

<b>FORM 1</b> THE PATENTS ACT 1970 (39 of 1970) and THE PATENTS RULES, 2003 <b>APPLICATION FOR GRANT OF PATENT</b> (See section 7, 54 and 135 and sub-rule (1) of rule 20)		(FOR OFFICE USE ONLY)			
		Application No.			
		Filing date:			
		Amount of Fee Paid:			
		CBR No:			
Signature:					
<b>1. APPLICANT'S REFERENCE /IDENTIFICATION NO. (AS ALLOTTED BY OFFICE)</b>					
<b>2. TYPE OF APPLICATION [Please tick ( ) at the appropriate category]</b>					
Ordinary ( <input type="checkbox"/> )		Convention ( )		PCT-NP ( )	
Divisional ( <input type="checkbox"/> )	Patent of Addition ( )	Divisional ( )	Patent of Addition ( )	Divisional ( )	Patent of Addition ( )
<b>3A. APPLICANT(S)</b>					
Name in Full		Nationality	Country of Residence	Address of the Applicant	
Rohit D Rokesh Varma V Sanjay S Shreyas S		Indian	India	House No.	<b>Sri Shakthi Institute of Engineering and Technology</b>
				Street	L&T Bypass
				City	Coimbatore
				State	Tamil Nadu
				Country	India
				Pin code	641062
<b>3B. CATEGORY OF APPLICANT / [Please tick ( ) at the appropriate category]</b>					
Natural Person ( <input type="checkbox"/> )		Other than Natural Person			
		Small Entity ( )	Startup ( )	Others ( )	
<b>4. INVENTOR(S) [Please tick ( ) at the appropriate category]</b>					
Are all the inventor(s) same as the applicant(s) named above?				Yes ( <input type="checkbox"/> )	No ( )
<b>If "No", furnish the details of the inventor(s)</b>					
Name in Full		Nationality	Country of Residence	Address of the Inventor	
				House No., Street,	
				City	
				State	
				Country	
				Pin code	
<b>5. TITLE OF THE INVENTION</b>					
			IN/PA No		

<b>6. AUTHORISED REGISTERED PATENT AGENT(S)</b>		Name			
		Mobile No.			
<b>7. ADDRESS FOR SERVICE OF APPLICANT IN INDIA</b>		Name		Rohit D	
		Postal Address		Sri Shakthi Institute of Engineering and Technology, Sri Shakthi Nagar, L&T By-pass, Chinniyampalayam Post, Coimbatore - 641062	
		Telephone No.			
		Mobile No.		+91 7339231986	
		Fax No.			
		E-mail ID		rohitdevaraj16@gmail.com	
<b>8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILED IN CONVENTION COUNTRY, PARTICULARS OF CONVENTION APPLICATION</b>					
Country	Application Number	Filing date	Name of the applicant	Title of the invention	IPC (as classified in the convention country)
<b>9. IN CASE OF PCT NATIONAL PHASE APPLICATION, PARTICULARS OF INTERNATIONAL APPLICATION FILED UNDER PATENT CO-OPERATION TREATY (PCT)</b>					
International application number			International filing date		
<b>10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16, PARTICULARS OF ORIGINAL (FIRST) APPLICATION</b>					
Original (first) application No.			Date of filing of original (first) application		
<b>11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54, PARTICULARS OF MAIN APPLICATION OR PATENT</b>					
Main application/patent No.			Date of filing of main application		
<b>12. DECLARATIONS</b>					
<p><b>(i) Declaration by the inventor(s)</b></p> <p><b>(In case the applicant is an assignee:</b> the inventor(s) may sign herein below or the applicant may upload the assignment or enclose the assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period).</p> <p>I/We, the above named inventor(s) is/are the true &amp; first inventor(s) for this Invention and declare that the applicant(s) herein is/are my/our assignee or legal representative.</p> <p>(a) Date:</p> <p>(b) Signature(s):</p> <p>(c) Name(s):</p>					

