Penetration Tester Apos S Open Source Toolkit 3rd Edition

#penetration testing tools #open source security #ethical hacking toolkit #vulnerability assessment guide #cyber security resources

Explore the comprehensive world of ethical hacking with the 3rd Edition of the Penetration Tester's Open Source Toolkit. This essential guide delves into a wide array of open-source tools, providing practical insights for effective penetration testing and vulnerability assessment. Designed for both aspiring and experienced security professionals, it's your go-to resource for mastering cyber security tools and techniques.

Penetration Tester's Open Source Toolkit

Continuing a tradition of excellent training on open source tools, Penetration Tester’s Open Source Toolkit, Fourth Edition is a great reference to the open source tools available today and teaches you how to use them by demonstrating them in real-world examples. This book expands upon existing documentation so that a professional can get the most accurate and in-depth test results possible. Real-life scenarios are a major focus so that the reader knows which tool to use and how to use it for a variety of situations. This updated edition covers the latest technologies and attack vectors, including industry specific case studies and complete laboratory setup. 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 work as well or better than commercial tools and can be modified by the user for each situation if needed. Many tools, even ones that cost thousands of dollars, do not come with any type of instruction on how and in which situations the penetration tester can best use them. Penetration Tester's Open Source Toolkil, Fourth Edition bridges this gap providing the critical information that you need. Details current open source penetration tools Presents core technologies for each type of testing and the best tools for the job New to this edition: expanded wireless pen testing coverage to include Bluetooth, coverage of cloud computing and virtualization, new tools, and the latest updates to tools, operating systems, and techniques Includes detailed laboratory environment setup, new real-world examples, and industry-specific case studies

Penetration Tester's Open Source Toolkit

Penetration testing a network requires a delicate balance of art and science. A penetration tester must be creative enough to think outside of the box to determine the best attack vector into his own network, and also be expert in using the literally hundreds of tools required to execute the plan. This second volume adds over 300 new pentesting applications included with BackTrack 2 to the pen tester's toolkit. It includes the latest information on Snort, Nessus, Wireshark, Metasploit, Kismet and all of the other major Open Source platforms. • Perform Network Reconnaissance Master the objectives, methodology, and tools of the least understood aspect of a penetration test. • Demystify Enumeration and Scanning Identify the purpose and type of the target systems, obtain specific information about the versions of the services that are running on the systems, and list the targets and services. • Hack Database Services Understand and identify common database service vulnerabilities, discover database services, attack database authentication mechanisms, analyze the contents of the database, and use the database

to obtain access to the host operating system. • Test Web Servers and Applications Compromise the Web server due to vulnerabilities on the server daemon itself, its unhardened state, or vulnerabilities within the Web applications. • Test Wireless Networks and Devices Understand WLAN vulnerabilities, attack WLAN encryption, master information gathering tools, and deploy exploitation tools. • Examine Vulnerabilities on Network Routers and Switches Use Traceroute, Nmap, ike-scan, Cisco Torch, Finger, Nessus, onesixtyone, Hydra, Ettercap, and more to attack your network devices. • Customize BackTrack 2 Torque BackTrack 2 for your specialized needs through module management, unique hard drive installations, and USB installations. • Perform Forensic Discovery and Analysis with BackTrack 2 Use BackTrack in the field for forensic analysis, image acquisition, and file carving. • Build Your Own PenTesting Lab Everything you need to build your own fully functional attack lab.

Penetration Tester's Open Source Toolkit

Penetration testing a network requires a delicate balance of art and science. A penetration tester must be creative enough to think outside of the box to determine the best attack vector into his own network, and also be expert in using the literally hundreds of tools required to execute the plan. This book provides both the art and the science. The authors of the book are expert penetration testers who have developed many of the leading pen testing tools; such as the Metasploit framework. The authors allow the reader “inside their heads to unravel the mysteries of thins like identifying targets, enumerating hosts, application fingerprinting, cracking passwords, and attacking exposed vulnerabilities. Along the way, the authors provide an invaluable reference to the hundreds of tools included on the bootable-Linux CD for penetration testing. * Covers both the methodology of penetration testing and all of the tools used by malicious hackers and penetration testers * The book is authored by many of the tool developers themselves * This is the only book that comes packaged with the "Auditor Security Collection"; a bootable Linux CD with over 300 of the most popular open source penetration testing tools

Coding for Penetration Testers

Coding for Penetration Testers: Building Better Tools, Second Edition provides readers with an understanding of the scripting languages that are commonly used when developing tools for penetration testing, also guiding users through specific examples of custom tool development and the situations where such tools might be used. While developing a better understanding of each language, the book presents real-world scenarios and tool development that can be incorporated into a tester's toolkit. This completely updated edition focuses on an expanded discussion on the use of Powershell, and includes practical updates to all tools and coverage. Discusses the use of various scripting languages in penetration testing Presents step-by-step instructions on how to build customized penetration testing tools using Perl, Ruby, Python, and other languages Provides a primer on scripting, including, but not limited to, web scripting, scanner scripting, and exploitation scripting Includes all-new coverage of Powershell

Penetration Tester's Open Source Toolkit

Provides information on penetration testing and how to keep a computer and a computer network secure.

Mastering Kali Linux for Advanced Penetration Testing

A practical guide to testing your infrastructure security with Kali Linux, the preferred choice of pentesters and hackers Key FeaturesEmploy advanced pentesting techniques with Kali Linux to build highly secured systemsDiscover various stealth techniques to remain undetected and defeat modern infrastructuresExplore red teaming techniques to exploit secured environmentBook Description This book takes you, as a tester or security practitioner, through the reconnaissance, vulnerability assessment, exploitation, privilege escalation, and post-exploitation activities used by pentesters. To start with, you'll use a laboratory environment to validate tools and techniques, along with an application that supports a collaborative approach 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 learnConfigure the most effective Kali Linux tools to test infrastructure securityEmploy stealth to avoid detection in the infrastructure being testedRecognize when stealth attacks are being used against your infrastructureExploit networks and data systems using wired and wireless networks as well as web servicesIdentify and download valuable data from target systemsMaintain access to compromised systemsUse social engineering to compromise the weakest part of the network - the end usersWho 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.

