

Spring 2022 (2022SP)

COMP421: Information Security | Section A

Semester Project Documentation

Project Title: WAR Network scanner

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Requirements:

Libraries:

- socket
- os
- pyQt5
- sys
- subprocess
- whois11

Procedure

Download and Install Libraries mentioned in requirements.txt file:

• pip install -r requirements.txt

Running Python file

- cd 'path'
 (State the directory path where the .py file is located)
- python main.py

Overview:

The 'WAR Network Scanner' is a script written in Python3 that allows port scanning, backdoor detection, CVE detection, services detection and much more. The program is interactive and simply requires the user to run it via console to begin. The scripts are backed by NMAP and Whois.

Commands:

• Ping IP command

The ping command is used to identify active hosts on a network. This identifies all of the IP addresses that are currently online without sending any packets to these hosts.

• Nmap scan

A stealthy scan that detects open ports, scripts, traceroutes, operating system being used and much more.

• FTP backdoor Detection

This scan is used to look for exploitable entry points and vulnerabilities that can be used to access a workstation.

• HTTP-DLink Backdoor Detection

This function tests for the presence of the ProFTPD 1.3.3c backdoor reported as BID 45150. This script attempts to exploit the backdoor using the innocuous id command by default.

• CVE detection

This command tests the Common Vulnerabilities and Exposures (CVE) in a network and identifies threats related to the security of information systems.

• Services detection

This scan is used to check for services that are running on an IP/domain along with open ports and the proxy versions they use.

• Scan vulnerable ports

This function scans the top 10 vulnerable ports that could potentially act as an entry point.

• Whois Command

This function exports important information about open ports to a text file that is stored in the root directory along with the .py script.

References:

Back Door Detection:

https://nmap.org/nsedoc/scripts/ftp-proftpd-backdoor.html

NMap for Windows

https://nmap.org/download.html#windows

Important NMap commands

https://www.jigsawacademy.com/blogs/cyber-security/nmap-commands/

WhoIs Library in Python

https://pypi.org/project/whois11/

Original d9scan

https://github.com/sbinsaleem/d9scan

Python GUI designer

https://realpython.com/qt-designer-python/