Port RADAR testing report

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Project Information

- **Project Name:** Port Radar
- **Version:** 1.0
- **Test Date:** 30/05/2025
- **Tested By:** Jeremie Loriaux
- **Coach/Supervisor:** Mathias / Sananda

Objective

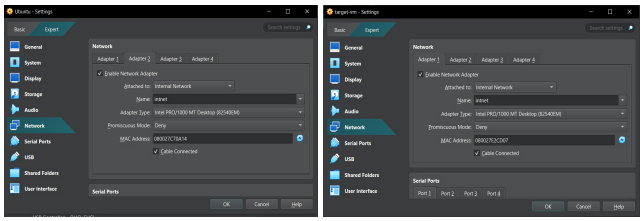
The objective of this testing is to validate the functionality, stability and accuracy of the Port Radar program. The program is expected to identify open TCP ports of a chosen ip address or domain name with either a normal tcp scan or a syn scan for better stealth.

Test Environment

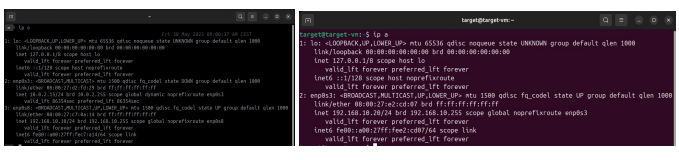
Component	Details
Machines	Ubuntu(VM1), target-vm(VM2)
Operating System	Ubuntu 24.04.2 LTS, Ubuntu 22.04 LTS
Python Version	3.12.3
Network Setup	Local Network named intnet

Environement setup

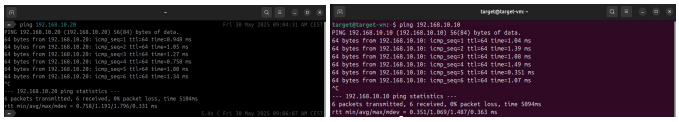
1. Setup both VM's on the same internal network>\ | VM1: Internal Adapter, Intnet | VM2: Internal Adapter, Intnet |\



2. Assigned the VM's ip addresses on the same subnet (/24).\ | ——VM1: 192.168.10.10 ——|—— VM2: 192.168.10.20 ——|\

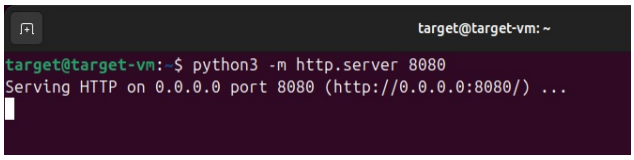


3. Pinged each other to check if the can reach each other.\ | ——VM1: Ping successfull ——|—— VM2:Ping successfull ——|\



4.

Open port 8080 with the command python -m http.server 8080 on VM2.\



Test Cases

Test Case ID	Description	Inputs	Expected Result	Actual Result	Pass/Fail
TC01	Scan open TCP ports on localhost	127.0.0.1, rest default	List of open ports on local machine	[631, 6463, 9003, 9001, 9002, 900, …]	Pass
TC02	Scan open TCP ports on VM2	192.168.10.20, rest default	List of open ports on target machine	None	Fail
TC03	Scan open TCP ports on VM2 after opening port 8080	192.192.168.10.20, rest default	[8080]	[8080]	Pass
TC04	Tested multiple invalid ip address inputs	hello, 256.0.0.0, 987	Program asks to try again	Invalid input, please try again	Pass
TC05	Tested multiple invalid port range inputs	hello, 0, 65536, 22.0, 22,0 0-100	Program asks to try again	Invalid input, please try again	Pass
TC06	Tested multiple invalid scan type inputs	hello, 09, sin	Program asks to try again	Invalid input, please try again	Pass
TC07	Tested multiple invalid thread inputs	hello, 0, 11000, 1.5	Program asks to try again	Invalid input, please try again	Pass
TC08	Tested invalid timeout input	hello	Program asks to try again	Invalid input, please try again	Pass
TC09	Tested multiple invalid rate limit inputs	hello, 1	Program asks to try again	Invalid input, please try again	Pass
TC10	Tested multiple delay inputs	hello, 6.0	Program asks to try again	Invalid input, please try again	Pass
TC11	Tested multiple log inputs	hello, 4, h	Program asks to try again	Invalid input, please try again	Pass

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Bugs / Issues Found

No bugs were detected.

