

# Penetration Testing A Hands On Introduction To Hacking Pdf

[Penetration Testing A Hands On Introduction To Hacking Pdf](#) - The Enigmatic Realm of **penetration testing a hands on introduction to hacking pdf**: Unleashing the Language is Inner Magic

In a fast-paced digital era where connections and knowledge intertwine, the enigmatic realm of language reveals its inherent magic. Its capacity to stir emotions, ignite contemplation, and catalyze profound transformations is nothing lacking extraordinary. Within the captivating pages of **penetration testing a hands on introduction to hacking pdf** a literary masterpiece penned by way of a renowned author, readers embark on a transformative journey, unlocking the secrets and untapped potential embedded within each word. In this evaluation, we shall explore the book's core themes, assess its distinct writing style, and delve into its lasting impact on the hearts and minds of people who partake in its reading experience. Getting the books **penetration testing a hands on introduction to hacking pdf** now is not type of challenging means. You could not lonely going like books collection or library or borrowing from your links to admittance them. This is an totally easy means to specifically acquire lead by on-line. This online proclamation penetration testing a hands on introduction to hacking pdf can be one of the options to accompany you later than having supplementary time.

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**Penetration Testing** Georgia Weidman 2014-06-14 Penetration testers simulate cyber attacks to find security weaknesses in networks, operating systems, and applications. Information security experts worldwide use penetration techniques to evaluate enterprise defenses. In Penetration Testing, security expert, researcher, and trainer Georgia Weidman introduces you to the core skills and techniques that every pentester needs. Using a virtual machine-based lab that includes Kali Linux and vulnerable operating systems, you'll run through a series of practical lessons with tools like Wireshark, Nmap, and Burp Suite. As you follow along with the labs and launch attacks, you'll experience the key stages of an actual assessment—including information gathering, finding exploitable vulnerabilities, gaining access to systems, post exploitation, and more. Learn how to: -Crack passwords and wireless network keys with brute-forcing and wordlists -Test web applications for vulnerabilities -Use the Metasploit Framework to launch exploits and write your own Metasploit modules -Automate social-engineering attacks -Bypass antivirus software -Turn access to one machine into total control of the enterprise in the post exploitation phase You'll even explore writing your own exploits. Then it's on to mobile hacking—Weidman's particular area of research—with her tool, the Smartphone Pentest Framework. With its collection of hands-on lessons that cover key tools and strategies, Penetration Testing is the introduction that every aspiring hacker needs. [The Ultimate Kali Linux Book](#) Glen D. Singh 2022-02-24 Explore the latest ethical hacking tools and techniques to perform penetration testing from scratch Purchase of the print or Kindle book includes a free eBook in the PDF format Key FeaturesLearn to compromise enterprise networks with Kali LinuxGain comprehensive insights into security concepts using advanced real-life hacker techniquesUse Kali Linux in the same way ethical hackers and penetration testers do to gain control of your environmentBook Description Kali Linux is the most popular and advanced penetration testing Linux distribution within the cybersecurity industry. Using Kali Linux, a cybersecurity professional will be able to discover and exploit various vulnerabilities and perform advanced penetration testing on both enterprise wired and wireless networks. This book is a comprehensive guide for those who are new to Kali Linux and penetration testing that will have you up to speed in no time. Using real-world scenarios, you'll understand how to set up a lab and explore core penetration testing concepts. Throughout this book, you'll focus on information gathering and even discover different vulnerability assessment tools bundled in Kali Linux. You'll learn to discover target systems on a network, identify security flaws on devices, exploit security weaknesses and gain access to networks, set up Command and Control (C2) operations, and perform web application penetration testing. In this updated second edition, you'll be able to compromise Active Directory and exploit enterprise networks. Finally, this book covers best practices for performing complex web penetration testing techniques in a highly secured environment. By the end of this Kali Linux book, you'll have gained the skills to perform advanced penetration testing on enterprise networks using Kali Linux. What you will learnExplore the fundamentals of ethical hackingUnderstand how to install and configure Kali LinuxPerform asset and network discovery techniquesFocus on how to perform vulnerability assessmentsExploit the trust in Active Directory domain servicesPerform advanced exploitation with Command and Control (C2) techniquesImplement advanced wireless hacking techniquesBecome well-versed with exploiting vulnerable web applicationsWho this book is for This pentesting book is for students, trainers, cybersecurity professionals, cyber enthusiasts, network security professionals, ethical hackers, penetration testers, and security engineers. If you do not have any prior knowledge and are looking to become an expert in penetration testing using the Kali Linux operating system (OS), then this book is for you.

*Advanced Penetration Testing for Highly-Secured Environments* Lee Allen 2016-03-29 Employ the most advanced pentesting techniques and tools to build highly-secured systems and environments About This Book Learn how to build your own pentesting lab environment to practice advanced techniques Customize your own scripts, and learn methods to exploit 32-bit and 64-bit programs Explore a vast variety of stealth techniques to bypass a number of protections when penetration testing Who This Book Is For This book is for anyone who wants to improve their skills in penetration testing. As it follows a step-by-step approach, anyone from a novice to an experienced security tester can learn effective techniques to deal with highly secured environments. Whether you are brand new or a seasoned expert, this book will provide you with the skills you need to successfully create, customize, and plan an advanced penetration test. What You Will

Learn A step-by-step methodology to identify and penetrate secured environments Get to know the process to test network services across enterprise architecture when defences are in place Grasp different web application testing methods and how to identify web application protections that are deployed Understand a variety of concepts to exploit software Gain proven post-exploitation techniques to exfiltrate data from the target Get to grips with various stealth techniques to remain undetected and defeat the latest defences Be the first to find out the latest methods to bypass firewalls Follow proven approaches to record and save the data from tests for analysis In Detail The defences continue to improve and become more and more common, but this book will provide you with a number of proven techniques to defeat the latest defences on the networks. The methods and techniques contained will provide you with a powerful arsenal of best practices to increase your penetration testing successes. The processes and methodology will provide you techniques that will enable you to be successful, and the step by step instructions of information gathering and intelligence will allow you to gather the required information on the targets you are testing. The exploitation and post-exploitation sections will supply you with the tools you would need to go as far as the scope of work will allow you. The challenges at the end of each chapter are designed to challenge you and provide real-world situations that will hone and perfect your penetration testing skills. You will start with a review of several well respected penetration testing methodologies, and following this you will learn a step-by-step methodology of professional security testing, including stealth, methods of evasion, and obfuscation to perform your tests and not be detected! The final challenge will allow you to create your own complex layered architecture with defences and protections in place, and provide the ultimate testing range for you to practice the methods shown throughout the book. The challenge is as close to an actual penetration test assignment as you can get! Style and approach The book follows the standard penetration testing stages from start to finish with step-by-step examples. The book thoroughly covers penetration test expectations, proper scoping and planning, as well as enumeration and foot printing *Penetration Tester's Open Source Toolkit* Jeremy Faircloth 2011-08-25 Penetration Tester's Open Source Toolkit, Third Edition, discusses the open source tools available to penetration testers, the ways to use them, and the situations in which they apply. Great commercial penetration testing tools can be very expensive and sometimes hard to use or of questionable accuracy. This book helps solve both of these problems. The open source, no-cost penetration testing tools presented do a great job and can be modified by the student for each situation. This edition offers instruction on how and in which situations the penetration tester can best use them. Real-life scenarios support and expand upon explanations throughout. It also presents core technologies for each type of testing and the best tools for the job. The book consists of 10 chapters that covers a wide range of topics such as reconnaissance; scanning and enumeration; client-side attacks and human weaknesses; hacking database services; Web server and Web application testing; enterprise application testing; wireless penetrating testing; and building penetration test labs. The chapters also include case studies where the tools that are discussed are applied. New to this edition: enterprise application testing, client-side attacks and updates on Metasploit and Backtrack. This book is for people who are interested in penetration testing or professionals engaged in penetration testing. Those working in the areas of database, network, system, or application administration, as well as architects, can gain insights into how penetration testers perform testing in their specific areas of expertise and learn what to expect from a penetration test. This book can also serve as a reference for security or audit professionals. Details current open source penetration testing tools Presents core technologies for each type of testing and the best tools for the job New to this edition: Enterprise application testing, client-side attacks and updates on Metasploit and Backtrack