Google Hacking for Penetration Testers

Google is the most popular search engine ever created, 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, Third Edition, shows you how security professionals and system administratord manipulate Google to find this sensitive information and "self-police" their own organizations. You 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 Facebook, LinkedIn, and more for passive reconnaissance. This third edition includes completely updated content throughout and all new hacks such as Google scripting and using Google hacking with other search engines and APIs. Noted author Johnny Long, founder of Hackers for Charity, gives you all the tools you need to conduct the ultimate open source reconnaissance and penetration testing. Third edition of the seminal work on Google hacking Google hacking continues to be a critical phase of reconnaissance in penetration testing and Open Source Intelligence (OSINT) Features cool new hacks such as finding reports generated by security scanners and back-up files, finding sensitive info in WordPress and SSH configuration, and all new chapters on scripting Google hacks for better searches as well as using Google hacking with other search engines and APIs

Penetration Testing: A Survival Guide

A complete pentesting guide facilitating smooth backtracking for working hackers About This Book Conduct network testing, surveillance, pen testing and forensics on MS Windows using Kali Linux Gain a deep understanding of the flaws in web applications and exploit them in a practical manner Pentest Android apps and perform various attacks in the real world using real case studies Who This Book Is For This course is for anyone who wants to learn about security. Basic knowledge of Android programming would be a plus. What You Will Learn Exploit several common Windows network vulnerabilities Recover lost files, investigate successful hacks, and discover hidden data in innocent-looking files Expose vulnerabilities present in web servers and their applications using server-side attacks Use SQL and cross-site scripting (XSS) attacks Check for XSS flaws using the burp suite proxy Acquaint yourself with the fundamental building blocks of Android Apps in the right way Take a look at how your personal data can be stolen by malicious attackers See how developers make mistakes that allow attackers to steal data from phones In Detail The need for penetration testers has grown well over what the IT industry ever anticipated. Running just a vulnerability scanner is no longer an effective method to determine whether a business is truly secure. This learning path will help you develop the most effective penetration testing skills to protect your Windows, web applications, and Android devices. The first module focuses on the Windows platform, which is one of the most common OSes, and managing its security spawned the discipline of IT security. Kali Linux is the premier platform for testing and maintaining Windows security. Employs the most advanced tools and techniques to reproduce the methods used by sophisticated hackers. In this module first,you'll be introduced to Kali's top ten tools and other useful reporting tools. Then, you will find your way around your target network and determine known vulnerabilities so you can exploit a system remotely. You'll not only learn to penetrate in the machine, but will also learn to work with Windows privilege escalations. The second module will help you get to grips with the tools used in Kali Linux 2.0 that relate to web application hacking. You will get to know about scripting and input validation flaws, AJAX, and security issues related to AJAX. You will also use an automated technique called fuzzing so you can identify flaws in a web application. Finally,

you'll understand the web application vulnerabilities and the ways they can be exploited. In the last module, you'll get started with Android security. Android, being the platform with the largest consumer base, is the obvious primary target for attackers. You'll begin this journey with the absolute basics and will then slowly gear up to the concepts of Android rooting, application security assessments, malware, infecting APK files, and fuzzing. You'll gain the skills necessary to perform Android application vulnerability assessments and to create an Android pentesting lab. This Learning Path is a blend of content from the following Packt products: Kali Linux 2: Windows Penetration Testing by Wolf Halton and Bo Weaver Web Penetration Testing with Kali Linux, Second Edition by Juned Ahmed Ansari Hacking Android by Srinivasa Rao Kotipalli and Mohammed A. Imran Style and approach This course uses easy-to-understand yet professional language for explaining concepts to test your network's security.

Web Penetration Testing with Kali Linux

Build your defense against web attacks with Kali Linux, including command injection flaws, crypto implementation layers, and web application security holes Key Features Know how to set up your lab with Kali Linux Discover the core concepts of web penetration testing Get the tools and techniques you need with Kali Linux Book Description Web Penetration Testing with Kali Linux - Third Edition shows you how to set up a lab, helps you understand the nature and mechanics of attacking websites, and explains classical attacks in great depth. This edition is heavily updated for the latest Kali Linux changes and the most recent attacks. Kali Linux shines when it comes to client-side attacks and fuzzing in particular. From the start of the book, you'll be given a thorough grounding in the concepts of hacking and penetration testing, and you'll see the tools used in Kali Linux that relate to web application hacking. You'll gain a deep understanding of classicalSQL, command-injection flaws, and the many ways to exploit these flaws. Web penetration testing also needs a general overview of client-side attacks, which is rounded out by a long discussion of scripting and input validation flaws. There is also an important chapter on cryptographic implementation flaws, where we discuss the most recent problems with cryptographic layers in the networking stack. The importance of these attacks cannot be overstated, and defending against them is relevant to most internet users and, of course, penetration testers. At the end of the book, you'll use an automated technique called fuzzing to identify flaws in a web application. Finally, you'll gain an understanding of web application vulnerabilities and the ways they can be exploited using the tools in Kali Linux. What you will learn Learn how to set up your lab with Kali Linux Understand the core concepts of web penetration testing Get to know the tools and techniques you need to use with Kali Linux Identify the difference between hacking a web application and network hacking Expose vulnerabilities present in web servers and their applications using server-side attacks Understand the different techniques used to identify the flavor of web applications See standard attacks such as exploiting cross-site request forgery and cross-site scripting flaws Get an overview of the art of client-side attacks Explore automated attacks such as fuzzing web applications Who this book is for Since this book sets out to cover a large number of tools and security fields, it can work as an introduction to practical security skills for beginners in security. In addition, web programmers and also system administrators would benefit from this rigorous introduction to web penetration testing. Basic system administration skills are necessary, and the ability to read code is a must.