Summary

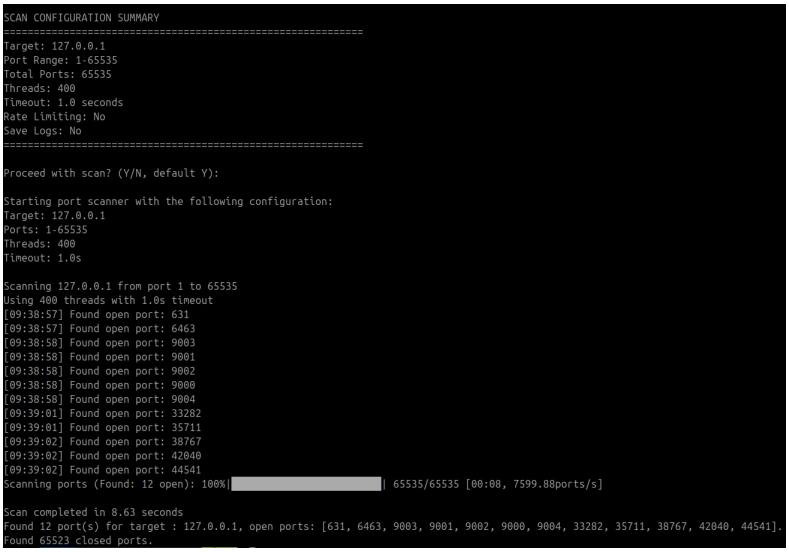
- **Total Test Cases:** 11
- **Passed:** 10
- **Failed:** 1

Conclusion:
The scanner performs as expected in identifying open ports.

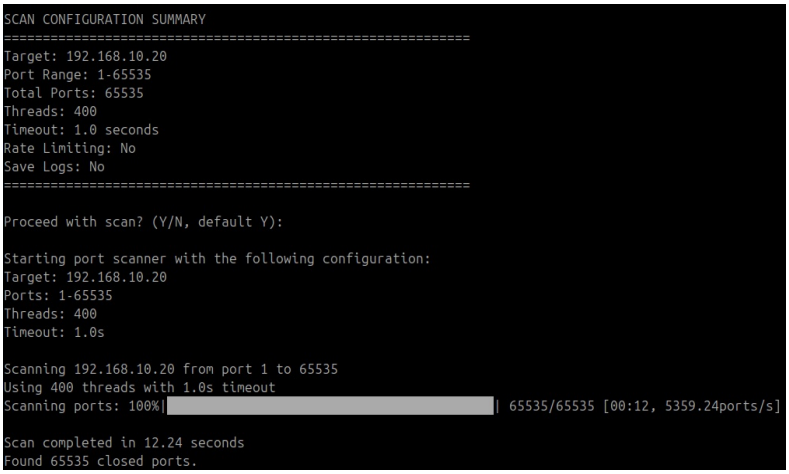
Attachments

Test screenshots :