<b>(ii) Declaration by the applicant(s) in the convention country</b>			
<p><b>(In case the applicant in India is different than the applicant in the convention country:</b> the applicant in the convention country may sign herein below or applicant in India may upload the assignment from the applicant in the convention country or enclose the said assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period)</p> <p>I/We, the applicant(s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.</p> <p>Date:</p> <p>Signature(s):</p> <p>Name(s) of the signatory:</p>			
<p><b>(iii) Declaration by the applicant(s)</b></p> <p><b>I/We the applicant(s) hereby declare(s) that: -</b></p> <ul style="list-style-type: none"> <li>( ) I am/ We are in possession of the above-mentioned invention.</li> <li>( ) The provisional/complete specification relating to the invention is filed with this application.</li> <li>( ) The invention as disclosed in the specification uses the biological material from India and the necessary permission from the competent authority shall be submitted by me/us before the grant of patent to me/us.</li> <li>( ) There is no lawful ground of objection(s) to the grant of the Patent to me/us.</li> <li>( ) I am/we are the true &amp; first inventor(s).</li> <li>( ) I am/we are the assignee or legal representative of true &amp; first inventor(s).</li> <li>( ) The application or each of the applications, particulars of which are given in Paragraph-8, was the first application in convention country/countries in respect of my/our invention(s).</li> <li>( ) I/We claim the priority from the above mentioned application(s) filed in convention country/countries and state that no application for protection in respect of the invention had been made in a convention country before that date by me/us or by any person from which I/We derive the title.</li> <li>( ) My/our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in Paragraph-9.</li> <li>( ) The application is divided out of my /our application particulars of which is given in Paragraph-10 and pray that this application May be treated as deemed to have been filed on 14/09/2024 under section 16 of the Act.</li> <li>( ) The said invention is an improvement in or modification of the invention particulars of which are given in Paragraph-11</li> </ul>			
<b>13. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION</b>			
a. Form 2			
<b>Item</b>	<b>Details</b>	<b>Fee</b>	<b>Remarks</b>
Complete/provisional specification#	No. of pages: 4		
No. of Claim(s)	No. of claims: 7 and No. of pages: 1		
Abstract	No. of pages: 1		
No. of Drawing(s)	No. of drawings: 6 and No. of pages: 3		
Total	9		

# In case of a complete specification, if the applicant desires to adopt the drawings filed with his provisional specification as the drawings or part of the drawings for the complete specification under rule 13(4), the number of such pages filed with the provisional specification are required to be mentioned here.

- b. Complete specification (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).
- c. Sequence listing in electronic form
- d. Drawings (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).
- e. Priority document(s) or a request to retrieve the priority document(s) from DAS (Digital Access Service) if the applicant had already requested the office of first filing to make the priority document(s) available to DAS.
- f. Translation of priority document/Specification/International Search Report/International Preliminary Report on Patentability.
- g. Statement and Undertaking on Form 3
- h. Declaration of Inventorship on Form 5
- i. Power of Authority
- j. ....

**Total fee Rs** \_\_\_\_\_ **in Cash / Banker's Cheque / Bank Draft bearing No** \_\_\_\_\_  
**..... Date** \_\_\_\_\_ **on** \_\_\_\_\_  
 \_\_\_\_\_ **Bank.**

I/We hereby declare that to the best of my/our knowledge, information, and belief the fact and matters slated here in are correct and I/We request that a patent may be granted to me/us for the said invention.

Dated this 22th day of April 2025.

Signature:

To,  
The Controller of Patents,  
The Patent Office, at Chennai

Note:-

- \* Repeat boxes in case of more than one entry.
- \* To be signed by the applicant(s) or by authorized registered patent agent otherwise where mentioned.
- \* Tick ( )/cross (X) whichever is applicable/not applicable in declaration in paragraph- 12.
- \* Name of the inventor and applicant should be given in full, family name in the beginning.
- \* Strike out the portion which is/are not applicable.
- \* For fee: See First Schedule”

**FORM 2**  
**THE PATENTS ACT, 1970 (39 of 1970)**  
**&**  
**The Patents Rules, 2003 PROVISIONAL/COMPLETE**  
**SPECIFICATION**  
**(See section 10 and rule 13)**

**1. TITLE OF THE INVENTION**

CYBERCLOAK

**2. APPLICANT(S)**

APPLICANTS NAME	NATIONALITY	ADDRESS
Rohit D Rokesh Varma V Sanjay S Shreyas S	Indian Indian Indian Indian	Sri Shakthi Institute of Engineering and Technology, Sri Shakthi Nagar, L&T By-pass, Chinniyampalayam Post, Coimbatore - 641062

**3. PREAMBLE TO THE DESCRIPTION**

PROVISIONAL	COMPLETE
The following specification describes the invention.	The following specification particularly describes the invention and how it is to be performed.

