

# FUTURE\_CS\_03

## Wi-Fi Security Assessment

### Objective:

To assess the security of the current Wi-Fi network for potential vulnerabilities including weak passwords, open ports, and unauthorized devices.

### Environment Details:

- **Network Type:** Wifi Router
- **Encryption:** WPA2-PSK
- **Assessment Device:** Kali Linux (No external Wi-Fi adapter)

### Tools Used:

- nmap
- netdiscover
- Wireshark

### Findings:

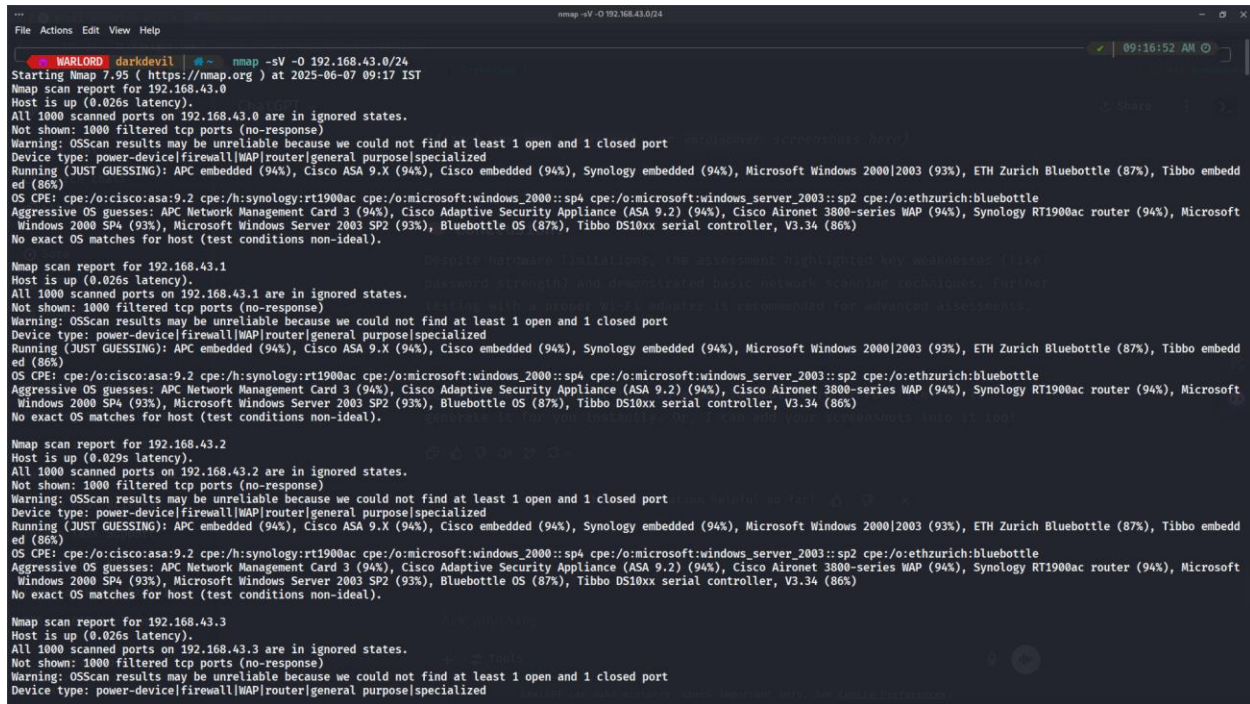
<b>Password</b>	Weak password used for hotspot (12345678)
<b>Encryption</b>	WPA2-PSK
<b>Open Ports</b>	No open ports found on gateway (nmap -sV 192.168.43.1)
<b>Connected Devices</b>	2 devices found using nmap and netdiscover
<b>Unauthorized Devices</b>	No unknown devices detected

## Recommendations:

- Use a **strong password** (16+ characters with mix of symbols).
- Regularly **monitor connected devices** with tools like nmap.
- If supported, enable **MAC address filtering** on the hotspot.
- Avoid using default or predictable passwords.

## Conclusion:

Despite hardware limitations, the assessment highlighted key weaknesses (like password strength) and demonstrated basic network scanning techniques. Further testing with a proper Wi-Fi adapter is recommended for advanced assessments.



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