*Penetration Testing* Georgia Weidman 2014 Penetration testers simulate cyber attacks to find security weaknesses in networks, operating systems, and applications. This book introduces the core skills and techniques that are needed. Using a virtual machine-based lab that includes Kali Linux and vulnerable operating systems, it runs through a series of practical lessons with tools like Wireshark, Nmap, and Burp Suite. It shows the key stages of an actual assessment—including information gathering, finding exploitable vulnerabilities, gaining access to systems, post exploitation, and more. The reader will learn how to: crack passwords and wireless network keys with brute-forcing and wordlists; test web applications for vulnerabilities; use the Metasploit Framework to launch exploits and write Metasploit modules; automate social-engineering attacks; bypass antivirus software; turn access to one machine into total control of the

enterprise in the post exploitation phase; explore mobile hacking with the author's tool, the Smartphone Pentest Framework. --

**Professional Penetration Testing** Thomas Wilhelm 2013-06-27 Professional Penetration Testing walks you through the entire process of setting up and running a pen test lab. Penetration testing—the act of testing a computer network to find security vulnerabilities before they are maliciously exploited—is a crucial component of information security in any organization. With this book, you will find out how to turn hacking skills into a professional career. Chapters cover planning, metrics, and methodologies; the details of running a pen test, including identifying and verifying vulnerabilities; and archiving, reporting and management practices. Author Thomas Wilhelm has delivered penetration testing training to countless security professionals, and now through the pages of this book you can benefit from his years of experience as a professional penetration tester and educator. After reading this book, you will be able to create a personal penetration test lab that can deal with real-world vulnerability scenarios. All disc-based content for this title is now available on the Web. Find out how to turn hacking and pen testing skills into a professional career Understand how to conduct controlled attacks on a network through real-world examples of vulnerable and exploitable servers Master project management skills necessary for running a formal penetration test and setting up a professional ethical hacking business Discover metrics and reporting methodologies that provide experience crucial to a professional penetration tester

**Hands-On Penetration Testing with Kali NetHunter** Glen D. Singh 2019-02-28 Convert Android to a powerful pentesting platform. Key FeaturesGet up and running with Kali Linux NetHunter Connect your Android device and gain full control over Windows, OSX, or Linux devices Crack Wi-Fi passwords and gain access to devices connected over the same network collecting intellectual dataBook Description Kali NetHunter is a version of the popular and powerful Kali Linux pentesting platform, designed to be installed on mobile devices. Hands-On Penetration Testing with Kali NetHunter will teach you the components of NetHunter and how to install the software. You'll also learn about the different tools included and how to optimize and use a package, obtain desired results, perform tests, and make your environment more secure. Starting with an introduction to Kali NetHunter, you will delve into different phases of the pentesting process. This book will show you how to build your penetration testing environment and set up your lab. You will gain insight into gathering intellectual data, exploiting vulnerable areas, and gaining control over target systems. As you progress through the book, you will explore the NetHunter tools available for exploiting wired and wireless devices. You will work through new ways to deploy existing tools designed to reduce the chances of detection. In the concluding chapters, you will discover tips and best practices for integrating security hardening into your Android ecosystem. By the end of this book, you will have learned to successfully use a mobile penetration testing device based on Kali NetHunter and Android to accomplish the same tasks you would traditionally, but in a smaller and more mobile form factor. What you will learnChoose and configure a hardware device to use Kali NetHunter Use various tools during pentests Understand NetHunter suite components Discover tips to effectively use a compact mobile platform Create your own Kali NetHunter-enabled device and configure it for optimal results Learn to scan and gather information from a target Explore hardware adapters for testing and auditing wireless networks and Bluetooth devicesWho this book is for Hands-On Penetration Testing with Kali NetHunter is for pentesters, ethical hackers, and security professionals who want to learn to use Kali NetHunter for complete mobile penetration testing and are interested in venturing into the mobile domain. Some prior understanding of networking assessment and Kali Linux will be helpful.

**Google Hacking for Penetration Testers** Johnny Long 2011-04-18 This book helps people find sensitive information on the Web. Google is one of the 5 most popular sites on the internet with more than 380 million unique users per month (Nielsen/NetRatings 8/05). But, Google's search capabilities are so powerful, they sometimes discover content that no one ever intended to be publicly available on the Web including: social security numbers, credit card numbers, trade secrets, and federally classified documents. Google Hacking for Penetration Testers Volume 2 shows the art of manipulating Google used by security professionals and system administrators to find this sensitive information and "self-police their own organizations. Readers will learn how Google Maps and Google Earth provide pinpoint military accuracy, see how bad guys can manipulate Google to create super worms, and see how they can "mash up" Google with MySpace, LinkedIn, and more for passive reconnaissance. • Learn Google Searching Basics Explore Google's Web-based Interface, build Google queries, and work with Google URLs. • Use Advanced Operators to Perform Advanced Queries Combine advanced operators and learn about colliding operators and bad search-fu. • Learn the Ways of the Google Hacker See how to use caches for anonymity and review directory listings and traversal techniques. • Review Document Grinding and Database Digging See the ways to use Google to locate documents and then search within the documents to locate information. • Understand Google's Part in an Information Collection Framework Learn the principles of automating searches and the applications of data mining. • Locate Exploits and Finding Targets Locate exploit code and then vulnerable targets. • See Ten Simple Security Searches Learn a few searches that give good results just about every time and are good for a security assessment. • Track Down Web Servers Locate and profile web servers, login portals, network hardware and utilities. • See How Bad Guys Troll for Data Find ways to search for usernames, passwords, credit card numbers, social security numbers, and other juicy information. • Hack Google Services Learn more about the AJAX Search API, Calendar, Blogger, Blog Search, and more.

**Kali Linux Penetration Testing Bible** Gus Khawaja 2021-04-26 Your ultimate guide to pentesting with Kali Linux Kali is a popular and powerful Linux distribution used by cybersecurity professionals around the world. Penetration testers must master Kali's varied library of tools to be effective at their work. The Kali Linux Penetration Testing Bible is the hands-on and methodology guide for pentesting with Kali. You'll discover everything you need to know about the tools and techniques hackers use to gain access to systems like yours so you can erect reliable defenses for your virtual assets. Whether you're new to the field or an established pentester, you'll find what you need in this comprehensive guide. Build a modern dockerized environment Discover the fundamentals of the bash language in Linux Use a variety of effective techniques to find vulnerabilities (OSINT, Network Scan, and more) Analyze your findings and identify false positives and uncover advanced subjects, like buffer overflow, lateral movement, and privilege escalation Apply practical and efficient pentesting workflows Learn about Modern Web Application Security Secure SDLC Automate your penetration testing with Python

**The Basics of Hacking and Penetration Testing** Patrick Enggbretson 2013-06-24 The Basics of Hacking and Penetration Testing, Second Edition, serves as an introduction to the steps required to complete a penetration test or perform an ethical hack from beginning to end. The book teaches students how to properly utilize and interpret the results of the modern-day hacking tools required to complete a penetration test. It provides a simple and clean explanation of how to effectively utilize these tools, along with a four-step methodology for conducting a penetration test or hack, thus equipping students with the know-how required to jump start their careers and gain a better understanding of offensive security. Each chapter contains hands-on examples and exercises that are designed to teach learners how to interpret results and utilize those results in later phases. Tool coverage includes: Backtrack Linux, Google reconnaissance, MetaGooFil, dig, Nmap, Nessus, Metasploit, Fast Track Autopwn, Netcat, and Hacker Defender rootkit. This is complemented by PowerPoint slides for use in class. This book is an ideal resource for security consultants, beginning InfoSec professionals, and students. Each chapter contains hands-on examples and exercises that are designed to teach you how to interpret the results and utilize those results in later phases. Written by an author who works in the field as a Penetration Tester and who teaches Offensive Security, Penetration Testing, and Ethical Hacking, and Exploitation classes at Dakota State University. Utilizes the Kali Linux distribution and focuses on the seminal tools required to complete a penetration test.