**4. DESCRIPTION**

Refer the attachments

**5. CLAIMS**

Refer the attachments

**6. DATE AND SIGNATURE**

Dated this 22st day of April 2025

## **7.ABSTRACT OF THE INVENTION**

Refer the attachments

### **Note:-**

- \*Repeat boxes in case of more than one entry.**
- \*To be signed by the applicant(s) or by an authorized registered patent agent.**
- \*Name of the applicant should be given in full, family name in the beginning.**
- \*Complete address of the applicant should be given stating the postal index no./code, state and country.**
- \*Strike out the column(s) which is/are not applicable.**

<b>1. Name, address and nationality of quest the applicant(s).</b>	I / We Rohit D, Rakesh Varma V, Sanjay S Shreyas S.
<b>2. To be signed by the applicant or his authorized registered patent agent.</b>	here by request for early publication of my four application for Patent No                                  dated                                  under section 11A (2) of the Act.  Dated this 4 <sup>th</sup> day of May 2024
<b>3. Name of the natural person who m has signed</b>	Signature.          To The Controller of Patents, The Patent Office, Chennai.

**Note: - For fee: See First Schedule**

# **Cyber Cloak**

## **Field of Invention**

The present invention pertains to the field of cybersecurity and internet privacy, focusing on creating an advanced, multi-tiered system to ensure secure and anonymous internet browsing. Specifically, it relates to a novel system and method for providing secure virtual private network (VPN) access through a specialized software application named Cyber Cloak. This system integrates a combination of VPN technology, real-time vulnerability scanning, and dynamic IP management to enhance user privacy and protect against cyber threats. The invention aims to provide seamless and effective anonymity by masking the user's IP address, securing internet connections, and preventing unauthorized access to sensitive data. Moreover, it features robust vulnerability scanning capabilities, making it an ideal solution for users seeking advanced security and privacy while accessing the internet. This system is designed to be intuitive, user-friendly, and highly efficient, catering to a wide range of use cases from general users to professionals and businesses that require secure network connections.

## **Background of Invention**

The internet has become an essential part of our daily lives, providing convenience and connectivity. However, with the increased use of the internet for personal, professional, and financial activities, the risks to privacy and data security have significantly escalated. Cyberattacks, including hacking, identity theft, phishing, and online surveillance, are now more frequent and sophisticated, putting users' sensitive information at constant risk. This has raised the demand for tools that protect user privacy and safeguard data during online activities, leading to the growing adoption of Virtual Private Networks (VPNs).

While VPNs offer privacy benefits, many existing solutions suffer from shortcomings such as slow performance, limited server availability, or overly complex user interfaces, which make it difficult for individuals to benefit fully from the technology. Additionally,



many VPN services focus mainly on masking the user's IP address without providing any tools for real-time vulnerability scanning or protection against potential breaches. Furthermore, the inability to dynamically change the IP address while connected to a VPN leaves users vulnerable to tracking mechanisms that undermine the privacy protections offered by traditional VPNs. Thus, a new solution is required to address these gaps in security and improve both user privacy and safety online.

Cyber Cloak presents an innovative solution to these challenges. By combining VPN encryption with enhanced security measures such as real-time vulnerability scanning, Cyber Cloak protects users from both external cyber threats and internal security weaknesses. Additionally, it introduces the ability to dynamically change the user's IP address, even while connected to a VPN, ensuring maximum anonymity and making it difficult for malicious actors to trace the user's online activity. Through this combination of features, Cyber Cloak provides a comprehensive, user-friendly security solution that not only maintains privacy but also proactively prevents cyber threats in a seamless and efficient manner.

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## **Summary of Invention**

The invention provides an advanced, secure, and efficient solution for automating VPN connections and IP changes to enhance user privacy and internet security. By integrating vulnerability scanning and IP address modification features, it enables seamless switching of network identity to prevent tracking and enhance anonymity. The system utilizes a robust backend framework for managing VPN configurations, real-time log monitoring, and improved network performance, all within a user-friendly interface. This invention streamlines the process of maintaining secure, encrypted internet connections while offering flexibility and enhanced user control over their digital presence.