Metasploit Toolkit for Penetration Testing, Exploit Development, and Vulnerability Research

Metasploit Toolkit for Penetration Testing, Exploit Development, and Vulnerability Research is the first book available for the Metasploit Framework (MSF), which is the attack platform of choice for one of the fastest growing careers in IT security: Penetration Testing. The book will provide professional penetration testers and security researchers with a fully integrated suite of tools for discovering, running, and testing exploit code. This book discusses how to use the Metasploit Framework (MSF) as an exploitation platform. The book begins with a detailed discussion of the three MSF interfaces: msfweb, msfconsole, and msfcli .This chapter demonstrates all of the features offered by the MSF as an exploitation platform. With a solid understanding of MSF’s capabilities, the book then details techniques for dramatically reducing the amount of time required for developing functional exploits. By working through a real-world vulnerabilities against popular closed source applications, the reader will learn how to use the tools and MSF to quickly build reliable attacks as standalone exploits. The section will also explain how to integrate an exploit directly into the Metasploit Framework by providing a line-by-line analysis of an integrated exploit module. Details as to how the Metasploit engine drives the behind-the-scenes exploitation process will be covered, and along the way the reader will come to understand the advantages of exploitation frameworks. The final section of the book examines the Meterpreter payload system and teaches readers to develop completely new extensions that

will integrate fluidly with the Metasploit Framework. A November 2004 survey conducted by "CSO Magazine" stated that 42% of chief security officers considered penetration testing to be a security priority for their organizations The Metasploit Framework is the most popular open source exploit platform, and there are no competing books

Kali Linux 2: Windows Penetration Testing

Kali Linux: a complete pentesting toolkit facilitating smooth backtracking for working hackers About This Book Conduct network testing, surveillance, pen testing and forensics on MS Windows using Kali Linux Footprint, monitor, and audit your network and investigate any ongoing infestations Customize Kali Linux with this professional guide so it becomes your pen testing toolkit Who This Book Is For If you are a working ethical hacker who is looking to expand the offensive skillset with a thorough understanding of Kali Linux, then this is the book for you. Prior knowledge about Linux operating systems and the BASH terminal emulator along with Windows desktop and command line would be highly beneficial. What You Will Learn Set up Kali Linux for pen testing Map and enumerate your Windows network Exploit several common Windows network vulnerabilities Attack and defeat password schemes on Windows Debug and reverse-engineer Windows programs Recover lost files, investigate successful hacks and discover hidden data in innocent-looking files Catch and hold admin rights on the network, and maintain backdoors on the network after your initial testing is done In Detail Microsoft Windows is one of the two most common OS and managing its security has spawned the discipline of IT security. Kali Linux is the premier platform for testing and maintaining Windows security. Kali is built on the Debian distribution of Linux and shares the legendary stability of that OS. This lets you focus on using the network penetration, password cracking, forensics tools and not the OS. This book has the most advanced tools and techniques to reproduce the methods used by sophisticated hackers to make you an expert in Kali Linux penetration testing. First, you are introduced to Kali's top ten tools and other useful reporting tools. Then, you will find your way around your target network and determine known vulnerabilities to be able to exploit a system remotely. Next, you will prove that the vulnerabilities you have found are real and exploitable. You will learn to use tools in seven categories of exploitation tools. Further, you perform web access exploits using tools like websploit and more. Security is only as strong as the weakest link in the chain. Passwords are often that weak link. Thus, you learn about password attacks that can be used in concert with other approaches to break into and own a network. Moreover, you come to terms with network sniffing, which helps you understand which users are using services you can exploit, and IP spoofing, which can be used to poison a system's DNS cache. Once you gain access to a machine or network, maintaining access is important. Thus, you not only learn penetrating in the machine you also learn Windows privilege's escalations. With easy to follow step-by-step instructions and support images, you will be able to quickly pen test your system and network. Style and approach This book is a hands-on guide for Kali Linux pen testing. This book will provide all the practical knowledge needed to test your network's security using a proven hacker's methodology. The book uses easy-to-understand yet professional language for explaining concepts.

Kali Linux 2018: Windows Penetration Testing

Become the ethical hacker you need to be to protect your network Key FeaturesSet up, configure, and run a newly installed Kali-Linux 2018.xFootprint, monitor, and audit your network and investigate any ongoing infestationsCustomize Kali Linux with this professional guide so it becomes your pen testing toolkitBook Description Microsoft Windows is one of the two most common OSes, and managing its security has spawned the discipline of IT security. Kali Linux is the premier platform for testing and maintaining Windows security. Kali is built on the Debian distribution of Linux and shares the legendary stability of that OS. This lets you focus on using the network penetration, password cracking, and forensics tools, and not the OS. This book has the most advanced tools and techniques to reproduce the methods used by sophisticated hackers to make you an expert in Kali Linux penetration testing. You will start by learning about the various desktop environments that now come with Kali. The book covers network sniffers and analysis tools to uncover the Windows protocols in use on the network. You will see several tools designed to improve your average in password acquisition, from hash cracking, online attacks, offline attacks, and rainbow tables to social engineering. It also demonstrates several use cases for Kali Linux tools like Social Engineering Toolkit, and Metasploit, to exploit Windows vulnerabilities. Finally, you will learn how to gain full system-level access to your compromised system and then maintain that access. By the end of this book, you will be able to quickly pen test your system and network using easy-to-follow instructions and support images. What you will learnLearn advanced set up techniques for Kali and the Linux operating systemUnderstand footprinting and reconnaissance of

networksDiscover new advances and improvements to the Kali operating systemMap and enumerate your Windows networkExploit several common Windows network vulnerabilitiesAttack and defeat password schemes on WindowsDebug and reverse engineer Windows programsRecover lost files, investigate successful hacks, and discover hidden dataWho this book is for If you are a working ethical hacker who is looking to expand the offensive skillset with a thorough understanding of Kali Linux, then this is the book for you. Prior knowledge about Linux operating systems, BASH terminal, and Windows command line would be highly beneficial.

