HoneyTrap: Lightweight Honeypot Setup on Kali Linux

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Abstract

This paper presents the setup and deployment of **HoneyTrap**, a lightweight honeypot solution on Kali Linux. Honeypots are security mechanisms designed to detect, deflect, and analyze cyber threats by mimicking vulnerable systems. HoneyTrap provides real-time intrusion detection and logging, making it an effective tool for cybersecurity professionals.

We describe the installation process, configuration options, and best practices for deployment in different environments. Key features include protocol emulation, logging capabilities, and integration with security monitoring tools. The study highlights practical use cases, including penetration testing and network security monitoring.

Our findings demonstrate that HoneyTrap effectively identifies and records various attack vectors with minimal system overhead. This work contributes to the field of cybersecurity by offering a practical, easy-to-deploy honeypot solution for proactive threat intelligence gathering.

Keywords: Honeypot, Cybersecurity, Intrusion Detection, Kali Linux, Threat Analysis.