

for pentesting. You'll then progress to passive reconnaissance with open source intelligence and active reconnaissance of the external and internal infrastructure. You'll also focus on how to select, use, customize, and interpret the results from different vulnerability scanners, followed by examining specific routes to the target, which include bypassing physical security and the exfiltration of data using a variety of techniques. You'll discover concepts such as social engineering, attacking wireless networks, web services, and embedded devices. Once you are confident with these topics, you'll learn the practical aspects of attacking user client systems by backdooring with fileless techniques, followed by focusing on the most vulnerable part of the network - directly attacking the end user. By the end of this book, you'll have explored approaches for carrying out advanced pentesting in tightly secured environments, understood pentesting and hacking techniques employed on embedded peripheral devices. What you will learn Configure the most effective Kali Linux tools to test infrastructure security Employ stealth to avoid detection in the infrastructure being tested Recognize when stealth attacks are being used against your infrastructure Exploit networks and data systems using wired and wireless networks as well as web services Identify and download valuable data from target systems Maintain access to compromised systems Use social engineering to compromise the weakest part of the network - the end users Who this book is for This third edition of Mastering Kali Linux for Advanced Penetration Testing is for you if you are a security analyst, pentester, ethical hacker, IT professional, or security consultant wanting to maximize the success of your infrastructure testing using some of the advanced features of Kali Linux. Prior exposure of penetration testing and ethical hacking basics will be helpful in making the most out of this book.

Kali Linux - An Ethical Hacker's Cookbook-Himanshu Sharma 2019-03-29 Discover end-to-end penetration testing solutions to enhance your ethical hacking skills Key Features Practical recipes to conduct effective penetration testing using the latest version of Kali Linux Leverage tools like Metasploit, Wireshark, Nmap, and more to detect vulnerabilities with ease Confidently perform networking and application attacks using task-oriented recipes Book Description Many organizations have been affected by recent cyber events. At the current rate of hacking, it has become more important than ever to pentest your environment in order to ensure advanced-level security. This book is packed with practical recipes that will quickly get you started with Kali Linux (version 2018.4 / 2019), in addition to covering the core functionalities. The book will get you off to a strong start by introducing you to the installation and configuration of Kali Linux, which will help you to perform your tests. You will also learn how to plan attack strategies and perform web application exploitation using tools such as Burp and JexBoss. As you progress, you will get to grips with performing network exploitation using Metasploit, Sparta, and Wireshark. The book will also help you delve into the technique of carrying out wireless and password attacks using tools such as Patator, John the Ripper, and aircrack-ng. Later chapters will draw focus to the wide range of tools that help in forensics investigations and incident response mechanisms. As you wrap up the concluding chapters, you will learn to create an optimum quality pentest report. By the end of this book, you will be equipped with the knowledge you need to conduct advanced penetration testing, thanks to the book's crisp and task-oriented recipes. What you will learn Learn how to install, set up and customize Kali for pentesting on multiple platforms Pentest routers and embedded devices Get insights into fiddling around with software-defined radio Pwn and escalate through a corporate network Write good quality security reports Explore digital forensics and memory analysis with Kali Linux Who this book is for If you are an IT security professional, pentester, or security analyst who wants to conduct advanced penetration testing techniques, then this book is for you. Basic knowledge of Kali Linux is assumed.

Beginning Ethical Hacking with Kali Linux-Sanjib Sinha 2018-11-29 Get started in white-hat ethical hacking using Kali Linux. This book starts off by giving you an overview of security trends, where you will learn the OSI security architecture. This will form the foundation for the rest of Beginning Ethical Hacking with Kali Linux. With the theory out of the way, you'll move on to an introduction to VirtualBox, networking, and common Linux commands, followed by the step-by-step procedure to build your own web server and acquire the skill to be anonymous . When you have finished the examples in the first part of your book, you will have all you need to carry out safe and ethical hacking experiments. After an introduction to Kali Linux, you will carry out your first penetration tests with Python and code raw binary packets for use in those tests. You will learn how to find secret directories on a target system, use a TCP client in Python, and scan ports using NMAP. Along the way you will discover effective ways to collect important information, track email, and use important tools such as DMITRY and Maltego, as well as take a look at the five phases of penetration testing. The coverage of vulnerability analysis includes sniffing and spoofing, why ARP poisoning is a threat, how SniffJoke prevents poisoning, how to analyze protocols with Wireshark, and using sniffing packets with Scapy. The next part of the book shows you detecting SQL injection vulnerabilities, using sqlmap, and applying brute force or password attacks. Besides learning these tools, you will see how to use OpenVas, Nikto, Vega, and Burp Suite. The book will explain the information assurance model and the hacking framework Metasploit, taking you through important commands, exploit and payload basics. Moving on to hashes and passwords you will learn password testing and hacking techniques with John the Ripper and Rainbow. You will then dive into classic and modern encryption techniques where you will learn the conventional cryptosystem. In the final chapter you will acquire the skill of exploiting remote Windows and Linux systems and you will learn how to own a target completely. What You Will Learn Master common Linux commands and networking techniques Build your own Kali web server and learn to be anonymous Carry out penetration testing using Python Detect sniffing attacks and SQL injection vulnerabilities Learn tools such as SniffJoke, Wireshark, Scapy, sqlmap, OpenVas, Nikto, and Burp Suite Use Metasploit with Kali Linux Exploit remote Windows and Linux systems Who This Book Is For Developers new to ethical hacking with a basic understanding of Linux programming.