**Hands-On Penetration Testing on Windows** Phil Bramwell 2018-07-30 Master the art of identifying vulnerabilities within the Windows OS and develop the desired solutions for it using Kali Linux. Key Features Identify the vulnerabilities in your system using Kali Linux 2018.02 Discover the art of exploiting Windows kernel drivers Get to know several bypassing techniques to gain control of your Windows environment Book Description Windows has always been the go-to platform for users around the globe to perform administration and ad hoc tasks, in settings that range from small offices to global enterprises, and this massive footprint makes securing Windows a unique challenge. This book will enable you to distinguish yourself to your clients. In this book, you'll learn advanced techniques to attack Windows environments from the indispensable toolkit that is Kali Linux. We'll work through core network hacking concepts and advanced Windows exploitation techniques, such as stack and heap overflows, precision heap spraying, and kernel exploitation, using coding principles that allow you to leverage powerful Python scripts and shellcode. We'll wrap up with post-exploitation strategies that enable you to go deeper and keep your access. Finally, we'll introduce kernel hacking fundamentals and fuzzing testing, so you can discover vulnerabilities and write custom exploits. By the end of this book, you'll be well-versed in identifying vulnerabilities within the Windows OS and developing the desired solutions for them. What you will learn

Get to know advanced pen testing techniques with Kali Linux Gain an understanding of Kali Linux tools and methods from behind the scenes See how to use Kali Linux at an advanced level Understand the exploitation of Windows kernel drivers Understand advanced Windows concepts and protections, and how to bypass them using Kali Linux Discover Windows exploitation techniques, such as stack and heap overflows and kernel exploitation, through coding principles Who this book is for This book is for penetration testers, ethical hackers, and individuals breaking into the pentesting role after demonstrating an advanced skill in boot camps. Prior experience with Windows exploitation, Kali Linux, and some Windows debugging tools is necessary

**Burp Suite Cookbook** Sunny Wear 2018-09-26 Get hands-on experience in using Burp Suite to execute attacks and perform web assessments Key FeaturesExplore the tools in Burp Suite to meet your web infrastructure security demandsConfigure Burp to fine-tune the suite of tools specific to the targetUse Burp extensions to assist with different technologies commonly found in application stacksBook 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 learnConfigure Burp Suite for your web applicationsPerform authentication, authorization, business logic, and data validation testingExplore session management and client-side testingUnderstand unrestricted file uploads and server-side request forgeryExecute XML external entity attacks with BurpPerform remote code execution with BurpWho 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.

**Hands-On Web Penetration Testing with Metasploit** Harpreet Singh 2020-05-22 Identify, exploit, and test web application security with ease Key FeaturesGet up to speed with Metasploit and discover how to use it for pentestingUnderstand how to exploit and protect your web environment effectivelyLearn how an exploit works and what causes vulnerabilitiesBook Description Metasploit has been a crucial security tool for many years. However, there are only a few modules that Metasploit has made available to the public for pentesting web applications. In this book, you'll explore another aspect of the framework - web applications - which is not commonly used. You'll also discover how Metasploit, when used with its inbuilt GUI, simplifies web application penetration testing. The book starts by focusing on the Metasploit setup, along with covering the life cycle of the penetration testing process. Then, you will explore Metasploit terminology and the web GUI, which is available in the Metasploit Community Edition. Next, the book will take you through pentesting popular content management systems such as Drupal, WordPress, and Joomla, which will also include studying the latest CVEs and understanding the root cause of vulnerability in detail. Later, you'll gain insights into the vulnerability assessment and exploitation of technological platforms such as JBoss, Jenkins, and Tomcat. Finally, you'll learn how to fuzz web applications to find logical security vulnerabilities using third-party tools. By the end of this book, you'll have a solid understanding of how to exploit and validate vulnerabilities by working with various tools and techniques. What you will learnGet up to speed with setting up and installing the Metasploit frameworkGain first-hand experience of the Metasploit web interfaceUse Metasploit for web-application reconnaissanceUnderstand how to pentest various content management systemsPentest platforms such as JBoss, Tomcat, and JenkinsBecome well-versed with fuzzing web applicationsWrite and automate penetration testing reportsWho this book is for This book is for web security analysts, bug bounty hunters, security professionals, or any stakeholder in the security sector who wants to delve into web application security testing. Professionals who are not experts with command line tools or Kali Linux and prefer Metasploit's graphical user interface (GUI) will also find this book useful. No experience with Metasploit is required, but basic knowledge of Linux and web application pentesting will be helpful.