## **Brief Description of the Visual Representations**

Figure 1: Image from Demo version with the system's IP fetched automatically

Figure 2: Scanned report for Open ports in the system in demo version

Figure 3, Figure 4: VPN connectivity in Demo version

Figure 5: Scan Open ports output from the Premium Lite version with help of Nmap

Figure 6: Logging System that automatically stores the details of action in logs\activity.txt

## **Detailed description of the Visual Representations**

The attached images provide a visual overview of the Cyber Cloak application's interface and functionality. These include screenshots of the application's main dashboard, console log outputs, and log file entries stored within the system. The visuals reflect key features of the application such as secure VPN connection management, real-time port scanning, vulnerability detection, live logging, and system-level IP protection. Each image captures a critical functional component of the project, offering insights into the application's workflow and its user-focused design.

1. VPN Integration – Establishes secure internet connection using OpenVPN with one-click connect and disconnect.
2. Real-time Log Console – Displays live VPN logs and system activities within the application.
3. Vulnerability Scanner – Performs network vulnerability assessment using Nmap integration.
4. Port Scanner – Scans and lists open ports on the connected network or host.
5. Activity Logging – Saves logs in an external text file for post-analysis and auditing.
6. IP Management Module – Detects and potentially switches system IP for anonymization.
7. Clean and Lightweight UI – Intuitive, responsive user interface for seamless interaction.
8. Folder Protection Mechanism – Prevents unauthorized modifications to critical folders like config, logs, etc.
9. Installer Support – Generates a one-click executable installer for easy deployment.
10. Modular Design – Easily scalable and maintainable architecture for future upgrades.

## **Claims**

### **We claim that,**

1. A system for secure internet connection via OpenVPN, comprising a user interface that facilitates seamless VPN connection and disconnection, including real-time log monitoring and user feedback.
2. A vulnerability scanning method integrated with the VPN system, wherein a port scanner and vulnerability assessment tool are used to identify potential security weaknesses in a connected network.
3. A method for real-time log display within an application that shows VPN connection status, network activity, and system processes, enabling users to monitor their session in real time.
4. A system for dynamic IP management, wherein the application detects and modifies the system's IP address when connected to a VPN server, providing anonymity and enhanced security for users.
5. A folder protection mechanism, wherein critical application folders such as config and logs are made read-only, preventing unauthorized modification while allowing users to access them for inspection
6. A modular design architecture for the application, enabling scalability and maintainability, allowing the seamless addition of new features such as advanced scanning or IP management without disrupting existing functionalities.
7. A customizable and user-friendly installer that packages the VPN application along with necessary configuration files and logs into a single executable, simplifying installation and deployment on a user's system.

## **Abstract**

This project focuses on the development of a robust VPN application that prioritizes both privacy and ease of use. The application offers seamless VPN connection management, including a dynamic IP change feature, to ensure enhanced security and anonymity for its users. It includes integrated vulnerability scanning, which helps users monitor their network security, and features real-time log monitoring for troubleshooting. The system is designed with an intuitive graphical user interface (GUI) for effortless operation and management of VPN connections. Additionally, it incorporates automatic configuration handling and offers protection for log files, ensuring that users have a safe and smooth experience while maintaining optimal control over their network environment. The project aims to provide a reliable solution for personal and corporate network privacy management.

