Network Threat Monitoring System

Sai Prathik, Nikil Pinto, Vidushi Razdan, Prof. Pawankumar Fakatkar

Department of Electronics Engineering and Sardar Patel Institute of Technology, Andheri (W)

Objectives

The objectives of the project, Network Threat Monitoring System are articulated based on requirements and required goals

- The overall goal of this project is to experience aspects of information security using the Raspberry Pi and the Kali Linux OS. This Project will consist of constructing a hacking arsenal and penetration testing, using open source software

- The Project will also investigate and demonstrate the working of the versatile tool Aircrack-ng to Monitor, Attack and Crack keys of Wireless Networks.

- To make a complete auditing device where the consumers have way to assess the security of a Wireless Network prior to interacting with it.

- The overall objective of this project is to make cashless transactions over a Wireless Network more secure and efficient.

Introduction

This project focuses on exploiting vulnerabilities in web applications and using those vulnerabilities for privilege escalation. Despite advancement in computer firewalls and intrusion detection systems, wired and wireless networks are experiencing increasing threat to data theft and violations through personal and corporate computers and networks.
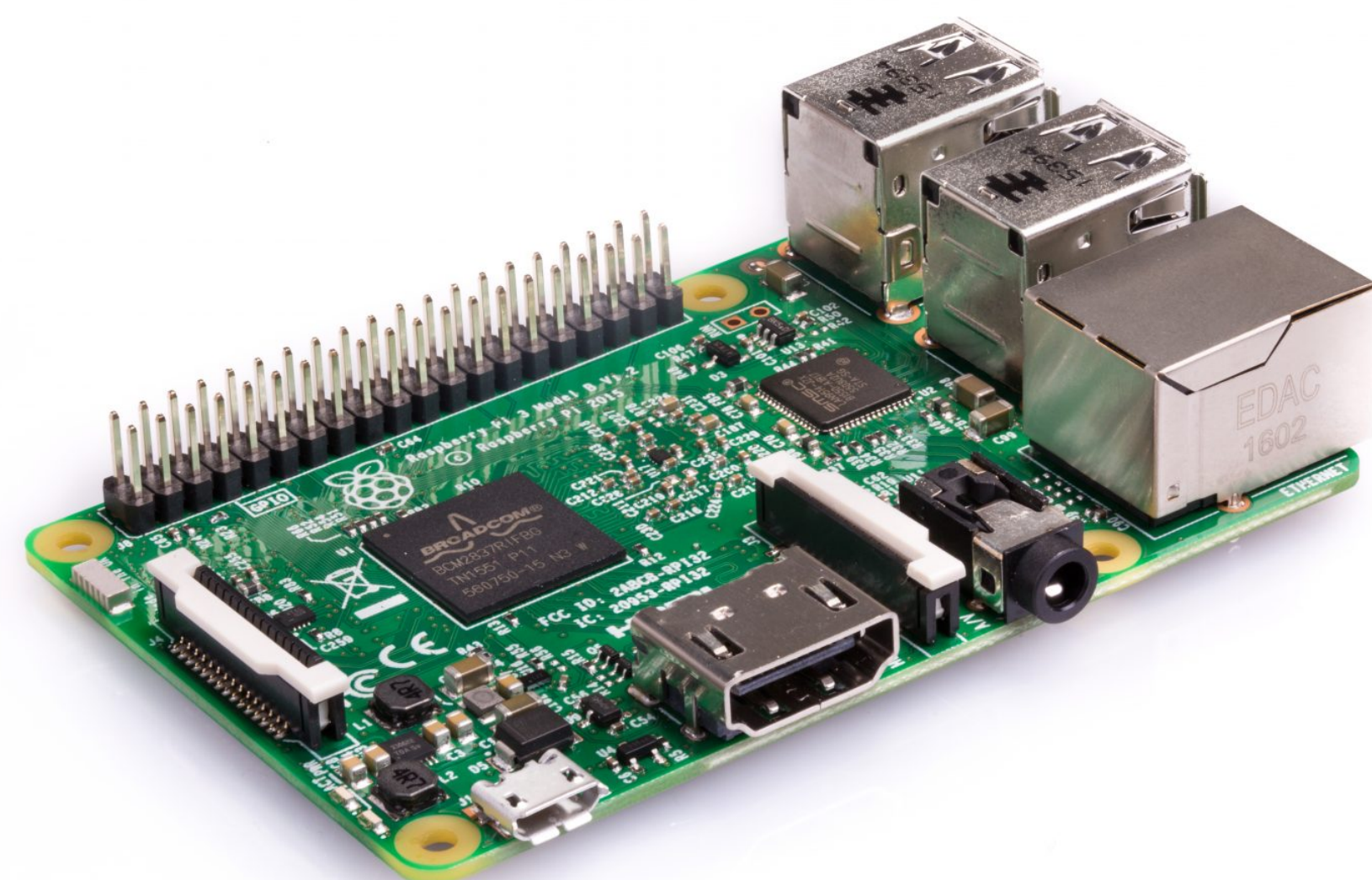