**Hands-on Penetration Testing for Web Applications** Richa Gupta 2021-03-27 Learn how to build an end-to-end Web application security testing framework È KEY FEATURESÈÈ \_ Exciting coverage on vulnerabilities and security loopholes in modern web applications. \_ Practical exercises and case scenarios on performing pentesting and identifying security breaches. \_ Cutting-edge offerings on implementation of tools including nmap, burp suite and Wireshark. DESCRIPTIONÈ Hands-on Penetration Testing for Web Applications offers readers with knowledge and skillset to identify, exploit and control the security vulnerabilities present in commercial web applications including online banking, mobile payments and e-commerce applications. We begin with exposure to modern application vulnerabilities present in web applications. You will learn and gradually practice the core concepts of penetration testing and OWASP Top Ten vulnerabilities including injection, broken authentication and access control, security misconfigurations and cross-site scripting (XSS). You will then gain advanced skillset by exploring the methodology of security testing and how to work around security testing as a true security professional. This book also brings cutting-edge coverage on exploiting and detecting vulnerabilities such as authentication flaws, session flaws, access control flaws, input validation flaws etc. You will discover an end-to-end implementation of tools such as nmap, burp suite, and Wireshark. You will then learn to practice how to execute web application intrusion testing in automated testing tools and also to analyze vulnerabilities and threats present in the source codes. By the end of this book, you will gain in-depth knowledge of web application testing framework and strong proficiency in exploring and building high secured web applications. WHAT YOU WILL LEARN \_ Complete overview of concepts of web penetration testing. \_ Learn to secure against OWASP TOP 10 web vulnerabilities. \_ Practice different techniques and signatures for identifying vulnerabilities in the source code of the web application. \_ Discover security flaws in your web application using most popular tools like nmap and Wireshark. \_ Learn to respond modern automated cyber attacks with the help of expert-led tips and tricks. \_ Exposure to analysis of vulnerability codes, security automation tools and common security flaws. WHO THIS BOOK IS FORÈÈ This book is for Penetration Testers, ethical hackers, and web application developers. People who are new to security testing will also find this book useful. Basic knowledge of HTML, JavaScript would be an added advantage. TABLE OF CONTENTS 1. Why Application Security? 2. Modern application Vulnerabilities 3. Web Pentesting Methodology 4. Testing Authentication 5. Testing Session Management 6. Testing Secure Channels 7. Testing Secure Access Control 8. Sensitive Data and Information disclosure 9. Testing Secure Data validation 10. Attacking Application Users: Other Techniques 11. Testing Configuration and Deployment 12. Automating Custom Attacks 13. Pentesting Tools 14. Static Code Analysis 15. Mitigations and Core Defense Mechanisms *Penetration Testing Fundamentals* William Easttom II 2018-03-06 !-[if gte mso 9] ![/endif]- !-[if gte mso 9] Normal 0 false false false EN-US X-NONE X-NONE ![/endif]- !-[if gte mso 9] ![/endif]- !-[if gte mso 10] ![/endif]- The perfect introduction to pen testing for all IT professionals and students · Clearly explains key concepts, terminology, challenges, tools, and skills · Covers the latest penetration testing standards from NSA, PCI, and NIST Welcome to today's most useful and practical introduction to penetration testing. Chuck Easttom brings together up-to-the-minute coverage of all the concepts, terminology, challenges, and skills you'll need to be effective. Drawing on decades of experience in cybersecurity and related IT fields, Easttom integrates theory and practice, covering the entire penetration testing life cycle from planning to reporting. You'll gain practical experience through a start-to-finish sample project relying on free open source tools. Throughout, quizzes, projects, and review sections deepen your understanding and help you apply what you've learned. Including essential pen testing standards from NSA, PCI, and NIST, Penetration Testing Fundamentals will help you protect your assets—and expand your career options. LEARN HOW TO · Understand what pen testing is and how it's used · Meet modern standards for comprehensive and effective testing · Review cryptography essentials every pen tester must know · Perform reconnaissance with Nmap, Google searches, and ShodanHq · Use malware as part of your pen testing toolkit · Test for vulnerabilities in Windows shares, scripts, WMI, and the Registry · Pen test websites and web communication · Recognize SQL injection and cross-site scripting attacks · Scan for vulnerabilities with OWASP ZAP, Vega, Nessus, and MBSA · Identify Linux vulnerabilities and password cracks · Use Kali Linux for advanced pen testing · Apply general hacking technique ssuch as fake Wi-Fi hotspots and social engineering · Systematically test your environment with Metasploit · Write or customize sophisticated Metasploit exploits

**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 FeaturesEfficiently perform penetration testing techniques on your public cloud instancesLearn not only to cover loopholes but also to automate security monitoring and alerting within your cloud-based deployment pipelinesA step-by-step guide that will help you leverage the most widely used security platform to secure your AWS Cloud environmentBook 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.

**From Hacking to Report Writing** Robert Svensson 2016-11-04 Learn everything you need to know to become a professional security and penetration tester. It simplifies hands-on security and penetration testing by breaking down each step of the process so that finding vulnerabilities and misconfigurations becomes easy. The book explains how to methodically locate, exploit, and professionally report security weaknesses using techniques such as SQL-injection, denial-of-service attacks, and password hacking. Although *From Hacking to Report Writing* will give you the technical know-how needed to carry out advanced security tests, it also offers insight into crafting professional looking reports describing your work and how your customers can benefit from it. The book will give you the tools you need to clearly communicate the benefits of high-quality security and penetration testing to IT-management, executives and other stakeholders. Embedded in the book are a number of on-the-job stories that will give you a good understanding of how you can apply what you have learned to real-world situations. We live in a time where computer security is more important than ever. Staying one step ahead of hackers has never been a bigger challenge. *From Hacking to Report Writing* clarifies how you can sleep better at night knowing that your network has been thoroughly tested. What you'll learn

**Clearly understand why security and penetration testing is important**

**Find vulnerabilities in any system using the same techniques as hackers do**

**Write professional looking reports**

**Know which security and penetration testing method to apply for any given situation**

**Successfully hold together a security and penetration test project**

**Who This Book Is For** Aspiring security and penetration testers, security consultants, security and penetration testers, IT managers, and security researchers.

**Ethical Hacking and Penetration Testing Guide** Rafay Baloch 2017-09-29 Requiring no prior hacking experience, *Ethical Hacking and Penetration Testing Guide* supplies a complete introduction to the steps required to complete a penetration test, or ethical hack, from beginning to end. You will learn how to properly utilize and interpret the results of modern-day hacking tools, which are required to complete a penetration test. The book covers a wide range of tools, including Backtrack Linux, Google reconnaissance, MetaGooFil, dig, Nmap, Nessus, Metasploit, Fast Track Autopwn, Netcat, and Hacker Defender rootkit. Supplying a simple and clean explanation of how to effectively utilize these tools, it details a four-step methodology for conducting an effective penetration test or hack. Providing an accessible introduction to penetration testing and hacking, the book supplies you with a fundamental understanding of offensive security. After completing the book you will be prepared to take on in-depth and advanced topics in hacking and penetration testing. The book walks you through each of the steps and tools in a structured, orderly manner allowing you to understand how the output from each tool can be fully utilized in the subsequent phases of the penetration test. This process will allow you to clearly see how the various tools and phases relate to each other. An ideal resource for those who want to learn about ethical hacking but don't know where to start, this book will help take your hacking skills to the next level. The topics described in this book comply with international standards and with what is being taught in international certifications.

**Hacking and Penetration Testing with Low Power Devices** Philip Polstra 2014-09-02 *Hacking and Penetration Testing with Low Power Devices* shows you how to perform penetration tests using small, low-powered devices that are easily hidden and may be battery-powered. It shows how to use an army of devices, costing less than you might spend on a laptop, from distances of a mile or more. *Hacking and Penetration Testing with Low Power Devices* shows how to use devices running a version of The Deck, a full-featured penetration testing and forensics Linux distribution, and can run for days or weeks on batteries due to their low power consumption. Author Philip Polstra shows how to use various configurations, including a device the size of a deck of cards that can easily be attached to the back of a computer. While each device running The Deck is a full-featured pen-testing platform, connecting systems together via 802.15.3 networking gives you even more power and flexibility. This reference teaches you how to construct and power these devices, install operating systems, and fill out your toolbox of small low-power devices with hundreds of tools and scripts from the book's companion website. *Hacking and Penetration Testing with Low Power Devices* puts all these tools into your hands and will help keep you at the top of your game performing cutting-edge pen tests from anywhere in the world! Understand how to plan and execute an effective penetration test using an army of low-power devices

**Learn how to configure and use open-source tools and easy-to-construct low-power devices**

**Leverage IEEE 802.15.4 networking to perform penetration tests from up to a mile away, or use 802.15.4 gateways to perform pen tests from anywhere in the world**

**Access penetration testing operating systems with hundreds of tools and scripts on the book's companion web site**

**Mastering Machine Learning for Penetration Testing** Chiheb Chebbi 2018-06-27 Become a master at penetration testing using machine learning with Python

**Key Features**

- Identify ambiguities and breach intelligent security systems
- Perform unique cyber attacks to breach robust systems
- Learn to leverage machine learning algorithms

**Book Description** Cyber security is crucial for both businesses and individuals. As systems are getting smarter, we now see machine learning interrupting computer security. With the adoption of machine learning in upcoming security products, it's important for pentesters and security researchers to understand how these systems work, and to breach them for testing purposes. This book begins with the basics of machine learning and the algorithms used to build robust systems. Once you've gained a fair understanding of how security products leverage machine learning, you'll dive into the core concepts of breaching such systems. Through practical use cases, you'll see how to find loopholes and surpass a self-learning security system. As you make your way through the chapters, you'll focus on topics such as network intrusion detection and AV and IDS evasion. We'll also cover the best practices when identifying ambiguities, and extensive techniques to breach an intelligent system. By the end of this book, you will be well-versed with identifying loopholes in a self-learning security system and will be able to efficiently breach a machine learning system. What you will learn

**Take an in-depth look at machine learning**

**Get to know natural language processing (NLP)**

**Understand malware feature engineering**

**Build generative adversarial networks using Python libraries**

**Work on threat hunting with machine learning and the ELK stack**

**Explore the best practices for machine learning**

**Who this book is for** This book is for pen testers and security professionals who are interested in learning techniques to break an intelligent security system. Basic knowledge of Python is needed, but no prior knowledge of machine learning is necessary.

