

Pyhton Network Scanner

This Python-based **network scanner** is a powerful tool for network administrators and cybersecurity professionals to **analyze and manage local networks**. The program performs **host discovery, port scanning, ARP spoofing, and anomaly detection**, providing detailed insights into connected devices. It utilizes **ARP requests and optional Nmap integration** to identify active hosts, extracting their **IP addresses, MAC addresses, manufacturers, hostnames, and operating systems**. A **multi-threaded port scanner** detects open ports, ensuring efficient scanning without UI freezing.

Additionally, the tool includes **ARP spoofing capabilities**, allowing users to **disconnect unauthorized devices** while providing a mechanism to **restore the ARP table** and unblock devices. An **anomaly detection system** flags suspicious activities such as duplicate MAC addresses and unauthorized access. The **graphical interface (Tkinter & CustomTkinter)** presents real-time scan results and device details, making network monitoring intuitive. This project serves as a **valuable asset for security auditing, network troubleshooting, and ethical hacking research**.