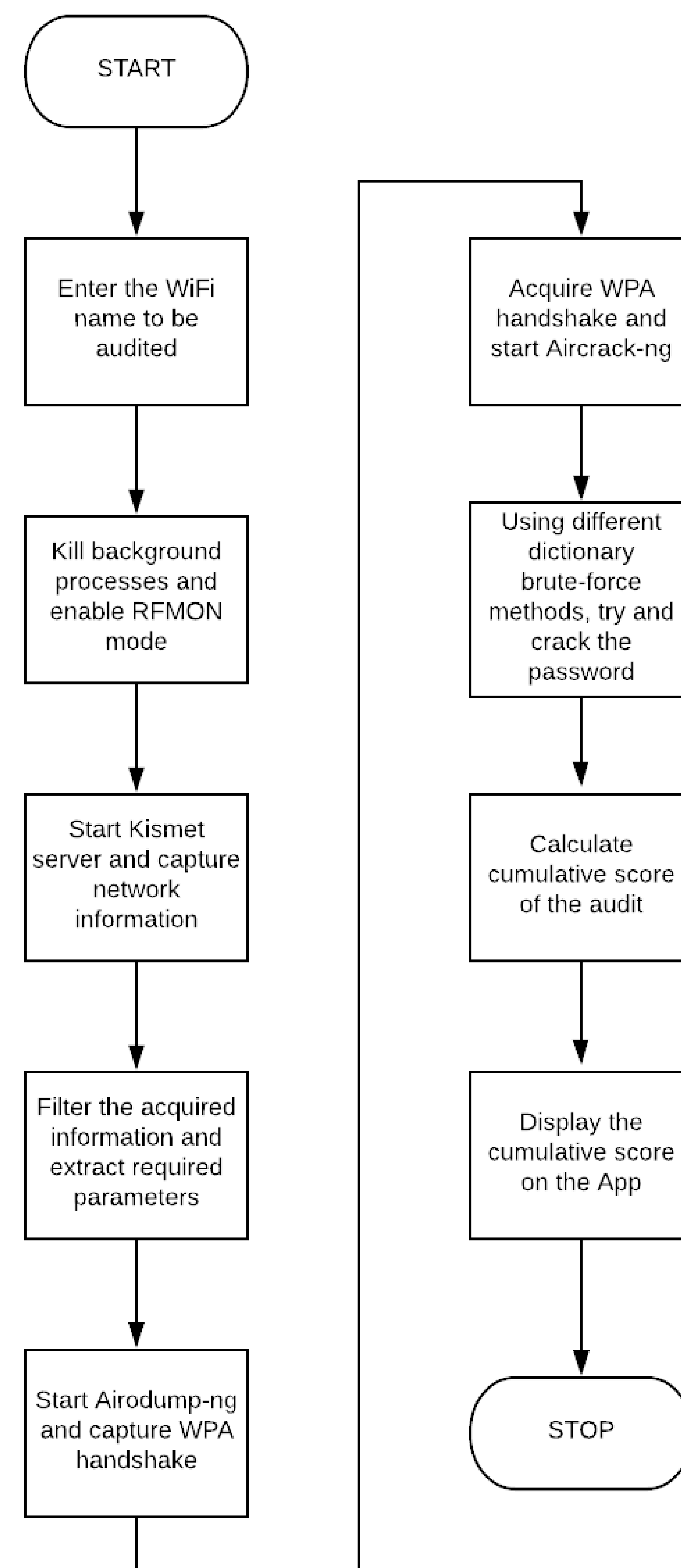Figure: Raspberry Pi3

Methodology

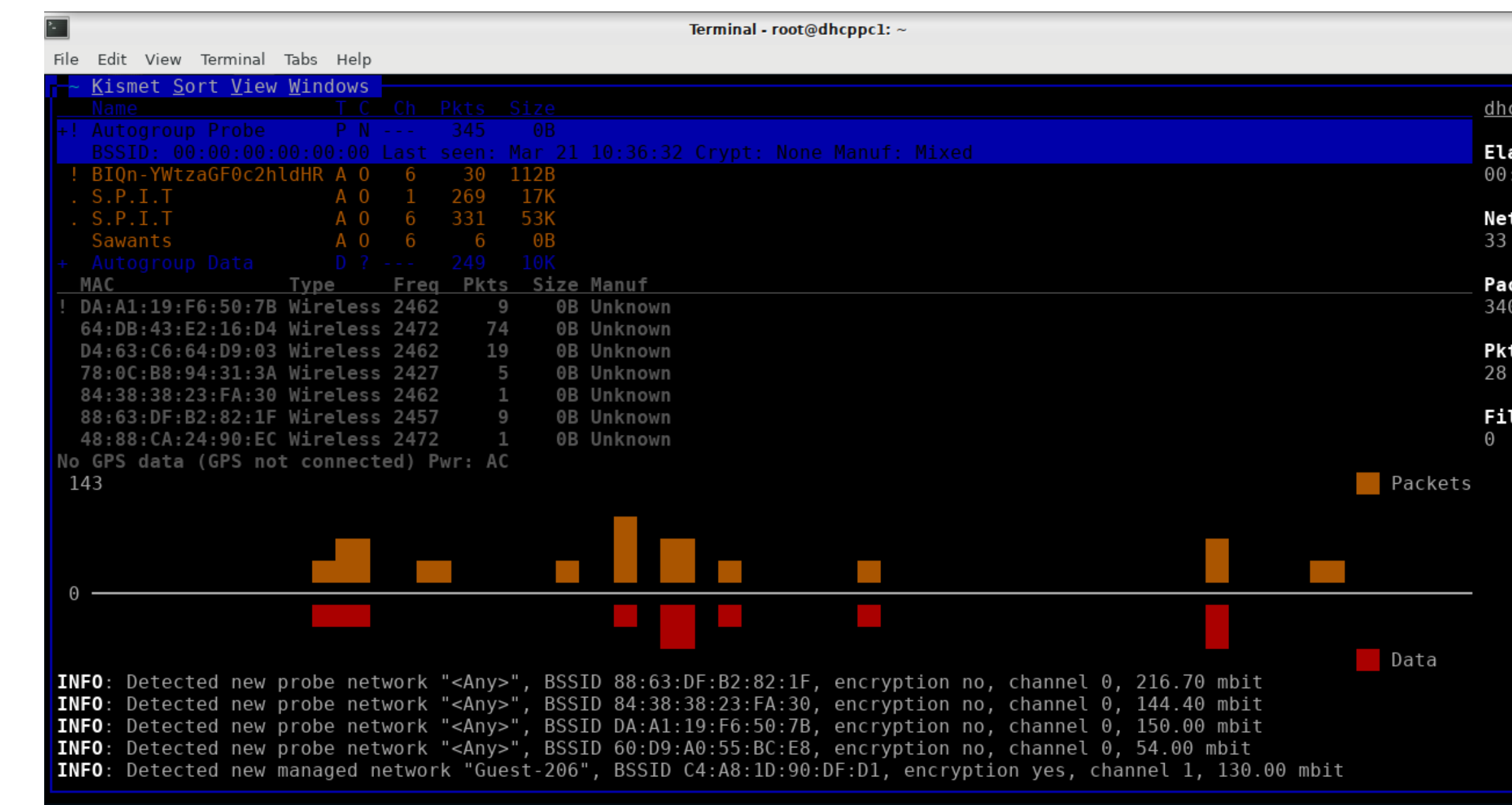- **System Flow Diagram**

Figure: Flow Chart of System