Kali Linux Revealed-Raphaël Hertzog 2017-06-05 Whether you're a veteran or an absolute n00b, this is the best place to start with Kali Linux, the security professional's platform of choice, and a truly industrial-grade, and world-class operating system distribution-mature, secure, and enterprise-ready.

Nmap Network Scanning-Gordon Lyon 2008-01 The official guide to the Nmap Security Scanner, a free and open source utility used by millions of people, suits all levels of security and networking professionals.

Linux Basics for Hackers-OccupyTheWeb 2018-12-04 This practical, tutorial-style book uses the Kali Linux distribution to teach Linux basics with a focus on how hackers would use them. Topics include Linux command line basics, filesystems, networking, BASH basics, package management, logging, and the Linux kernel and drivers. If you're getting started along the exciting path of hacking, cybersecurity, and pentesting, Linux Basics for Hackers is an excellent first step. Using Kali Linux, an advanced penetration testing distribution of Linux, you'll learn the basics of using the Linux operating system and acquire the tools and techniques you'll need to take control of a Linux environment. First, you'll learn how to install Kali on a virtual machine and get an introduction to basic Linux concepts. Next, you'll tackle broader Linux topics like manipulating text, controlling file and directory permissions, and managing user environment variables. You'll then focus in on foundational hacking concepts like security and anonymity and learn scripting skills with bash and Python. Practical tutorials and exercises throughout will reinforce and test your skills as you learn how to: - Cover your tracks by changing your network information and manipulating the rsyslog logging utility - Write a tool to scan for network connections, and connect and listen to wireless networks - Keep your internet activity stealthy using Tor, proxy servers, VPNs, and encrypted email - Write a bash script to scan open ports for potential targets - Use and abuse services like MySQL, Apache web server, and OpenSSH - Build your own hacking tools, such as a remote video spy camera and a password cracker Hacking is complex, and there is no single way in. Why not start at the beginning with Linux Basics for Hackers?

Web Penetration Testing with Kali Linux-Joseph Muniz 2013-09-25 Web Penetration Testing with Kali Linux contains various penetration testing methods using BackTrack that will be used by the reader. It contains clear step-by-step instructions with lot of screenshots. It is written in an easy to understand language which will further simplify the understanding for the user."Web Penetration Testing with Kali Linux" is ideal for anyone who is interested in learning how to become a penetration tester. It will also help the users who are new to Kali Linux and want to learn the features and differences in Kali versus Backtrack, and seasoned penetration testers who may need a refresher or reference on new tools and techniques. Basic familiarity with web-based programming languages such as PHP, JavaScript and MySQL will also prove helpful.