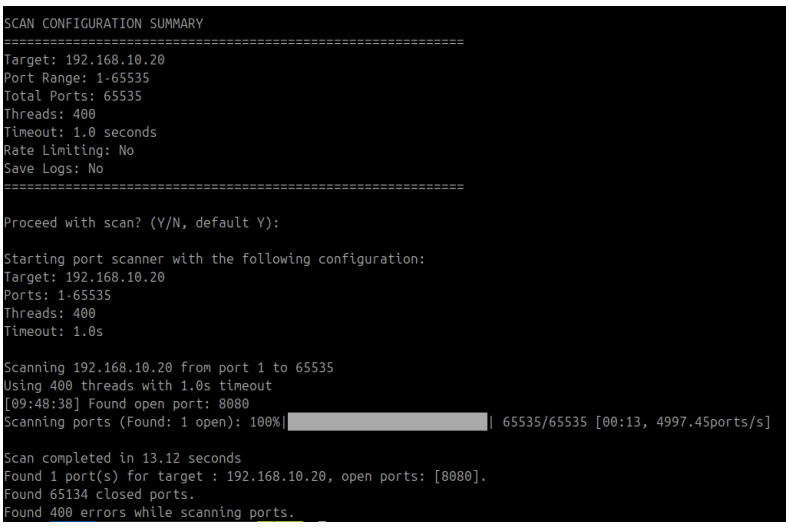
Test Case 1:



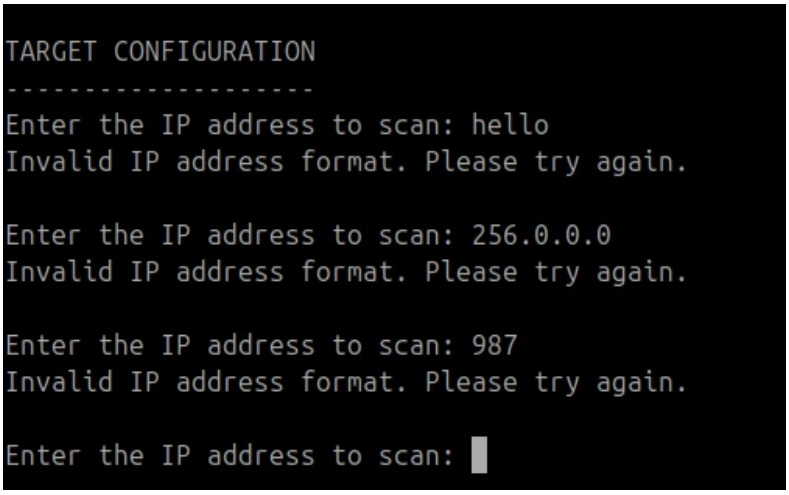
Test Case 2:



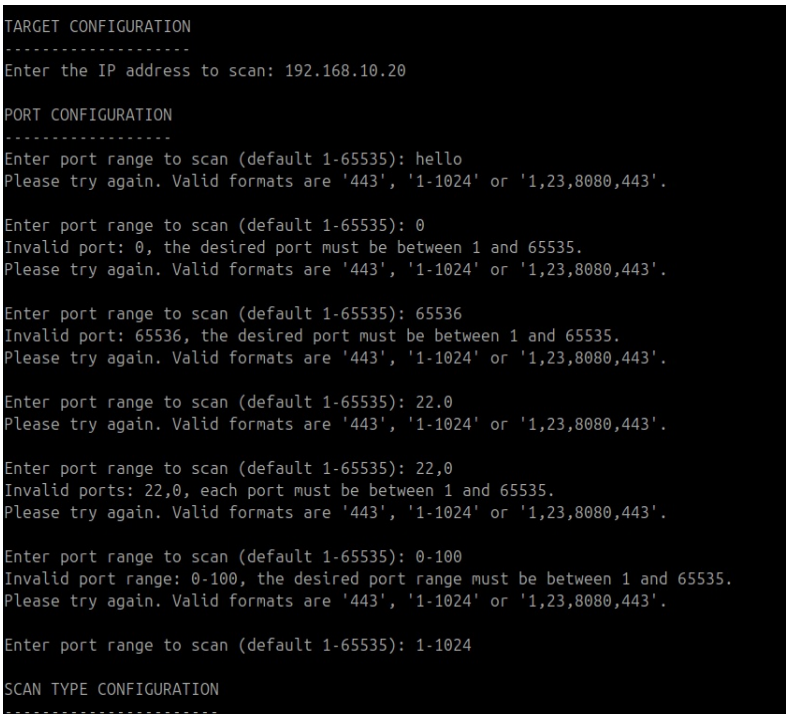
Test Case 3:



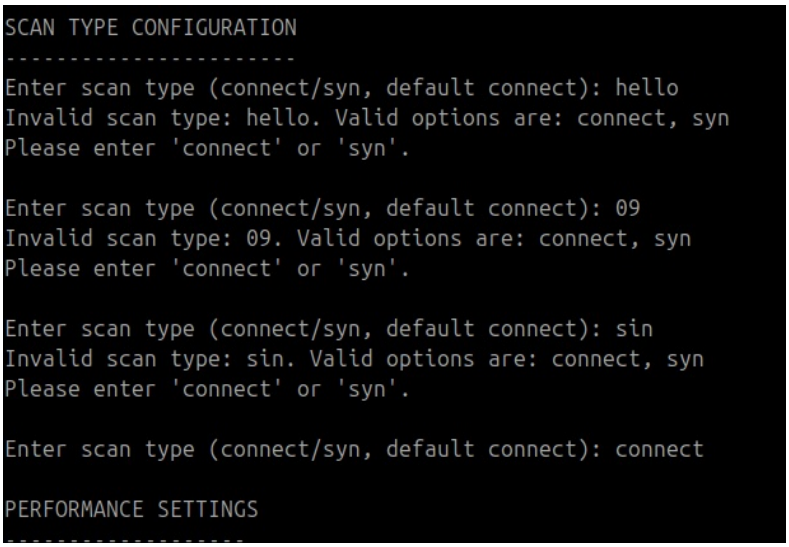
Test Case 4:



Test Case 5:



Test Case 6:



Test Case 7:

```
PERFORMANCE SETTINGS
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Enter number of threads to use (default 400 (CPU bound), max 10000): hello
Please enter a valid number to try again.

Enter number of threads to use (default 400 (CPU bound), max 10000): 0
Threads must be between 1 and 10000.
Please enter a valid number to try again.

Enter number of threads to use (default 400 (CPU bound), max 10000): 11000
Threads must be between 1 and 10000.
Please enter a valid number to try again.

Enter number of threads to use (default 400 (CPU bound), max 10000): 1.5
Please enter a valid number to try again.

Enter number of threads to use (default 400 (CPU bound), max 10000):

Enter connection timeout in seconds (default 1):
```

Test Case 8:

```
Enter connection timeout in seconds (default 1): hello
Please enter a valid number to try again.

Enter connection timeout in seconds (default 1): 0

SECURITY SETTINGS
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```

Test Case 9:

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SECURITY SETTINGS
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Do you want to enable rate limiting to avoid detection? (Y/N, default N): hello
Please input Y or N.

Do you want to enable rate limiting to avoid detection? (Y/N, default N): 1
Please input Y or N.

Do you want to enable rate limiting to avoid detection? (Y/N, default N): y

Enter delay between scans in seconds (default 0.1):
```

Test Case 10:

```
Enter delay between scans in seconds (default 0.1): hello
Please input a number between 0.0 and 5.0 to try again.

Enter delay between scans in seconds (default 0.1): 6.0
Invalid delay: 6.0, delay must be between 0.0 seconds and 5.0 seconds.
Please input a number between 0.0 and 5.0 to try again.

Enter delay between scans in seconds (default 0.1): 3.5

Do you want to save scan results to a CSV log file? (Y/N, default N):
```

Test Case 11:

```
Do you want to save scan results to a CSV log file? (Y/N, default N): hello
Please input Y or N.

Do you want to save scan results to a CSV log file? (Y/N, default N): 4
Please input Y or N.

Do you want to save scan results to a CSV log file? (Y/N, default N): h
Please input Y or N.

Do you want to save scan results to a CSV log file? (Y/N, default N): y

SCAN CONFIGURATION SUMMARY
============================================================
Target: 192.168.10.20
Scan Type: CONNECT
Port Range: 1-1024
Total Ports: 1024
Threads: 400
Timeout: 0.0 seconds
Rate Limiting: Yes
Scan Delay: 3.5 seconds
Save Logs: Yes
============================================================
```