InfoSec Career Hacking: Sell Your Skillz, Not Your Soul

“InfoSec Career Hacking starts out by describing the many, different InfoSec careers available including Security Engineer, Security Analyst, Penetration Tester, Auditor, Security Administrator, Programmer, and Security Program Manager. The particular skills required by each of these jobs will be described in detail, allowing the reader to identify the most appropriate career choice for them. Next, the book describes how the reader can build his own test laboratory to further enhance his existing skills and begin to learn new skills and techniques. The authors also provide keen insight on how to develop the requisite soft skills to migrate form the hacker to corporate world. * The InfoSec job market will experience explosive growth over the next five years, and many candidates for these positions will come from thriving, hacker communities * Teaches these hackers how to build their own test networks to develop their skills to appeal to corporations and government agencies * Provides specific instructions for developing time, management, and personal skills to build a successful InfoSec career

Penetration Testing Fundamentals

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

Mastering Kali Linux for Web Penetration Testing

Master the art of exploiting advanced web penetration techniques with Kali Linux 2016.2 About This Book Make the most out of advanced web pen-testing techniques using Kali Linux 2016.2 Explore how Stored (a.k.a. Persistent) XSS attacks work and how to take advantage of them Learn to secure your application by performing advanced web based attacks. Bypass internet security to traverse from the web to a private network. Who This Book Is For This book targets IT pen testers, security consultants, and ethical hackers who want to expand their knowledge and gain expertise on advanced web penetration techniques. Prior knowledge of penetration testing would be beneficial. What You Will Learn Establish a fully-featured sandbox for test rehearsal and risk-free investigation of applications Enlist open-source information to get a head-start on enumerating account credentials, mapping potential dependencies, and discovering unintended backdoors and exposed information Map, scan, and spider web applications using nmap/zenmap, nikto, arachni, webscarab, w3af, and NetCat for more accurate characterization Proxy web transactions through tools such as Burp Suite, OWASP's ZAP tool, and Vega to uncover application weaknesses and manipulate responses Deploy SQL injection, cross-site scripting, Java vulnerabilities, and overflow attacks using Burp Suite, websploit, and SQLMap

to test application robustness Evaluate and test identity, authentication, and authorization schemes and sniff out weak cryptography before the black hats do In Detail You will start by delving into some common web application architectures in use, both in private and public cloud instances. You will also learn about the most common frameworks for testing, such as OWASP OGT version 4, and how to use them to guide your efforts. In the next section, you will be introduced to web pentesting with core tools and you will also see how to make web applications more secure through rigorous penetration tests using advanced features in open source tools. The book will then show you how to better hone your web pentesting skills in safe environments that can ensure low-risk experimentation with the powerful tools and features in Kali Linux that go beyond a typical script-kiddie approach. After establishing how to test these powerful tools safely, you will understand how to better identify vulnerabilities, position and deploy exploits, compromise authentication and authorization, and test the resilience and exposure applications possess. By the end of this book, you will be well-versed with the web service architecture to identify and evade various protection mechanisms that are used on the Web today. You will leave this book with a greater mastery of essential test techniques needed to verify the secure design, development, and operation of your customers' web applications. Style and approach An advanced-level guide filled with real-world examples that will help you take your web application's security to the next level by using Kali Linux 2016.2.

Mastering Kali Linux for Advanced Penetration Testing

Master key approaches used by real attackers to perform advanced pentesting in tightly secured infrastructure, cloud and virtualized environments, and devices, and learn the latest phishing and hacking techniques Key FeaturesExplore red teaming and play the hackers game to proactively defend your infrastructureUse OSINT, Google dorks, Nmap, recon-nag, and other tools for passive and active reconnaissanceLearn about the latest email, Wi-Fi, and mobile-based phishing techniquesBook Description Remote working has given hackers plenty of opportunities as more confidential information is shared over the internet than ever before. In this new edition of Mastering Kali Linux for Advanced Penetration Testing, you'll learn an offensive approach to enhance your penetration testing skills by testing the sophisticated tactics employed by real hackers. You'll go through laboratory integration to cloud services so that you learn another dimension of exploitation that is typically forgotten during a penetration test. You'll explore different ways of installing and running Kali Linux in a VM and containerized environment and deploying vulnerable cloud services on AWS using containers, exploiting misconfigured S3 buckets to gain access to EC2 instances. This book delves into passive and active reconnaissance, from obtaining user information to large-scale port scanning. Building on this, different vulnerability assessments are explored, including threat modeling. See how hackers use lateral movement, privilege escalation, and command and control (C2) on compromised systems. By the end of this book, you'll have explored many advanced pentesting approaches and hacking techniques employed on networks, IoT, embedded peripheral devices, and radio frequencies. What you will learnExploit networks using wired/wireless networks, cloud infrastructure, and web servicesLearn embedded peripheral device, Bluetooth, RFID, and IoT hacking techniquesMaster the art of bypassing traditional antivirus and endpoint detection and response (EDR) toolsTest for data system exploits using Metasploit, PowerShell Empire, and CrackMapExecPerform cloud security vulnerability assessment and exploitation of security misconfigurationsUse bettercap and Wireshark for network sniffingImplement complex attacks with Metasploit, Burp Suite, and OWASP ZAPWho this book is for This fourth edition is for security analysts, pentesters, ethical hackers, red team operators, and security consultants wanting to learn and optimize infrastructure/application/cloud security using advanced Kali Linux features. Prior penetration testing experience and basic knowledge of ethical hacking will help you make the most of this book.