Hands-On AWS Penetration Testing with Kali Linux-Karl Gilbert 2019-04-30 Identify tools and techniques to secure and perform a penetration test on an AWS infrastructure using Kali Linux Key Features Efficiently perform penetration testing techniques on your public cloud instances Learn not only to cover loopholes but also to automate security monitoring and alerting within your cloud-based deployment pipelines A step-by-step guide that will help you leverage the most widely used security platform to secure your AWS Cloud environment Book Description The cloud is taking over the IT industry. Any organization housing a large amount of data or a large infrastructure has started moving cloud-ward — and AWS rules the roost when it comes to cloud service providers, with its closest competitor having less than half of its market share. This highlights the importance of security on the cloud, especially on AWS. While a lot has been said (and written) about how cloud environments can be secured, performing external security assessments in the form of pentests on AWS is still seen as a dark art. This book aims to help pentesters as well as seasoned system administrators with a hands-on approach to pentesting the various cloud services provided by Amazon through AWS using Kali Linux. To make things easier for novice pentesters, the book focuses on building a practice lab and refining penetration testing with Kali Linux on the cloud. This is helpful not only for beginners but also for pentesters who want to set up a pentesting environment in their private cloud, using Kali Linux to perform a white-box assessment of their own cloud resources. Besides this, there is a lot of in-depth coverage of the large variety of AWS services that are often overlooked during a pentest — from serverless infrastructure to automated deployment pipelines. By the end of this book, you will be able to identify possible vulnerable areas efficiently and secure your AWS cloud environment. What you will learn Familiarize yourself with and pentest the most common external-facing AWS services Audit your own infrastructure and identify flaws, weaknesses, and loopholes Demonstrate the process of lateral and vertical movement through a partially compromised AWS account Maintain stealth and persistence within a compromised AWS account Master a hands-on approach to pentesting Discover a number of automated tools to ease the process of continuously assessing and improving the security stance of an AWS infrastructure Who this book is for If you are a security analyst or a penetration tester and are interested in exploiting Cloud environments to reveal vulnerable areas and secure them, then this book is for you. A basic understanding of penetration testing, cloud computing, and its security concepts is mandatory.

Metasploit Penetration Testing Cookbook-Abhinav Singh 2018-02-26 Over 100 recipes for penetration testing using Metasploit and virtual machines Key Features Special focus on the latest operating systems, exploits, and penetration testing techniques Learn new anti-virus evasion techniques and use Metasploit to evade countermeasures Automate post exploitation with AutoRunScript Exploit Android devices, record audio and video, send and read SMS, read call logs, and much more Build and analyze Metasploit modules in Ruby Integrate Metasploit with other penetration testing tools Book Description Metasploit is the world's leading penetration testing tool and helps security and IT professionals find, exploit, and validate vulnerabilities. Metasploit allows penetration testing automation, password auditing, web application scanning, social engineering, post exploitation, evidence collection, and reporting. Metasploit's integration with InsightVM (or Nexpose), Nessus, OpenVas, and other vulnerability scanners provides a validation solution that simplifies vulnerability prioritization and remediation reporting. Teams can collaborate in Metasploit and present their findings in consolidated reports. In this book, you will go through great recipes that will allow you to start using Metasploit effectively. With an ever increasing level of complexity, and covering everything from the fundamentals to more advanced features in Metasploit, this book is not just for beginners but also for professionals keen to master this awesome tool. You will begin by building your lab environment, setting up Metasploit, and learning how to perform intelligence gathering, threat modeling, vulnerability analysis, exploitation, and post exploitation—all inside Metasploit. You will learn how to create and customize payloads to evade anti-virus software and bypass an organization's defenses, exploit server vulnerabilities, attack client systems, compromise mobile phones, automate

post exploitation, install backdoors, run keyloggers, hijack webcams, port public exploits to the framework, create your own modules, and much more. What you will learn Set up a complete penetration testing environment using Metasploit and virtual machines Master the world's leading penetration testing tool and use it in professional penetration testing Make the most of Metasploit with PostgreSQL, importing scan results, using workspaces, hosts, loot, notes, services, vulnerabilities, and exploit results Use Metasploit with the Penetration Testing Execution Standard methodology Use MSFvenom efficiently to generate payloads and backdoor files, and create shellcode Leverage Metasploit's advanced options, upgrade sessions, use proxies, use Meterpreter sleep control, and change timeouts to be stealthy Who this book is for If you are a Security professional or pentester and want to get into vulnerability exploitation and make the most of the Metasploit framework, then this book is for you. Some prior understanding of penetration testing and Metasploit is required.

Basic Security Testing with Kali Linux 2-Daniel W. Dieterle 2016-03-24 Basic Security Testing with Kali Linux 2 Kali Linux 2 (2016) is an Ethical Hacking platform that allows good guys to use the same tools and techniques that a hacker would use, so they can find security issues before the bad guys do. In Basic Security Testing with Kali Linux 2, you will learn basic examples of how hackers find out information about your company, find weaknesses in your security and how they gain access to your system. Completely updated for 2016, this step-by-step guide covers: Kali Linux Introduction and Overview Shodan (the "Hacker's Google") Metasploit Tutorials Exploiting Windows and Linux Systems Escalating Privileges in Windows Cracking Passwords and Obtaining Clear Text Passwords Wi-Fi Attacks Kali on a Raspberry Pi Securing your Network And Much More! Though no computer can be completely "Hacker Proof" knowing how an attacker works will help put you on the right track of better securing your network!