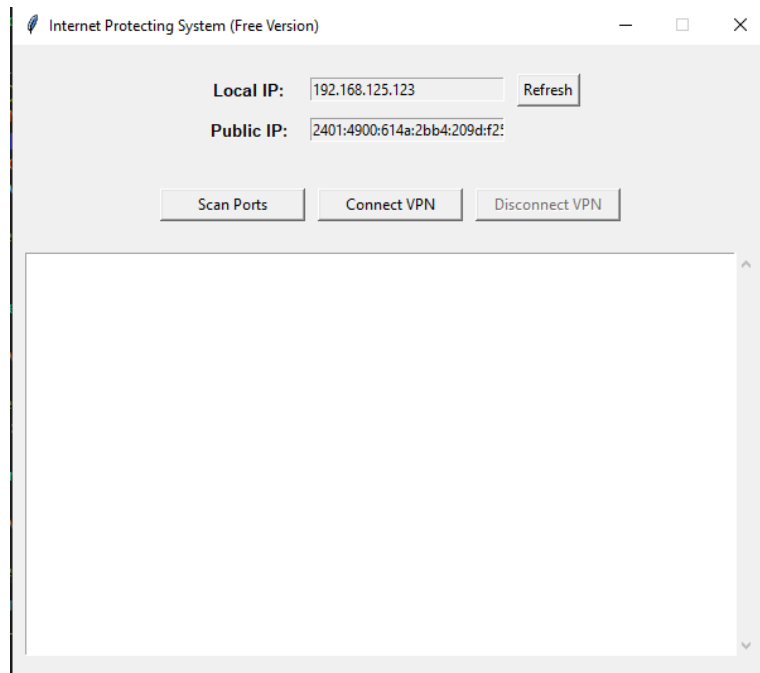


Figure 1: Image from Demo version with the system's IP fetched automatically

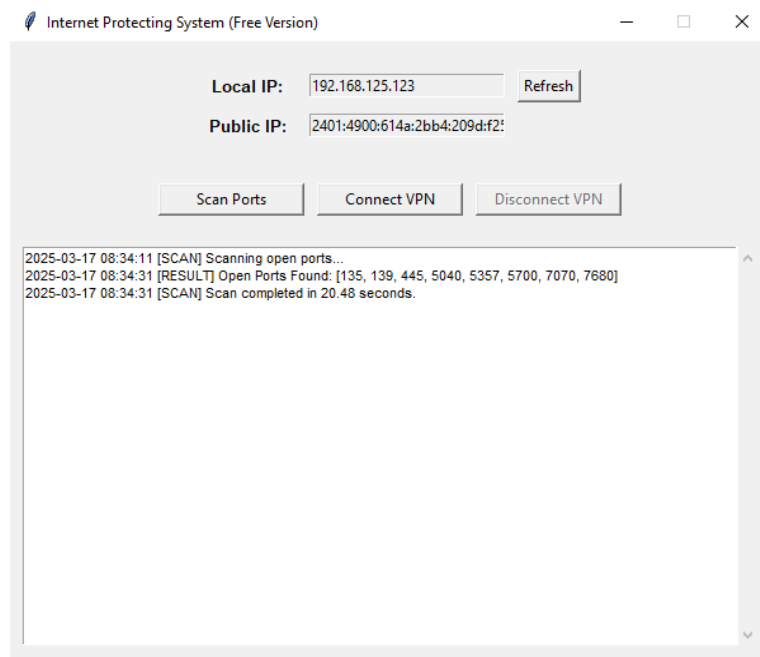
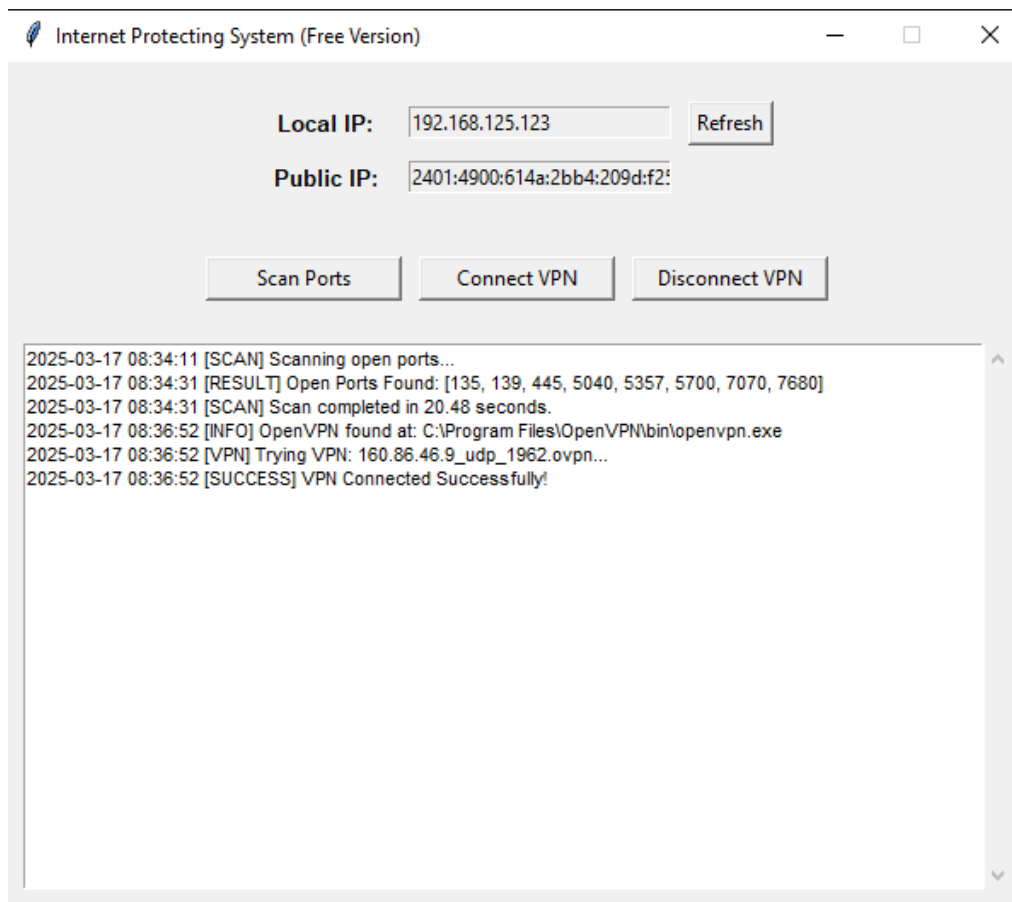


