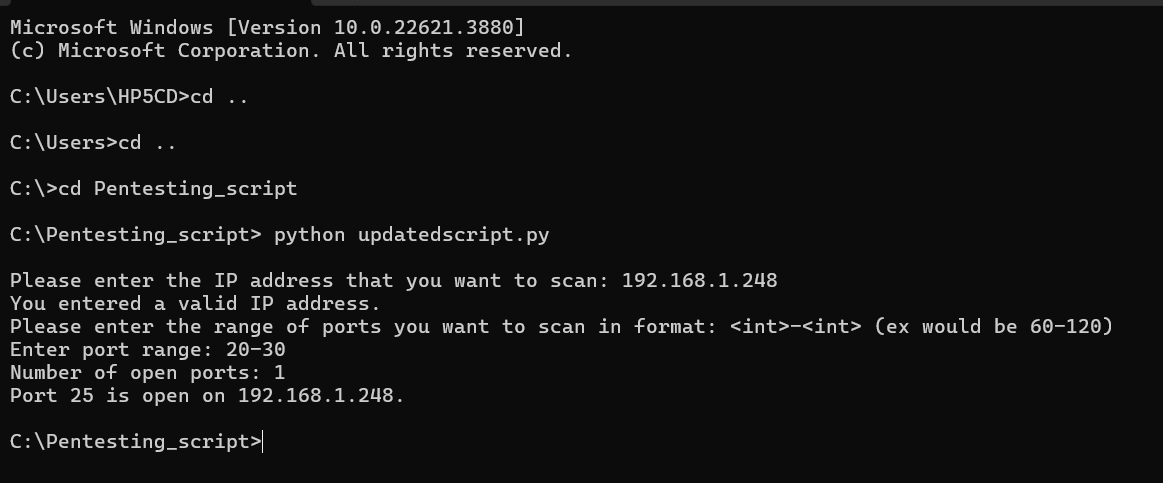
**Figure 1.1a**



**Figure 1.1b**

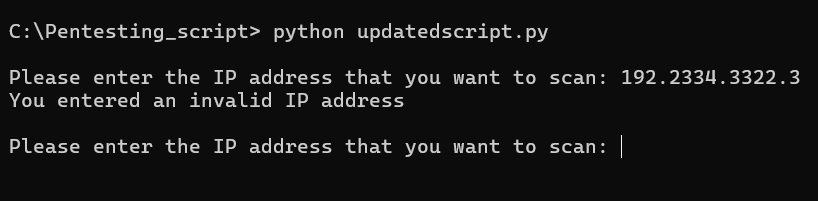
**OUTPUT🡪**

* TestCase1: 192.168.1.248(Valid IP Address)



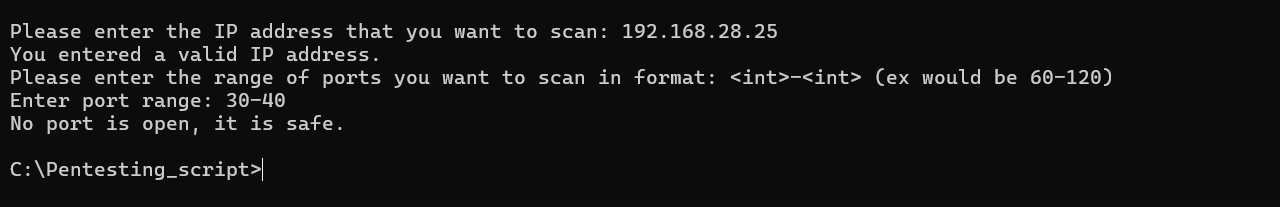
**Fig-2.1(Returning Output)**

* TestCase2: 192.2334.3322.3(Invalid IP Address)



**Fig-2.2(Returning Output)**

* TestCase3: 192.168.28.25(Local host)



**Fig-2.3(Returning Output)**

**CONCLUSION**: ALL THE TEST CASES ARE TESTED AND CHECKED TO ENSURE SAFETY.