**AWS Penetration Testing** Jonathan Helmus 2020-12-04 Get to grips with security assessment, vulnerability exploitation, workload security, and encryption with this guide to ethical hacking and learn to secure your AWS environment

**Key Features**

- Perform cybersecurity events such as red or blue team activities and functional testing
- Gain an overview and understanding of AWS penetration testing and security
- Make the most of your AWS cloud infrastructure by learning about AWS fundamentals and exploring pentesting best practices

**Book Description** Cloud security has always been treated as the highest priority by AWS while designing a robust cloud infrastructure. AWS has now extended its support to allow users and security experts to perform penetration tests on its environment. This has not only revealed a number of loopholes and brought vulnerable points in their existing system to the fore, but has also opened up opportunities for organizations to build a secure cloud environment. This book teaches you how to perform penetration tests in a controlled AWS environment. You'll begin by performing security assessments of major AWS resources such as Amazon EC2 instances, Amazon S3, Amazon API Gateway, and AWS Lambda. Throughout the course of this book, you'll also learn about specific tests such as exploiting applications, testing permissions flaws, and discovering weak policies. Moving on, you'll discover how to establish private-cloud access through backdoor Lambda functions. As you advance, you'll explore

the no-go areas where users can't make changes due to vendor restrictions and find out how you can avoid being flagged to AWS in these cases. Finally, this book will take you through tips and tricks for securing your cloud environment in a professional way. By the end of this penetration testing book, you'll have become well-versed in a variety of ethical hacking techniques for securing your AWS environment against modern cyber threats. What you will learn

**Set up your AWS account and get well-versed in various pentesting services**

**Delve into a variety of cloud pentesting tools and methodologies**

**Discover how to exploit vulnerabilities in both AWS and applications**

**Understand the legality of pentesting and learn how to stay in scope**

**Explore cloud pentesting best practices, tips, and tricks**

**Become competent at using tools such as Kali Linux, Metasploit, and Nmap**

**Get to grips with post-exploitation procedures and find out how to write pentesting reports**

**Who this book is for** If you are a network engineer, system administrator, or system operator looking to secure your AWS environment against external cyberattacks, then this book is for you. Ethical hackers, penetration testers, and security consultants who want to enhance their cloud security skills will also find this book useful. No prior experience in penetration testing is required; however, some understanding of cloud computing or AWS cloud is recommended.

**The Hacker Playbook** Peter Kim 2014 Just as a professional athlete doesn't show up without a solid game plan, ethical hackers, IT professionals, and security researchers should not be unprepared, either. The *Hacker Playbook* provides them their own game plans. Written by a longtime security professional and CEO of Secure Planet, LLC, this step-by-step guide to the "game" of penetration hacking features hands-on examples and helpful advice from the top of the field. Through a series of football-style "plays," this straightforward guide gets to the root of many of the roadblocks people may face while penetration testing—including attacking different types of networks, pivoting through security controls, and evading antivirus software. From "Pregame" research to "The Drive" and "The Lateral Pass," the practical plays listed can be read in order or referenced as needed. Either way, the valuable advice within will put you in the mindset of a penetration tester of a Fortune 500 company, regardless of your career or level of experience. Whether you're downing energy drinks while desperately looking for an exploit, or preparing for an exciting new job in IT security, this guide is an essential part of any ethical hacker's library—so there's no reason not to get in the game.

**Penetration Testing Azure for Ethical Hackers** David Okeyode 2021-11-25 Simulate real-world attacks using tactics, techniques, and procedures that adversaries use during cloud breaches

**Key Features**

- Understand the different Azure attack techniques and methodologies used by hackers
- Find out how you can ensure end-to-end cybersecurity in the Azure ecosystem
- Discover various tools and techniques to perform successful penetration tests on your Azure infrastructure

**Book Description** "If you're looking for this book, you need it." — 5\* Amazon Review

Curious about how safe Azure really is? Put your knowledge to work with this practical guide to penetration testing. This book offers a no-faff, hands-on approach to exploring Azure penetration testing methodologies, which will get up and running in no time with the help of real-world examples, scripts, and ready-to-use source code. As you learn about the Microsoft Azure platform and understand how hackers can attack resources hosted in the Azure cloud, you'll find out how to protect your environment by identifying vulnerabilities, along with extending your pentesting tools and capabilities. First, you'll be taken through the prerequisites for pentesting Azure and shown how to set up a pentesting lab. You'll then simulate attacks on Azure assets such as web applications and virtual machines from anonymous and authenticated perspectives. In the later chapters, you'll learn about the opportunities for privilege escalation in Azure tenants and ways in which an attacker can create persistent access to an environment. By the end of this book, you'll be able to leverage your ethical hacking skills to identify and implement different tools and techniques to perform successful penetration tests on your own Azure infrastructure. What you will learn

**Identify how administrators misconfigure Azure services, leaving them open to exploitation**

**Understand how to detect cloud infrastructure, service, and application misconfigurations**

**Explore processes and techniques for exploiting common Azure security issues**

**Use on-premises networks to pivot and escalate access within Azure**

**Diagnose gaps and weaknesses in Azure security implementations**

**Understand how attackers can escalate privileges in Azure AD**

**Who this book is for** This book is for new and experienced infosec enthusiasts who want to learn how to simulate real-world Azure attacks using tactics, techniques, and procedures (TTPs) that adversaries use in cloud breaches. Any technology professional working with the Azure platform (including Azure administrators, developers, and DevOps engineers) interested in learning how attackers exploit vulnerabilities in Azure hosted infrastructure, applications, and services will find this book useful.

**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*?

**Learning Python Web Penetration Testing** Christian Martorella 2018-06-27 Leverage the simplicity of Python and available libraries to build web security testing tools for your application

**Key Features**

- Understand the web application penetration testing methodology and toolkit using Python
- Write a web crawler/spider with the Scrapy library
- Detect and exploit SQL injection vulnerabilities by creating a script all by yourself

**Book Description** Web penetration testing is the use of tools and code to attack a website or web app in order to assess its vulnerability to external threats. While there are an increasing number of sophisticated, ready-made tools to scan systems for vulnerabilities, the use of Python allows you to write system-specific scripts, or alter and extend existing testing tools to find, exploit, and record as many security weaknesses as possible. *Learning Python Web Penetration Testing* will walk you through the web application penetration testing methodology, showing you how to write your own tools with Python for each activity throughout the process. The book begins by emphasizing the importance of knowing how to write your own tools with Python for web application penetration testing. You will then learn to interact with a web application using Python, understand the anatomy of an HTTP request, URL, headers and message body, and later create a script to perform a request, and interpret the response and its headers. As you make your way through the book, you will write a web crawler using Python and the Scrapy library. The book will also help you to develop a tool to perform brute force attacks in different parts of the web application. You will then discover more on detecting and exploiting SQL injection vulnerabilities. By the end of this book, you will have successfully created an HTTP proxy based on the mitmproxy tool. What you will learn

**Interact with a web application using the Python and Requests libraries**

**Create a basic web application crawler and make it recursive**

**Develop a brute force tool to discover and enumerate resources such as files and directories**

**Explore different authentication methods commonly used in web applications**

**Enumerate table names from a database using SQL injection**

**Understand the web application penetration testing methodology and toolkit**

**Who this book is for** *Learning Python Web Penetration Testing* is for web developers who want to step into the world of web application security testing. Basic knowledge of Python is necessary.