Figure 2: Scanned report for Open ports in the system in demo version



```

2025-03-17 08:37:05 C:\WINDOWS\system32\route.exe ADD 160.86.46.9 MASK 255.255.255.255 192.168.125.51
2025-03-17 08:37:05 ERROR: route addition failed using CreateIpForwardEntry: Access is denied. [status=5 if_index=14]
2025-03-17 08:37:05 Route addition fallback to route.exe
2025-03-17 08:37:05 env_block: add PATH=C:\WINDOWS\System32;C:\WINDOWS;C:\WINDOWS\System32\Wbem
2025-03-17 08:37:05 ERROR: Windows route add command failed [adaptive]: returned error code 1
2025-03-17 08:37:05 C:\WINDOWS\system32\route.exe ADD 0.0.0.0 MASK 128.0.0.0 10.211.1.222
2025-03-17 08:37:05 ERROR: route addition failed using CreateIpForwardEntry: Access is denied. [status=5 if_index=10]
2025-03-17 08:37:05 Route addition fallback to route.exe
2025-03-17 08:37:05 env_block: add PATH=C:\WINDOWS\System32;C:\WINDOWS;C:\WINDOWS\System32\Wbem
2025-03-17 08:37:05 ERROR: Windows route add command failed [adaptive]: returned error code 1
2025-03-17 08:37:05 C:\WINDOWS\system32\route.exe ADD 128.0.0.0 MASK 128.0.0.0 10.211.1.222
2025-03-17 08:37:05 ERROR: route addition failed using CreateIpForwardEntry: Access is denied. [status=5 if_index=10]
2025-03-17 08:37:05 Route addition fallback to route.exe
2025-03-17 08:37:05 env_block: add PATH=C:\WINDOWS\System32;C:\WINDOWS;C:\WINDOWS\System32\Wbem
2025-03-17 08:37:05 ERROR: Windows route add command failed [adaptive]: returned error code 1
2025-03-17 08:37:05 Initialization Sequence Completed