Web Penetration Testing with Kali Linux

Testing web security is best done through simulating an attack. Kali Linux lets you do this to professional standards and this is the book you need to be fully up-to-speed with this powerful open-source toolkit. Overview Learn key reconnaissance concepts needed as a penetration tester Attack and exploit key features, authentication, and sessions on web applications Learn how to protect systems, write reports, and sell web penetration testing services In Detail Kali Linux is built for professional penetration testing and security auditing. It is the next-generation of BackTrack, the most popular open-source penetration toolkit in the world. Readers will learn how to think like real attackers, exploit systems, and expose vulnerabilities. Even though web applications are developed in a very secure environment and have an intrusion detection system and firewall in place to detect and prevent any malicious activity, open ports

are a pre-requisite for conducting online business. These ports serve as an open door for attackers to attack these applications. As a result, penetration testing becomes essential to test the integrity of web-applications. Web Penetration Testing with Kali Linux is a hands-on guide that will give you step-by-step methods on finding vulnerabilities and exploiting web applications. "Web Penetration Testing with Kali Linux" looks at the aspects of web penetration testing from the mind of an attacker. It provides real-world, practical step-by-step instructions on how to perform web penetration testing exercises. You will learn how to use network reconnaissance to pick your targets and gather information. Then, you will use server-side attacks to expose vulnerabilities in web servers and their applications. Client attacks will exploit the way end users use web applications and their workstations. You will also learn how to use open source tools to write reports and get tips on how to sell penetration tests and look out for common pitfalls. On the completion of this book, you will have the skills needed to use Kali Linux for web penetration tests and expose vulnerabilities on web applications and clients that access them. What you will learn from this book Perform vulnerability reconnaissance to gather information on your targets Expose server vulnerabilities and take advantage of them to gain privileged access Exploit client-based systems using web application protocols Learn how to use SQL and cross-site scripting (XSS) attacks Steal authentications through session hijacking techniques Harden systems so other attackers do not exploit them easily Generate reports for penetration testers Learn tips and trade secrets from real world penetration testers Approach "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."

Metasploit

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.

Kali Linux 2 – Assuring Security by Penetration Testing

Achieve the gold standard in penetration testing with Kali using this masterpiece, now in its third edition! About This Book Get a rock-solid insight into penetration testing techniques and test your corporate network against threats like never before Formulate your pentesting strategies by relying on the most up-to-date and feature-rich Kali version in town—Kali Linux 2 (aka Sana). Experience this journey with new cutting-edge wireless penetration tools and a variety of new features to make your pentesting experience smoother Who This Book Is For If you are an IT security professional or a student with basic knowledge of Unix/Linux operating systems, including an awareness of information security factors, and you want to use Kali Linux for penetration testing, this book is for you. What You Will Learn Find out to download and install your own copy of Kali Linux Properly scope and conduct the initial stages of a penetration test Conduct reconnaissance and enumeration of target networks Exploit and gain a foothold on a target system or network Obtain and crack passwords Use the Kali Linux NetHunter install to conduct wireless penetration testing Create proper penetration testing reports In Detail Kali Linux is a comprehensive penetration testing platform with advanced tools to identify, detect, and exploit the vulnerabilities uncovered in the target network environment. With Kali Linux, you can apply appropriate testing methodology with defined business objectives and a scheduled test plan, resulting in a successful penetration testing project engagement. Kali Linux – Assuring Security by Penetration Testing is a fully focused, structured book providing guidance on developing practical penetration

testing skills by demonstrating cutting-edge hacker tools and techniques with a coherent, step-by-step approach. This book offers you all of the essential lab preparation and testing procedures that reflect real-world attack scenarios from a business perspective, in today's digital age. Style and approach This practical guide will showcase penetration testing through cutting-edge tools and techniques using a coherent, step-by-step approach.

Effective Python Penetration Testing

Pen test your system like a pro and overcome vulnerabilities by leveraging Python scripts, libraries, and tools About This Book Learn to utilize your Python scripting skills to pentest a computer system, network, and web-application Get proficient at the art of assessing vulnerabilities by conducting effective penetration testing This is the ultimate guide that teaches you how to use Python to protect your systems against sophisticated cyber attacks Who This Book Is For This book is ideal for those who are comfortable with Python or a similar language and need no help with basic programming concepts, but want to understand the basics of penetration testing and the problems pentesters face. What You Will Learn Write Scapy scripts to investigate network traffic Get to know application fingerprinting techniques with Python Understand the attack scripting techniques Write fuzzing tools with pentesting requirements Learn basic attack scripting methods Utilize cryptographic toolkits in Python Automate pentesting with Python tools and libraries In Detail Penetration testing is a practice of testing a computer system, network, or web application to find weaknesses in security that an attacker can exploit. Effective Python Penetration Testing will help you utilize your Python scripting skills to safeguard your networks from cyberattacks. We will begin by providing you with an overview of Python scripting and penetration testing. You will learn to analyze network traffic by writing Scapy scripts and will see how to fingerprint web applications with Python libraries such as ProxMon and Spynner. Moving on, you will find out how to write basic attack scripts, and will develop debugging and reverse engineering skills with Python libraries. Toward the end of the book, you will discover how to utilize cryptography toolkits in Python and how to automate Python tools and libraries. Style and approach This is an expert's guide to Python with a practical based approach, where each chapter will help you improve your penetration testing skills using Python to become a master pen tester.

Learning Python Web Penetration Testing

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 Scrappy 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.