**The Hacker Playbook 2** Peter Kim 2015 Just as a professional athlete doesn't show up without a solid game plan, ethical hackers, IT professionals, and security researchers should not be unprepared, either. The *Hacker Playbook* provides them their own game plans. Written by a longtime security professional and CEO of Secure Planet, LLC, this step-by-step guide to the "game" of penetration hacking features hands-on examples and helpful advice from the top of the field. Through a series of football-style "plays," this straightforward guide gets to the root of many of the roadblocks people may face while penetration testing—including attacking different types of networks, pivoting through security controls, privilege escalation, and evading antivirus software. From "Pregame" research to "The Drive" and "The Lateral Pass," the practical plays listed can be read in order or referenced as needed. Either way, the valuable advice within will put you in the mindset of a penetration tester of a Fortune 500 company, regardless of your career or level of experience. This second version of *The Hacker Playbook* takes all the best "plays" from the original book and incorporates the latest attacks, tools, and lessons learned. Double the content compared to its

predecessor, this guide further outlines building a lab, walks through test cases for attacks, and provides more customized code. Whether you're downing energy drinks while desperately looking for an exploit, or preparing for an exciting new job in IT security, this guide is an essential part of any ethical hacker's library—so there's no reason not to get in the game.

**Penetration Testing** Georgia Weidman 2014-06-14 Penetration testers simulate cyber attacks to find security weaknesses in networks, operating systems, and applications. Information security experts worldwide use penetration techniques to evaluate enterprise defenses. In Penetration Testing, security expert, researcher, and trainer Georgia Weidman introduces you to the core skills and techniques that every pentester needs. Using a virtual machine-based lab that includes Kali Linux and vulnerable operating systems, you'll run through a series of practical lessons with tools like Wireshark, Nmap, and Burp Suite. As you follow along with the labs and launch attacks, you'll experience the key stages of an actual assessment—including information gathering, finding exploitable vulnerabilities, gaining access to systems, post exploitation, and more. Learn how to: -Crack passwords and wireless network keys with brute-forcing and wordlists -Test web applications for vulnerabilities -Use the Metasploit Framework to launch exploits and write your own Metasploit modules -Automate social-engineering attacks -Bypass antivirus software -Turn access to one machine into total control of the enterprise in the post exploitation phase You'll even explore writing your own exploits. Then it's on to mobile hacking—Weidman's particular area of research—with her tool, the Smartphone Pentest Framework. With its collection of hands-on lessons that cover key tools and strategies, Penetration Testing is the introduction that every aspiring hacker needs. *The Pentester Blueprint* Phillip L. Wylie 2020-10-27 JUMPSTART YOUR NEW AND EXCITING CAREER AS A PENETRATION TESTER The Pentester Blueprint: Your Guide to Being a Pentester offers readers a chance to delve deeply into the world of the ethical, or "white-hat" hacker. Accomplished pentester and author Phillip L. Wylie and cybersecurity researcher Kim Crawley walk you through the basic and advanced topics necessary to understand how to make a career out of finding vulnerabilities in systems, networks, and applications. You'll learn about the role of a penetration tester, what a pentest involves, and the prerequisite knowledge you'll need to start the educational journey of becoming a pentester. Discover how to develop a plan by assessing your current skillset and finding a starting place to begin growing your knowledge and skills. Finally, find out how to become employed as a pentester by using social media, networking strategies, and community involvement. Perfect for IT workers and entry-level information security professionals, The Pentester Blueprint also belongs on the bookshelves of anyone seeking to transition to the exciting and in-demand field of penetration testing. Written in a highly approachable and accessible style, The Pentester Blueprint avoids unnecessarily technical lingo in favor of concrete advice and practical strategies to help you get your start in pentesting. This book will teach you: The foundations of pentesting, including basic IT skills like operating systems, networking, and security systems The development of hacking skills and a hacker mindset Where to find educational options, including college and university classes, security training providers, volunteer work, and self-study Which certifications and degrees are most useful for gaining employment as a pentester How to get experience in the pentesting field, including labs, CTFs, and bug bounties

**Ethical Hacking** Daniel Graham 2021-09-21 A hands-on guide to hacking computer systems from the ground up, from capturing traffic to crafting sneaky, successful trojans. A crash course in modern hacking techniques, Ethical Hacking is already being used to prepare the next generation of offensive security experts. In its many hands-on labs, you'll explore crucial skills for any aspiring penetration tester, security researcher, or malware analyst. You'll begin with the basics: capturing a victim's network traffic with an ARP spoofing attack and then viewing it in Wireshark. From there, you'll deploy reverse shells that let you remotely run commands on a victim's computer, encrypt files by writing your own ransomware in Python, and fake emails like the ones used in phishing attacks. In advanced chapters, you'll learn how to fuzz for new vulnerabilities, craft trojans and rootkits, exploit websites with SQL injection, and escalate your privileges to extract credentials, which you'll use to traverse a private network. You'll work with a wide range of professional penetration testing tools—and learn to write your own tools in Python—as you practice tasks like: • Deploying the Metasploit framework's reverse shells and embedding them in innocent-seeming files • Capturing passwords in a corporate Windows network using Mimikatz • Scanning (almost) every device on the internet to find potential victims • Installing Linux rootkits that modify a victim's operating system • Performing advanced Cross-Site Scripting (XSS) attacks that execute sophisticated JavaScript payloads Along the way, you'll gain a foundation in the relevant computing technologies. Discover how advanced fuzzers work behind the scenes, learn how internet traffic gets encrypted, explore the inner mechanisms of nation-state malware like Drovorub, and much more. Developed with feedback from cybersecurity students, Ethical Hacking addresses contemporary issues in the field not often covered in other books and will prepare you for a career in penetration testing. Most importantly, you'll be able to think like an ethical hacker: someone who can carefully analyze systems and creatively gain access to them.

**Advanced Penetration Testing** Wil Allsopp 2017-02-27 Build a better defense against motivated, organized, professional attacks Advanced Penetration Testing: Hacking the World's Most Secure Networks takes hacking far beyond Kali linux and Metasploit to provide a more complex attack simulation. Featuring techniques not taught in any certification prep or covered by common defensive scanners, this book integrates social engineering, programming, and vulnerability exploits into a multidisciplinary approach for targeting and compromising high security environments. From discovering and creating attack vectors, and moving unseen through a target enterprise, to establishing command and exfiltrating data—even from organizations without a direct Internet connection—this guide contains the crucial techniques that provide a more accurate picture of your system's defense. Custom coding examples use VBA, Windows Scripting Host, C, Java, JavaScript, Flash, and more, with coverage of standard library applications and the use of scanning tools to bypass common defensive measures. Typical penetration testing consists of low-level hackers attacking a system with a list of known vulnerabilities, and defenders preventing those hacks using an equally well-known list of defensive scans. The professional hackers and nation states on the forefront of today's threats operate at a much more complex level—and this book shows you how to defend your high security network. Use targeted social engineering pretexts to create the initial compromise Leave a command and control structure in place for long-term access Escalate privilege and breach networks, operating systems, and trust structures Infiltrate further using harvested credentials while expanding control Today's threats are organized, professionally-run, and very much for-profit. Financial institutions, health care organizations, law enforcement, government agencies, and other high-value targets need to harden their IT infrastructure and human capital against targeted advanced attacks from motivated professionals. Advanced Penetration Testing goes beyond Kali linux and Metasploit and to provide you advanced pen testing for high security networks.