Figure: Kismet GUI

Results
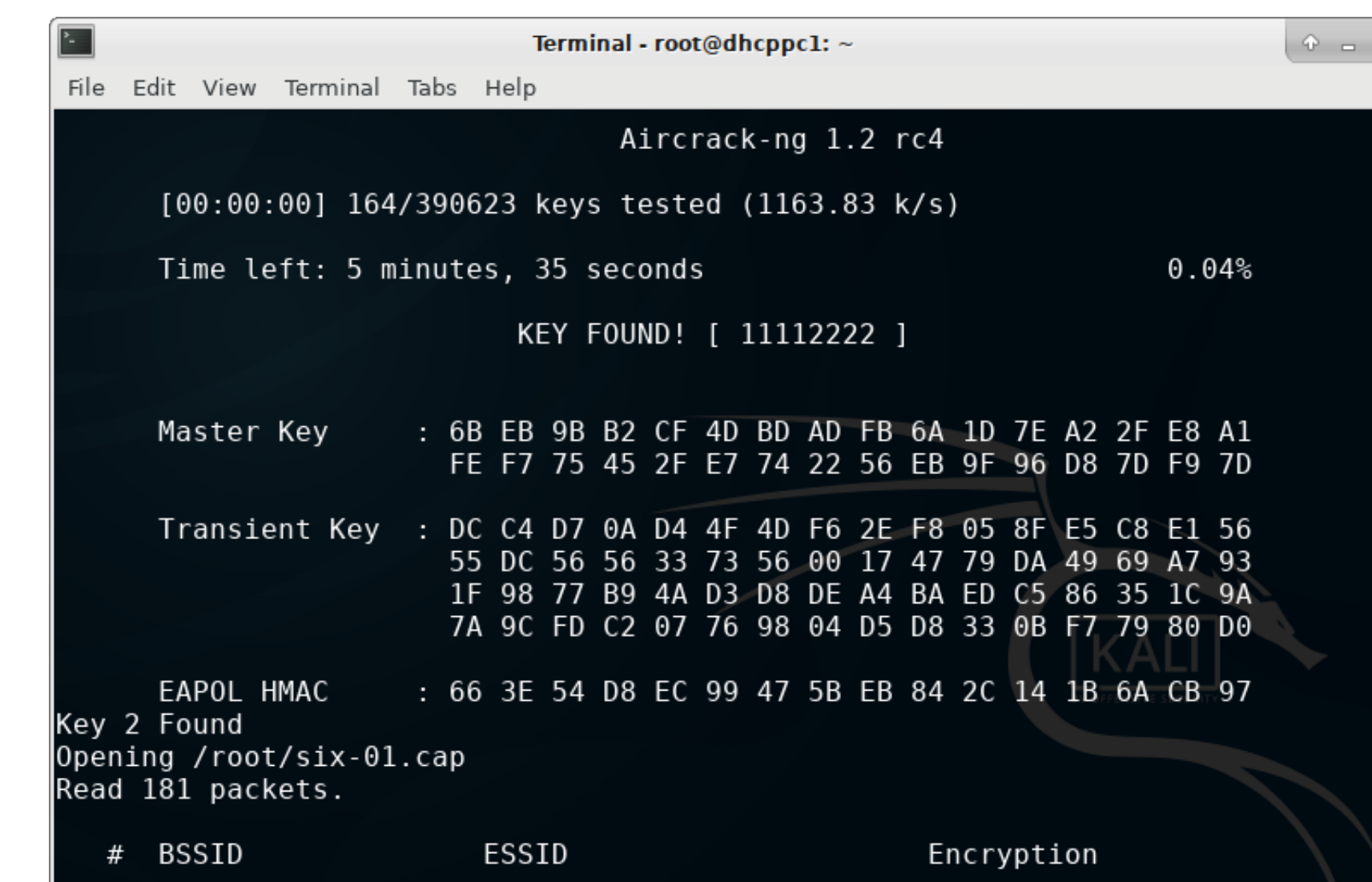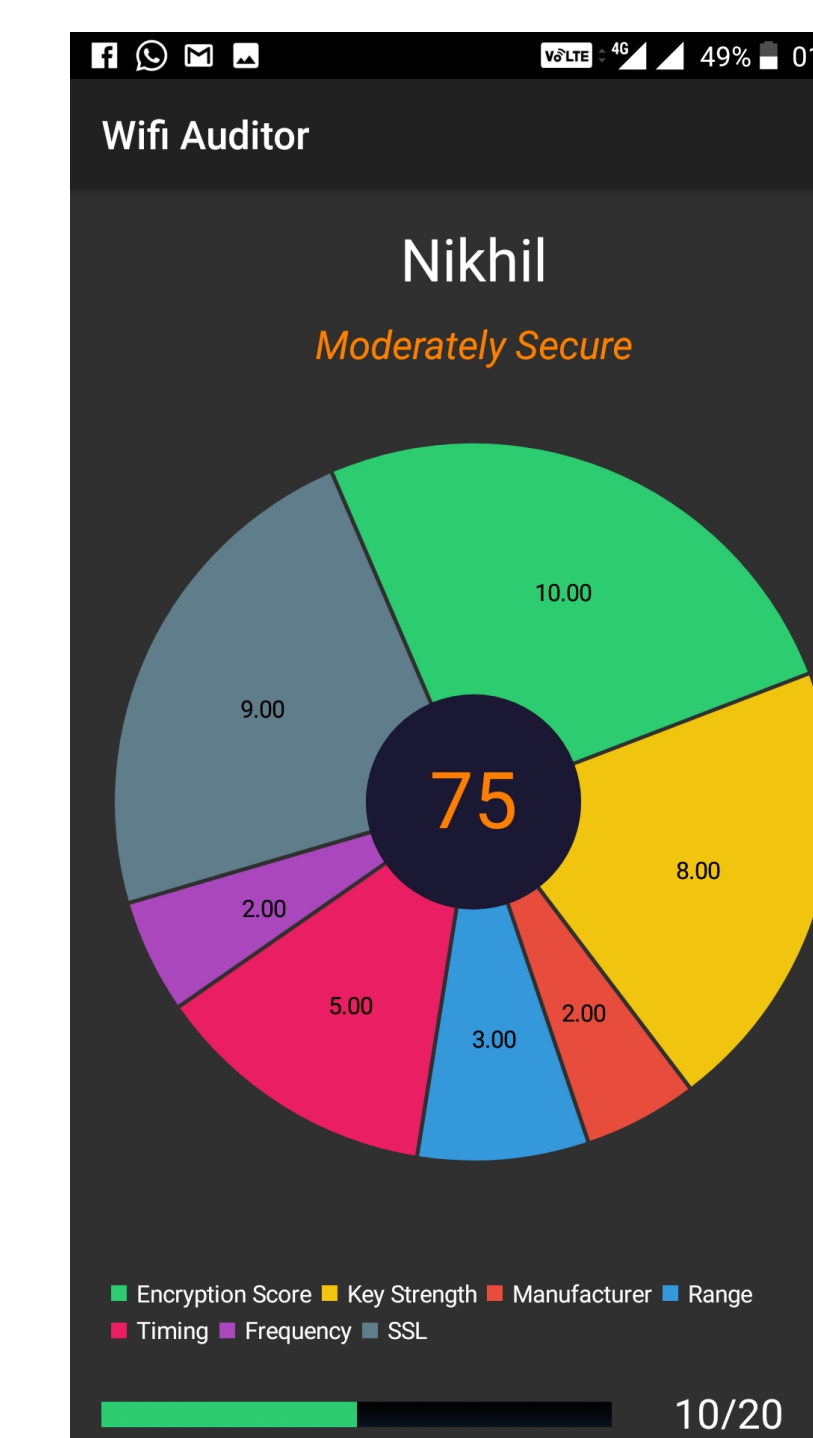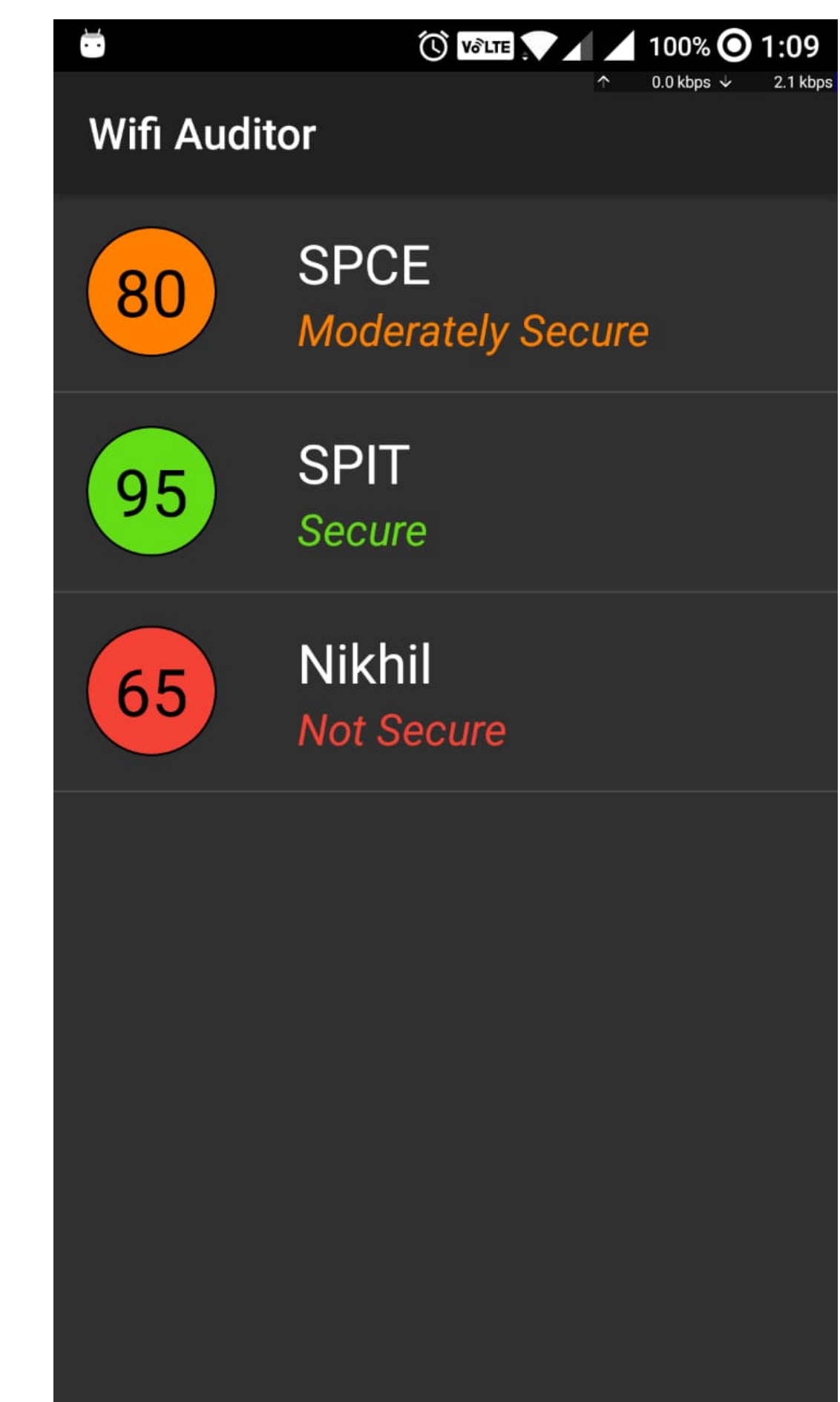
- **Key Cracked**

Figure: WPA Key Cracked

- **Consumer App Screen**

Survey of Previous Network Audits

Conclusion

As we saw that Network security helps us protect proprietary information from attack and network security threats are a big problem for people and organizations all over the world and if our wireless network is open or Not-Secure, an intruder can easily gain access to our internal network resources without our consent and can do illegal acts.

Bibliography

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Acknowledgements