Python Penetration Testing Cookbook

Over 50+ hands-on recipes to help you pen test networks using Python, discover vulnerabilities, and find a recovery path About This Book Learn to detect and avoid various types of attack that put system privacy at risk Enhance your knowledge of wireless application concepts and information gathering through practical recipes Learn a pragmatic way to penetration-test using Python, build efficient code, and save time Who This Book Is For If you are a developer with prior knowledge of using Python for penetration testing and if you want an overview of scripting tasks to consider while penetration testing, this book will give you a lot of useful code for your toolkit. What You Will Learn Learn to configure Python in different environment setups. Find an IP address from a web page using BeautifulSoup and Scrapy Discover different types of packet sniffing script to sniff network packets Master layer-2 and TCP/ IP attacks Master techniques for exploit development for Windows and Linux Incorporate various network- and packet-sniffing techniques using Raw sockets and Scrapy In Detail Penetration testing is the use of tools and code to attack a system in order to assess its vulnerabilities to external threats. Python allows pen testers to create their own tools. Since Python is a highly valued pen-testing language, there are many native libraries and Python bindings available specifically for pen-testing tasks. Python Penetration Testing Cookbook begins by teaching you how to extract information from web pages. You will learn how to build an intrusion detection system using network sniffing techniques. Next, you will find out how to scan your networks to ensure performance and quality, and how to carry out wireless pen testing on your network to avoid cyber attacks. After that, we'll discuss the different kinds of network attack. Next, you'll get to grips with designing your own torrent detection program. We'll take you through common vulnerability scenarios and then cover buffer overflow exploitation so you can detect insecure coding. Finally, you'll master PE code injection methods to safeguard your network. Style and approach This book takes a recipe-based approach to solving real-world problems in pen testing. It is structured in stages from the initial assessment of a system through exploitation to post-exploitation tests, and provides scripts that can be used or modified for in-depth penetration testing.

Web Penetration Testing with Kali Linux - Third Edition

Build your defense against web attacks with Kali Linux, including command injection flaws, crypto implementation layers, and web application security holes Key Features Know how to set up your lab with Kali Linux Discover the core concepts of web penetration testing Get the tools and techniques you need with Kali Linux Book Description Web Penetration Testing with Kali Linux - Third Edition shows you how to set up a lab, helps you understand the nature and mechanics of attacking websites, and explains classical attacks in great depth. This edition is heavily updated for the latest Kali Linux changes and the most recent attacks. Kali Linux shines when it comes to client-side attacks and fuzzing in particular. From the start of the book, you'll be given a thorough grounding in the concepts of hacking and penetration testing, and you'll see the tools used in Kali Linux that relate to web application hacking. You'll gain a deep understanding of classicalSQL, command-injection flaws, and the many ways to exploit these flaws. Web penetration testing also needs a general overview of client-side attacks, which is rounded out by a long discussion of scripting and input validation flaws. There is also an important chapter on cryptographic implementation flaws, where we discuss the most recent problems with cryptographic layers in the networking stack. The importance of these attacks cannot be overstated, and defending against them is relevant to most internet users and, of course, penetration testers. At the end of the book, you'll use an automated technique called fuzzing to identify flaws in a web application. Finally, you'll gain an understanding of web application vulnerabilities and the ways they can be exploited using the tools in Kali Linux. What you will learn Learn how to set up your lab with Kali Linux Understand the core concepts of web penetration testing Get to know the tools and techniques you need to use with Kali Linux Identify the difference between hacking a web application and network hacking Expose vulnerabilities present in web servers and their applications using server-side attacks Understand the different techniques used to identify the flavor of web applications See standard attacks such as exploiting cross-site request forgery and cross-site scripting flaws Get an overview of the art of client-side attacks Explore automated attacks such as fuzzing web applications Who this book is for Since this book sets out to cover a large number of tools and security fields, it can work as an introduction to practical security skills for beginners in security. In addition, web programmers and also system administrators would benefit from this rigorous introduction to web penetration testing. Basic system administration skills are necessary, and the ability to read code is a must.

Penetration Testing with BackBox

This practical book outlines the steps needed to perform penetration testing using BackBox. It explains common penetration testing scenarios and gives practical explanations applicable to a real-world

setting. This book is written primarily for security experts and system administrators who have an intermediate Linux capability. However, because of the simplicity and user-friendly design, it is also suitable for beginners looking to understand the principle steps of penetration testing.

Google Hacking for Penetration Testers

Google, the most popular search engine worldwide, provides web surfers with an easy-to-use guide to the Internet, with web and image searches, language translation, and a range of features that make web navigation simple enough for even the novice user. What many users don’t realize is that the deceptively simple components that make Google so easy to use are the same features that generously unlock security flaws for the malicious hacker. Vulnerabilities in website security can be discovered through Google hacking, techniques applied to the search engine by computer criminals, identity thieves, and even terrorists to uncover secure information. This book beats Google hackers to the punch, equipping web administrators with penetration testing applications to ensure their site is invulnerable to a hacker’s search. Penetration Testing with Google Hacks explores the explosive growth of a technique known as "Google Hacking." When the modern security landscape includes such heady topics as "blind SQL injection" and "integer overflows," it's refreshing to see such a deceptively simple tool bent to achieve such amazing results; this is hacking in the purest sense of the word. Readers will learn how to torque Google to detect SQL injection points and login portals, execute port scans and CGI scans, fingerprint web servers, locate incredible information caches such as firewall and IDS logs, password databases, SQL dumps and much more - all without sending a single packet to the target! Borrowing the techniques pioneered by malicious "Google hackers," this talk aims to show security practitioners how to properly protect clients from this often overlooked and dangerous form of information leakage. *First book about Google targeting IT professionals and security leaks through web browsing. *Author Johnny Long, the authority on Google hacking, will be speaking about "Google Hacking" at the Black Hat 2004 Briefing. His presentation on penetrating security flaws with Google is expected to create a lot of buzz and exposure for the topic. *Johnny Long's Web site hosts the largest repository of Google security exposures and is the most popular destination for security professionals who want to learn about the dark side of Google.

Metasploit Penetration Testing Cookbook

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, highjack 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.