```

Figure 3, Figure 4: VPN connectivity in Demo version

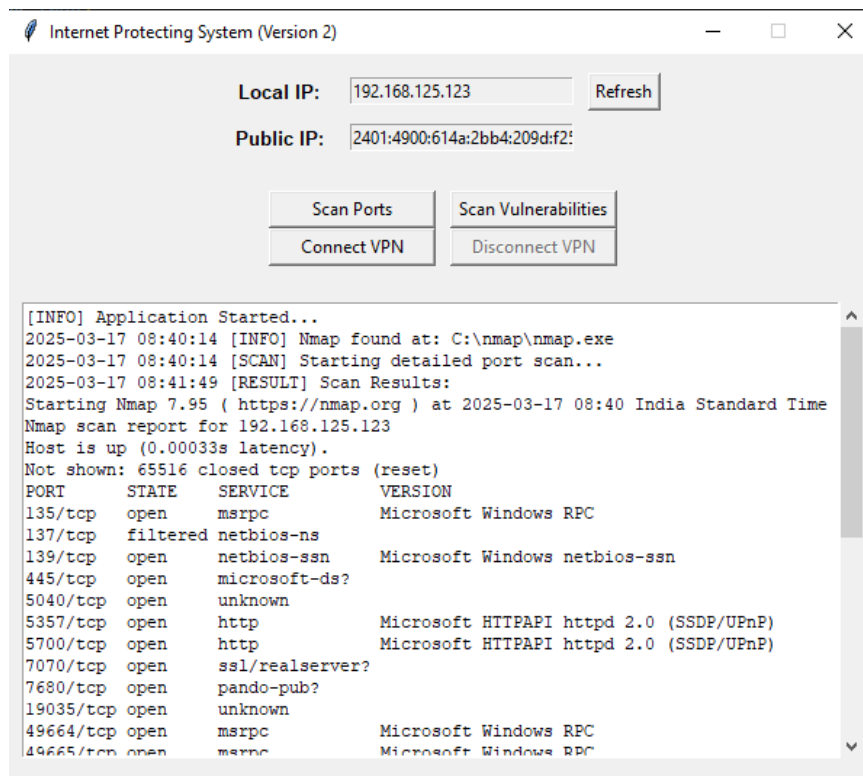


Figure 5: Scan Open ports output from the Premium Lite version with help of Nmap

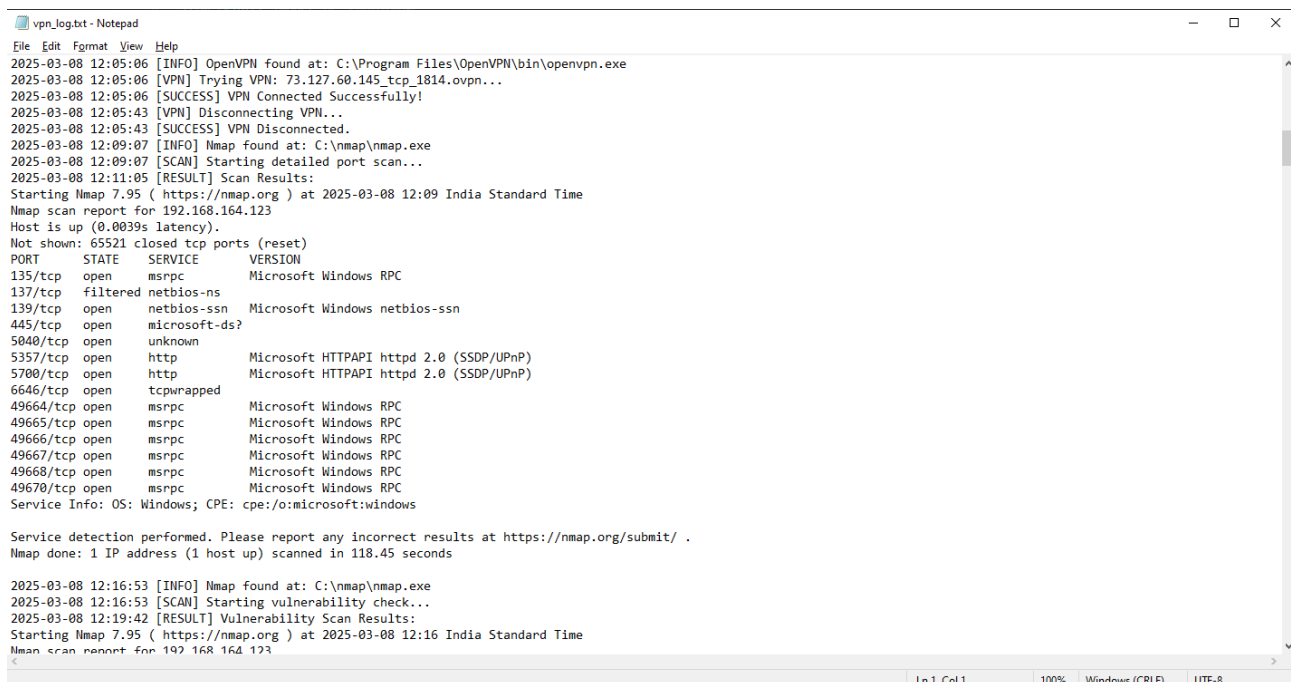


Figure 6: Logging System that automatically stores the details of action in logs\activity.txt