Practical Linux Security Cookbook-Tajinder Kalsi 2018-08-31 Enhance file system security and learn about network attack, security tools and different versions of Linux build. Key Features Hands-on recipes to create and administer a secure Linux system Enhance file system security and local and remote user authentication Use various security tools and different versions of Linux for different tasks Book Description Over the last few years, system security has gained a lot of momentum and software professionals are focusing heavily on it. Linux is often treated as a highly secure operating system. However, the reality is that Linux has its share of security flaws, and these security flaws allow attackers to get into your system and modify or even destroy your important data. But there's no need to panic, since there are various mechanisms by which these flaws can be removed, and this book will help you learn about different types of Linux security to create a more secure Linux system. With a step-by-step recipe approach, the book starts by introducing you to various threats to Linux systems. Then, this book will walk you through customizing the Linux kernel and securing local files. Next, you will move on to managing user authentication both locally and remotely and mitigating network attacks. Later, you will learn about application security and kernel vulnerabilities. You will also learn about patching Bash vulnerability, packet filtering, handling incidents, and monitoring system logs. Finally, you will learn about auditing using system services and performing vulnerability scanning on Linux. By the end of this book, you will be able to secure your Linux systems and create a robust environment. What you will learn Learn about vulnerabilities and exploits in relation to Linux systems Configure and build a secure kernel and test it Learn about file permissions and how to securely modify files Authenticate users remotely and securely copy files on remote systems Review different network security methods and tools Perform vulnerability scanning on Linux machines using tools Learn about malware scanning and read through logs Who this book is for This book is intended for all those Linux users who already have knowledge of Linux file systems and administration. You should be familiar with basic Linux commands. Understanding information security and its risks to a Linux system is also helpful in understanding the recipes more easily.

Practical Network Scanning-Ajay Singh Chauhan 2018-05-24 Get more from your network by securing its infrastructure and increasing its effectiveness Key Features Learn to choose the best network scanning toolset for your system Implement different concepts of network scanning such as port scanning and OS detection Adapt a practical approach to securing your network Book Description Network scanning is the process of assessing a network to identify an active host network; same methods can be used by an attacker or network administrator for security assessment. This procedure plays a vital role in risk assessment programs or while preparing a security plan for your organization. Practical Network Scanning starts with the concept of network scanning and how organizations can benefit from it. Then, going forward, we delve into the different scanning steps, such as service detection, firewall detection, TCP/IP port detection, and OS detection. We also implement these concepts using a few of the most prominent tools on the market, such as Nessus and Nmap. In the concluding chapters, we prepare a complete vulnerability assessment plan for your organization. By the end of this book, you will have hands-on experience in performing network scanning using different tools and in choosing the best tools for your system. What you will learn Achieve an effective security posture to design security architectures Learn vital security aspects before moving to the Cloud Launch secure applications with Web Application Security and SQL Injection Explore the basics of threat detection/response/ mitigation with important use cases Learn all about integration principles for PKI and tips to secure it Design a WAN infrastructure and ensure security over a public WAN Who this book is for If you are a security professional who is responsible for securing an organization's infrastructure, then this book is for you.

Mastering Kali Linux for Advanced Penetration Testing-Robert W. Beggs 2014-06-24 This book provides an overview of the kill chain approach to penetration testing, and then focuses on using Kali Linux to provide examples of how this methodology is applied in the real world. After describing the underlying concepts, step-by-step examples are provided that use selected tools to demonstrate the techniques. If you are an IT professional or a security consultant who wants to maximize the success of your network testing using some of the advanced features of Kali Linux, then this book is for you. This book will teach you how to become an expert in the pre-engagement, management, and documentation of penetration testing by building on your understanding of Kali Linux and wireless concepts.