Penetration Testing with Kali Linux

Testing web security is best done through simulating an attack. Kali Linux lets you do this to professional standards and this is the book you need to be fully up-to-speed with this powerful open-source toolkit. Overview Learn key reconnaissance concepts needed as a penetration tester Attack and exploit key features, authentication, and sessions on web applications Learn how to protect systems, write reports, and sell web penetration testing services In Detail Kali Linux is built for professional penetration testing and security auditing. It is the next-generation of BackTrack, the most popular open-source penetration toolkit in the world. Readers will learn how to think like real attackers, exploit systems, and expose vulnerabilities. Even though web applications are developed in a very secure environment and have an intrusion detection system and firewall in place to detect and prevent any malicious activity, open ports are a pre-requisite for conducting online business. These ports serve as an open door for attackers to attack these applications. As a result, penetration testing becomes essential to test the integrity of web-applications. Web Penetration Testing with Kali Linux is a hands-on guide that will give you step-by-step methods on finding vulnerabilities and exploiting web applications. "Penetration Testing with Kali Linux" looks at the aspects of web penetration testing from the mind of an attacker. It provides real-world, practical step-by-step instructions on how to perform web penetration testing exercises. You will learn how to use network reconnaissance to pick your targets and gather information. Then, you will use server-side attacks to expose vulnerabilities in web servers and their applications. Client attacks will exploit the way end users use web applications and their workstations. You will also learn how to use open source tools to write reports and get tips on how to sell penetration tests and look out for common pitfalls. On the completion of this book, you will have the skills needed to use Kali Linux for web penetration tests and expose vulnerabilities on web applications and clients that access them. What you will learn from this book Perform vulnerability reconnaissance to gather information on your targets Expose server vulnerabilities and take advantage of them to gain privileged access Exploit client-based systems using web application protocols Learn how to use SQL and cross-site scripting (XSS) attacks Steal authentications through session hijacking techniques Harden systems so other attackers do not exploit them easily Generate reports for penetration testers Learn tips and trade secrets from real world penetration testers Approach "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.

Hacking Web Intelligence

Open source intelligence (OSINT) and web reconnaissance are rich topics for infosec professionals looking for the best ways to sift through the abundance of information widely available online. In many cases, the first stage of any security assessment—that is, reconnaissance—is not given enough attention by security professionals, hackers, and penetration testers. Often, the information openly present is as critical as the confidential data. Hacking Web Intelligence shows you how to dig into the Web and uncover the information many don't even know exists. The book takes a holistic approach that is not only about using tools to find information online but also how to link all the information and transform it into presentable and actionable intelligence. You will also learn how to secure your information online to prevent it being discovered by these reconnaissance methods. Hacking Web Intelligence is an in-depth technical reference covering the methods and techniques you need to unearth open source information from the Internet and utilize it for the purpose of targeted attack during a security assessment. This book will introduce you to many new and leading-edge reconnaissance, information gathering, and open source intelligence methods and techniques, including metadata extraction tools, advanced search engines, advanced browsers, power searching methods, online anonymity tools such as TOR and i2p, OSINT tools such as Maltego, Shodan, Creepy, SearchDiggity, Recon-ng, Social Network Analysis (SNA), Darkweb/Deepweb, data visualization, and much more. Provides a holistic approach to OSINT and Web recon, showing you how to fit all the data together into actionable intelligence Focuses on hands-on tools such as TOR, i2p, Maltego, Shodan, Creepy, SearchDiggity, Recon-ng, FOCA, EXIF, Metagoofil, MAT, and many more Covers key technical topics such as metadata searching, advanced browsers and power searching, online anonymity, Darkweb / Deepweb, Social Network Analysis (SNA), and how to manage, analyze, and visualize the data you

gather Includes hands-on technical examples and case studies, as well as a Python chapter that shows you how to create your own information-gathering tools and modify existing APIs

Hands-On AWS Penetration Testing with Kali Linux

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 learnFamiliarize yourself with and pentest the most common external-facing AWS servicesAudit your own infrastructure and identify flaws, weaknesses, and loopholesDemonstrate the process of lateral and vertical movement through a partially compromised AWS accountMaintain stealth and persistence within a compromised AWS accountMaster a hands-on approach to pentestingDiscover a number of automated tools to ease the process of continuously assessing and improving the security stance of an AWS infrastructureWho 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.

Kali Linux 2018

Become the ethical hacker you need to be to protect your network Key Features Set up, configure, and run a newly installed Kali-Linux 2018.x Footprint, monitor, and audit your network and investigate any ongoing infestations Customize Kali Linux with this professional guide so it becomes your pen testing toolkit Book Description Microsoft Windows is one of the two most common OSes, and managing its security has spawned the discipline of IT security. Kali Linux is the premier platform for testing and maintaining Windows security. Kali is built on the Debian distribution of Linux and shares the legendary stability of that OS. This lets you focus on using the network penetration, password cracking, and forensics tools, and not the OS. This book has the most advanced tools and techniques to reproduce the methods used by sophisticated hackers to make you an expert in Kali Linux penetration testing. You will start by learning about the various desktop environments that now come with Kali. The book covers network sniffers and analysis tools to uncover the Windows protocols in use on the network. You will see several tools designed to improve your average in password acquisition, from hash cracking, online attacks, offline attacks, and rainbow tables to social engineering. It also demonstrates several use cases for Kali Linux tools like Social Engineering Toolkit, and Metasploit, to exploit Windows vulnerabilities. Finally, you will learn how to gain full system-level access to your compromised system and then maintain that access. By the end of this book, you will be able to quickly pen test your system and network using easy-to-follow instructions and support images. What you will learn Learn advanced set up techniques for Kali and the Linux operating system Understand footprinting and reconnaissance of networks Discover new advances and improvements to the Kali operating system Map and enumerate your Windows network Exploit several common Windows network vulnerabilities Attack and defeat password schemes on Windows Debug and reverse engineer Windows programs Recover lost files, investigate successful hacks, and discover hidden data Who this book is for If you are a working ethical hacker who is looking to expand the offensive skillset with a thorough understanding of Kali Linux, then

this is the book for you. Prior knowledge about Linux operating systems, BASH terminal, and Windows command line would be highly beneficial.