**The Art of Network Penetration Testing** Royce Davis 2020-12-29 The Art of Network Penetration Testing is a guide to simulating an internal security breach. You'll take on the role of the attacker and work through every stage of a professional pentest, from information gathering to seizing control of a system and owning the network. Summary Penetration testing is about more than just getting through a perimeter firewall. The biggest security threats are inside the network, where attackers can rampage through sensitive data by exploiting weak access controls and poorly patched software. Designed for up-and-coming security professionals, The Art of Network Penetration Testing teaches you how to take over an enterprise network from the inside. It lays out every stage of an internal security assessment step-by-step, showing you how to identify weaknesses before a malicious invader can do real damage. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Penetration testers uncover security gaps by attacking networks exactly like malicious intruders do. To become a world-class pentester, you need to master offensive security concepts, leverage a proven methodology, and practice, practice, practice. Th is book delivers insights from security expert Royce Davis, along with a virtual testing environment you can use to hone your skills. About the book The Art of Network Penetration Testing is a guide to simulating an internal security breach. You'll take on the role of the attacker and work through every stage of a professional pentest, from information gathering to seizing control of a system and owning the network. As you brute force passwords, exploit unpatched services, and elevate network level privileges, you'll learn where the weaknesses are—and how to take advantage of them. What's inside Set up a virtual pentest lab Exploit Windows and Linux network vulnerabilities Establish persistent re-entry to compromised targets Detail your findings in an engagement report About the reader For tech professionals. No security experience required. About the author Royce Davis has orchestrated hundreds of penetration tests, helping to secure many of the largest companies in the world. Table of Contents 1 Network Penetration Testing PHASE 1 - INFORMATION GATHERING 2 Discovering network hosts 3 Discovering network services 4 Discovering network vulnerabilities PHASE 2 - FOCUSED PENETRATION 5 Attacking vulnerable web services 6 Attacking vulnerable database services 7 Attacking unpatched services PHASE 3 - POST-EXPLOITATION AND PRIVILEGE ESCALATION 8 Windows post-exploitation 9 Linux or UNIX post-exploitation 10 Controlling the entire network PHASE 4 - DOCUMENTATION 11 Post-engagement cleanup 12 Writing a solid pentest deliverable

**Hands on Hacking** Matthew Hickey 2020-09-16 A fast, hands-on introduction to offensive hacking techniques Hands-On Hacking teaches readers to see through the eyes of their adversary and apply hacking techniques to better understand real-world risks to computer networks and data. Readers will benefit from the author's years of experience in the field hacking into computer networks and ultimately training others in the art of cyber-attacks. This book holds no punches and explains the tools, tactics and procedures used by ethical hackers and criminal crackers alike. We will take you on a journey through a hacker's perspective when focused on the computer infrastructure of a target company, exploring how to access the servers and data. Once the information gathering stage is complete, you'll look for flaws and their known exploits—including tools developed by real-world government financed state-actors. An introduction to the same hacking techniques that malicious hackers will use against an organization Written by infosec experts with proven history of publishing vulnerabilities and highlighting security flaws Based on the tried and tested material used to train hackers all over the world in the art of breaching networks Covers the fundamental basics of how computer networks are inherently vulnerable to attack, teaching the student how to apply hacking skills to uncover vulnerabilities We cover topics of breaching a company from the external network perimeter, hacking internal enterprise systems and web application vulnerabilities. Delving into the basics of exploitation with real-world practical examples, you won't find any hypothetical academic only attacks here. From start to finish this book will take the student through the steps necessary to breach an organization to improve its security. Written by world-renowned cybersecurity experts and educators, Hands-On Hacking teaches entry-level professionals seeking to learn ethical hacking techniques. If you are looking to understand penetration testing and ethical hacking, this book takes you from basic methods to advanced techniques in a structured learning format.

**Metasploit** David Kennedy 2011-07-15 The Metasploit Framework makes discovering, exploiting, and sharing vulnerabilities quick and relatively painless. But while Metasploit is used by security professionals everywhere, the tool can be hard to grasp for first-time users. Metasploit: The Penetration Tester's Guide fills this gap by teaching you how to harness the Framework and interact with the vibrant community of Metasploit contributors. Once you've built your foundation for penetration testing, you'll learn the Framework's conventions, interfaces, and module system as you launch simulated attacks. You'll move on to advanced penetration testing techniques, including network reconnaissance and enumeration, client-side attacks, wireless attacks, and targeted social-engineering attacks. Learn how to: -Find and exploit unmaintained, misconfigured, and unpatched systems -Perform reconnaissance and find valuable information about your target -Bypass anti-virus technologies and circumvent security controls -Integrate Nmap, NeXpose, and Nessus with Metasploit to automate discovery -Use the Meterpreter shell to launch further attacks from inside the network -Harness standalone Metasploit utilities, third-party tools, and plug-ins -Learn how to write your own Meterpreter post exploitation modules and scripts You'll even touch on exploit discovery for zero-day research, write a fuzzer, port existing exploits into the Framework, and learn how to cover your tracks. Whether your goal is to secure your own networks or to put someone else's to the test, Metasploit: The Penetration Tester's Guide will take you there and beyond.

**Mobile Application Penetration Testing** Vijay Kumar Velu 2016-03-11 Explore real-world threat scenarios, attacks on mobile applications, and ways to counter them About This Book Gain insights into the current threat landscape of mobile applications in particular Explore the different options that are available on mobile platforms and prevent circumventions made by attackers This is a step-by-step guide to setting up your own mobile penetration testing environment Who This Book Is For If you are a mobile application evangelist, mobile application developer, information security practitioner, penetration tester on infrastructure web applications, an application security professional, or someone who wants to learn mobile application security as a career, then this book is for you. This book will provide you with all the skills you need to get started with Android and iOS pen-testing. What You Will Learn Gain an in-depth understanding of Android and iOS architecture and the latest changes Discover how to work with different tool suites to assess any application Develop different strategies and techniques to connect to a mobile device Create a foundation for mobile application security principles Grasp techniques to attack different components of an Android device and the different functionalities of an iOS device Get to know secure development strategies for both iOS and Android applications Gain an understanding of threat modeling mobile applications Get an in-depth understanding of both Android and iOS implementation vulnerabilities and how to provide counter-measures while developing a mobile app In Detail Mobile security has come a long way over the last few years. It has transitioned from "should it be done?" to "it must be done!" Alongside the growing number of devices and applications, there is also a growth in the volume of Personally identifiable information (PII), Financial Data, and much more. This data needs to be secured. This is why Pen-testing is so important to modern application developers. You need to know how to secure user data, and find vulnerabilities and loopholes in your application that might lead to security breaches. This book gives you the necessary skills to security test your mobile applications as a beginner, developer, or security practitioner. You'll start by discovering the internal components of an Android and an iOS application. Moving ahead, you'll understand the inter-process working of these applications. Then you'll set up a test environment for this application using various tools to identify the loopholes and vulnerabilities in the structure of the applications. Finally, after collecting all information about these security loop holes, we'll start securing our applications from these threats. Style and approach This is an easy-to-follow guide full of hands-on examples of real-world attack simulations. Each topic is explained in context with respect to testing, and for the more inquisitive, there are more details on the concepts and techniques used for different platforms.

**Practical Web Penetration Testing** Gus Khawaja 2018-06-22 Web Applications are the core of any business today, and the need for specialized Application Security experts is increasing these days. Using this book, you will be able to learn Application Security testing and understand how to analyze a web application, conduct a web intrusion test, and a network infrastructure test.

