**Network Scanning Summary**

**Name of Candidate:** Aditya Choudhari

**Date and time of execution:** 08/06/2025 Time 10:00 am

**Your Learnings:** Nmap learning, error handling, Wireshark handling, Network analysing

**Challenges faced during assignment:** Facing problems in detection of OS. Easily detected hosts. Problem faces in analysing traffics

**Objective:-**
The objective of this project was to identify active hosts, scan for open ports, determine services and OS information, and analyze network traffic using various tools on a home router setup

**Tools Used:**

- Nmap
- Wireshark
- Kali Linux (via VMWare with Bridged Adapter)
- Terminal commands for routing/interface details

**Network Range:**

- Target: 192.168.0.0/24
- Default Gateway: 192.168.0.1
- Kali IP: 192.168.0.117

**Live Hosts Detected:**

| IP Address | Device Type | OS / Details | Open Ports |
|---|---|---|---|
| 192.168.0.100 | Media device (TV?) | OS not detected | None |
| 192.168.0.101 | PC or Xbox | Windows 10/11/Xbox/NTI | None |
| 192.168.0.104 | Phone (Apple) | iOS 15.X | 49152, 62078 (tcpwrapped) |
| 192.168.0.108 | Unknown | OS fingerprint too broad | None |
| 192.168.0.109 | Phone (Android?) | OS not specific, Port 5060 filtered (SIP) | 5060 (filtered) |
| 192.168.0.113 | Unknown | OS not specific | None |
| 192.168.0.118 | Laptop / Intel device | OS not detected | None |

**Port & Service Findings:**

- **192.168.0.100** – All 1000 ports closed

- **192.168.0.101** – All ports closed; detected as Windows 10/11 or Xbox
- **192.168.0.104** – iOS 15.x; ports 49152/tcp and 62078/tcp open
- **192.168.0.109** – Port 5060/tcp (SIP) filtered; VoIP device (Vivo)
- **192.168.0.108/110/113/118** – All ports closed or filtered

**Wireshark Capture Summary:**

- Detected ARP scans for host discovery
- Multicast DNS (mDNS) & SSDP (common with mobile/IoT)
- No evidence of malicious traffic

**Conclusion:**

- Home network appears secure; most devices have no exposed services
- A single device (likely a phone) exposes SIP, potentially used for VoIP
- Network hygiene overall is good
- Monitoring tools were successfully deployed and used

**GITHUB link :-** https://github.com/adichoudhari/network-scan-report.git