Nmap 7-William Rowley 2017-09-15 This book is an excellent guide for you on how to use Nmap 7. The first part of the book guides you on how to get started with Nmap by installing it on the various types of operating systems. You are then guided on how to scan a network for SMB (Server Message Vulnerabilities). This will help you learn how to gather information from a target host. You are also guided on how to scan a network for the open ports. Such ports are an advantage to hackers, as they can allow them to gain unauthorized access into your network. Information encrypted with SSL/TLS encryption is prone to the heartbleed bug. You are guided to test whether your information is vulnerable to this bug. The process of determining the live hosts on a network is also explored in detail. Live hosts can be compromised for an attacker to gain valuable information from such hosts. The process of scanning a network firewall is also examined in detail. This will help you determine the ports which are open. You will also learn the services which have been assigned to the various ports on the firewall. The process of performing layer 2 discoveries with Nmap is explored in detail, thus, you will know how to do it. You are also guided on how to grab banners using Nmap. The process of gathering network information with Nmap as well as penetrating into servers is then discussed. The following topics are discussed in this book: - Getting Started with Nmap - Scanning for SMB Vulnerabilities - Scanning for Open Ports - Testing for HeartBleed Bug - Detecting Live Hosts - Firewall Scanning - Performing Layer 2 Discovery - Banner Grabbing - Information Gathering - Penetrating into Servers

Hacking with Kali Linux-Stephen Fletcher 2020-10-16 By the time you come to the end of this book, you will have mastered the basics of computer hacking alongside many advanced concepts in social engineering attack mechanisms.

Burp Suite Cookbook-Sunny Wear 2018-09-26 Get hands-on experience in using Burp Suite to execute attacks and perform web assessments Key Features Explore the tools in Burp Suite to meet your web infrastructure security demands Configure Burp to fine-tune the suite of tools specific to the target Use Burp extensions to assist with different technologies commonly found in application stacks Book Description Burp Suite is a Java-based platform for testing the security of your web applications, and has been adopted widely by professional enterprise testers. The Burp Suite Cookbook contains recipes to tackle challenges in determining and exploring vulnerabilities in web applications. You will learn how to uncover security flaws with various test cases for complex environments. After you have configured Burp for your environment, you will use Burp tools such as Spider, Scanner, Intruder, Repeater, and Decoder, among others, to resolve specific problems faced by pentesters. You will also explore working with various modes of Burp and then perform operations on the web. Toward the end, you will cover recipes that target specific test scenarios and resolve them using best practices. By the end of the book, you will be up and running with deploying Burp for securing web applications. What you will learn Configure Burp Suite for your web applications Perform authentication, authorization, business logic, and data validation testing Explore session management and client-side testing Understand unrestricted file uploads and server-side request forgery Execute XML external entity attacks with Burp Perform remote code execution with Burp Who this book is for If you are a security professional, web pentester, or software developer who wants to adopt Burp Suite for applications security, this book is for you.

Mastering Kali Linux for Advanced Penetration Testing-Vijay Kumar Velu 2017-06-30 A practical guide to testing your network's security with Kali Linux, the preferred choice of penetration testers and hackers. About This Book Employ advanced pentesting techniques with Kali Linux to build highly-secured systems Get to grips with various stealth techniques to remain undetected and defeat the latest defenses and follow proven approaches Select and configure the most effective tools from Kali Linux to test network security and prepare your business against malicious threats and save costs Who This Book Is For Penetration Testers, IT professional or a security consultant who wants to maximize the success of your network testing using some of the advanced features of Kali Linux, then this book is for you. Some prior exposure to basics of penetration testing/ethical hacking would be helpful in making the most out of this title. What You Will Learn Select and configure the most effective tools from Kali Linux to test network security Employ stealth to avoid detection in the network being tested Recognize when stealth attacks are being used against your network Exploit networks and data systems using wired and wireless networks as well as web services Identify and download valuable data from target systems Maintain access to compromised systems Use social engineering to compromise the weakest part of the network—the end users In Detail This book will take you, as a tester or security practitioner through the journey of reconnaissance, vulnerability assessment, exploitation, and post-exploitation activities used by penetration testers and hackers. We will start off by using a laboratory environment to validate tools and techniques, and using an application that supports a collaborative approach to penetration testing. Further we will get acquainted with passive reconnaissance with open source intelligence and active reconnaissance of the external and internal networks. We will also focus on how to select, use, customize, and interpret the results from a variety of different vulnerability scanners. Specific routes to the target will also be examined, including bypassing physical security and exfiltration of data using different techniques. You will also get to grips with concepts such as social engineering, attacking wireless networks, exploitation of web applications and remote access connections. Later you will learn the practical aspects of attacking user client systems by backdooring executable files. You will focus on the most vulnerable part of the network—directly and bypassing the controls, attacking the end user and maintaining persistence access through social media. You will also explore approaches to carrying out advanced penetration testing in tightly secured environments, and the book's hands-on approach will help you understand everything you need to know during a Red teaming exercise or penetration testing Style and approach An advanced level tutorial that follows a practical approach and proven methods to maintain top notch security of your networks.