**Penetration Testing Essentials** Sean-Philip Oriyano 2016-11-15 Your pen testing career begins here, with a solid foundation in essential skills and concepts Penetration Testing Essentials provides a starting place for professionals and beginners looking to learn more about penetration testing for cybersecurity. Certification eligibility requires work experience—but before you get that experience, you need a basic understanding of the technical and behavioral ways attackers compromise security, and the tools and techniques you'll use to discover the weak spots before others do. You'll learn information gathering techniques, scanning and enumeration, how to target wireless networks, and much more as you build your pen tester skill set. You'll learn how to break in, look around, get out, and cover your tracks, all without ever being noticed. Pen testers are tremendously important to data security, so they need to be sharp and well-versed in technique, but they also need to work smarter than the average hacker. This book set you on the right path, with expert instruction from a veteran IT security expert with multiple security certifications. IT Security certifications have stringent requirements and demand a complex body of knowledge. This book lays the groundwork for any IT professional hoping to move into a cybersecurity career by developing a robust pen tester skill set. Learn the fundamentals of security and cryptography Master breaking, entering, and maintaining access to a system Escape and evade detection while covering your tracks Build your pen testing lab and the essential toolbox Start developing the tools and mindset you need to become experienced in pen testing today.

**Penetration Testing For Dummies** Robert Shimonski 2020-03-27 Target, test, analyze, and report on security vulnerabilities with pen testing Pen Testing is necessary for companies looking to target, test, analyze, and patch the security vulnerabilities from hackers attempting to break into and compromise their organizations data. It takes a person with hacking skills to look for the weaknesses that make an organization susceptible to hacking. Pen Testing For Dummies aims to equip IT enthusiasts at various levels with the basic knowledge of pen testing. It is the go-to book for those who have some IT experience but desire more knowledge of how to gather intelligence on a target, learn the steps for mapping out a test, and discover best practices for analyzing, solving, and reporting on vulnerabilities. The different phases of a pen test from pre-engagement to completion Threat modeling and understanding risk When to apply vulnerability management vs penetration testing Ways to keep your pen testing skills sharp, relevant, and at the top of the game Get ready to gather intelligence, discover the steps for mapping out tests, and analyze and report results!

**Penetration Testing with Kali Linux** Pranav Joshi 2021-07-31 Perform effective and efficient penetration testing in an enterprise scenario KEY FEATURES ● Understand the penetration testing process using a highly customizable modular framework. ● Exciting use-cases demonstrating every action of penetration testing on target systems. ● Equipped with proven techniques and best practices from seasoned pen-testing practitioners. ● Experience-driven from actual penetration testing activities from multiple MNCs. ● Covers a distinguished approach to assess vulnerabilities and extract insights for further investigation. DESCRIPTION This book is designed to introduce the topic of penetration testing using a structured and easy-to-learn process-driven framework. Understand the theoretical aspects of penetration testing and create a penetration testing lab environment consisting of various targets to learn and practice your skills. Learn to comfortably navigate the Kali Linux and perform administrative activities, get to know shell

scripting, and write simple scripts to effortlessly run complex commands and automate repetitive testing tasks. Explore the various phases of the testing framework while practically demonstrating the numerous tools and techniques available within Kali Linux. Starting your journey from gathering initial information about the targets and performing enumeration to identify potential weaknesses and sequentially building upon this knowledge to refine the attacks and utilize weaknesses to fully compromise the target machines. The authors of the book lay a particularly strong emphasis on documentation and the importance of generating crisp and concise reports which keep the various stakeholders' requirements at the center stage. **WHAT YOU WILL LEARN** ● Understand the Penetration Testing Process and its various phases. ● Perform practical penetration testing using the various tools available in Kali Linux. ● Get to know the process of Penetration Testing and set up the Kali Linux virtual environment. ● Perform active and passive reconnaissance. ● Learn to execute deeper analysis of vulnerabilities and extract exploit codes. ● Learn to solve challenges while performing penetration testing with expert tips. **WHO THIS BOOK IS FOR** This book caters to all IT professionals with a basic understanding of operating systems, networking, and Linux can use this book to build a skill set for performing real-world penetration testing. **TABLE OF CONTENTS** 1. The Basics of Penetration Testing 2. Penetration Testing Lab 3. Finding Your Way Around Kali Linux 4. Understanding the PT Process and Stages 5. Planning and Reconnaissance 6. Service Enumeration and Scanning 7. Vulnerability Research 8. Exploitation 9. Post Exploitation 10. Reporting

**Social Engineering Penetration Testing** Gavin Watson 2014-04-11 Social engineering attacks target the weakest link in an organization's security human beings. Everyone knows these attacks are effective, and everyone knows they are on the rise. Now, Social Engineering Penetration Testing gives you the practical methodology and everything you need to plan and execute a social engineering penetration test and assessment. You will gain fascinating insights into how social engineering techniques including email phishing, telephone pretexting, and physical vectors can be used to elicit information or manipulate individuals into performing actions that may aid in an attack. Using the book's easy-to-understand models and examples, you will have a much better understanding of how best to defend against these attacks. The authors of Social Engineering Penetration Testing show you hands-on techniques they have used at RandomStorm to provide clients with valuable results that make a real difference to the security of their businesses. You will learn about the differences between social engineering pen tests lasting anywhere from a few days to several months. The book shows you how to use widely available open-source tools to conduct your pen tests, then walks you through the practical steps to improve defense measures in

response to test results. Understand how to plan and execute an effective social engineering assessment. Learn how to configure and use the open-source tools available for the social engineer. Identify parts of an assessment that will most benefit time-critical engagements. Learn how to design target scenarios, create plausible attack situations, and support various attack vectors with technology. Create an assessment report, then improve defense measures in response to test results. **Advanced Infrastructure Penetration Testing** Chiheb Chebbi 2018-02-26 A highly detailed guide to performing powerful attack vectors in many hands-on scenarios and defending significant security flaws in your company's infrastructure. Key Features Advanced exploitation techniques to breach modern operating systems and complex network devices. Learn about Docker breakouts, Active Directory delegation, and CRON jobs. Practical use cases to deliver an intelligent endpoint-protected system. Book Description It has always been difficult to gain hands-on experience and a comprehensive understanding of advanced penetration testing techniques and vulnerability assessment and management. This book will be your one-stop solution to compromising complex network devices and modern operating systems. This book provides you with advanced penetration testing techniques that will help you exploit databases, web and application servers, switches or routers, Docker, VLAN, VoIP, and VPN. With this book, you will explore exploitation abilities such as offensive PowerShell tools and techniques, CI servers, database exploitation, Active Directory delegation, kernel exploits, cron jobs, VLAN hopping, and Docker breakouts. Moving on, this book will not only walk you through managing vulnerabilities, but will also teach you how to ensure endpoint protection. Toward the end of this book, you will also discover post-exploitation tips, tools, and methodologies to help your organization build an intelligent security system. By the end of this book, you will have mastered the skills and methodologies needed to breach infrastructures and provide complete endpoint protection for your system. What you will learn Exposure to advanced infrastructure penetration testing techniques and methodologies. Gain hands-on experience of penetration testing in Linux system vulnerabilities and memory exploitation. Understand what it takes to break into enterprise networks. Learn to secure the configuration management environment and continuous delivery pipeline. Gain an understanding of how to exploit networks and IoT devices. Discover real-world, post-exploitation techniques and countermeasures. Who this book is for If you are a system administrator, SOC analyst, penetration tester, or a network engineer and want to take your penetration testing skills and security knowledge to the next level, then this book is for you. Some prior experience with penetration testing tools and knowledge of Linux and Windows command-line syntax is beneficial.