Python for Offensive PenTest

Your one-stop guide to using Python, creating your own hacking tools, and making the most out of resources available for this programming language Key Features Comprehensive information on building a web application penetration testing framework using Python Master web application penetration testing using the multi-paradigm programming language Python Detect vulnerabilities in a system or application by writing your own Python scripts Book Description Python is an easy-to-learn and cross-platform programming language that has unlimited third-party libraries. Plenty of open source hacking tools are written in Python, which can be easily integrated within your script. This book is packed with step-by-step instructions and working examples to make you a skilled penetration tester. It is divided into clear bite-sized chunks, so you can learn at your own pace and focus on the areas of most interest to you. This book will teach you how to code a reverse shell and build an anonymous shell. You will also learn how to hack passwords and perform a privilege escalation on Windows with practical examples. You will set up your own virtual hacking environment in VirtualBox, which will help you run multiple operating systems for your testing environment. By the end of this book, you will have learned how to code your own scripts and mastered ethical hacking from scratch. What you will learn Code your own reverse shell (TCP and HTTP) Create your own anonymous shell by interacting with Twitter, Google Forms, and SourceForge Replicate Metasploit features and build an advanced shell Hack passwords using multiple techniques (API hooking, keyloggers, and clipboard hijacking) Exfiltrate data from your target Add encryption (AES, RSA, and XOR) to your shell to learn how cryptography is being abused by malware Discover privilege escalation on Windows with practical examples Countermeasures against most attacks Who this book is for This book is for ethical hackers; penetration testers; students preparing for OSCP, OSCE, GPEN, GXPN, and CEH; information security professionals; cybersecurity consultants; system and network security administrators; and programmers who are keen on learning all about penetration testing.

Learn Penetration Testing

Get up to speed with various penetration testing techniques and resolve security threats of varying complexity Key FeaturesEnhance your penetration testing skills to tackle security threatsLearn to gather information, find vulnerabilities, and exploit enterprise defensesNavigate secured systems with the most up-to-date version of Kali Linux (2019.1) and Metasploit (5.0.0)Book Description Sending information via the internet is not entirely private, as evidenced by the rise in hacking, malware attacks, and security threats. With the help of this book, you'll learn crucial penetration testing techniques to help you evaluate enterprise defenses. You'll start by understanding each stage of pentesting and deploying target virtual machines, including Linux and Windows. Next, the book will guide you through performing intermediate penetration testing in a controlled environment. With the help of practical use cases, you'll also be able to implement your learning in real-world scenarios. By studying everything from setting up your lab, information gathering and password attacks, through to social engineering and post exploitation, you'll be able to successfully overcome security threats. The book will even help you leverage the best tools, such as Kali Linux, Metasploit, Burp Suite, and other open source pentesting tools to perform these techniques. Toward the later chapters, you'll focus on best practices to quickly resolve security threats. By the end of this book, you'll be well versed with various penetration testing techniques so as to be able to tackle security threats effectively What you will learnPerform entry-level penetration tests by learning various concepts and techniquesUnderstand both common and not-so-common vulnerabilities from an attacker's perspectiveGet familiar with intermediate attack methods that can be used in real-world scenariosUnderstand how vulnerabilities are created by developers and how to fix some of them at source code levelBecome well versed with basic tools for ethical hacking purposesExploit known vulnerable services with tools such as MetasploitWho this book is for If you’re just getting started with penetration testing and want to explore various security domains, this book is for you. Security professionals, network engineers, and amateur ethical hackers will also find this book useful. Prior knowledge of penetration testing and ethical hacking is not necessary.

Mastering Kali Linux for Advanced Penetration Testing

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.

Mastering Kali Linux for Advanced Penetration Testing - Second Edition

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 costsWho This Book Is ForPenetration 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 usersIn DetailThis 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 testingStyle and approachAn advanced level tutorial that follows a practical approach and proven methods to maintain top notch security of your networks.

Penetration Testing with Raspberry Pi - Second Edition

Learn the art of building a low-cost, portable hacking arsenal using Raspberry Pi 3 and Kali Linux 2About This Book* Quickly turn your Raspberry Pi 3 into a low-cost hacking tool using Kali Linux 2* Confidently prevent various network security attacks in order to protect your confidential data* Use Raspberry Pi 3 as honeypots to warn you that hackers are on your wire.Who This Book Is ForIf you are a computer enthusiast desired to learn advanced hacking techniques using the Raspberry Pi 3 as your pentesting toolbox, then this book is for you. Prior knowledge about networking would be an advantage.What you will learn* Install and tune Kali Linux 2 on a Raspberry Pi 3 for hacking* Learn how to manage and monitor the Raspberry Pi for remote hacking scenarios* Learn how to store and offload pentest data from the Raspberry Pi 3* Plan and perform man-in-the-middle attacks and bypass advanced encryption techniques* Compromise systems using various exploits and tools using Kali Linux 2* Bypass security defenses and remove data off a target network* Develop a command and control system to manage remotely placed Raspberry Pis* Turn a Raspberry Pi 3 into a honeypot to capture sensitive informationIn DetailWe will be leveraging the latest credit-card sized Raspberry Pi 3 and teach you how to create a portable, low cost hacking tool using Kali Linux 2.This book will start with installing and tuning Kali Linux 2 on Raspberry Pi 3 so that you can get started with penetration testing. You will be exposed to various network security scenarios like wireless security, scanning network packets in order to detect any issues in the network along with capturing sensitive data. You will also learn to plan and perform various attacks like man-in-the-middle, password cracking, bypassing SSL encryption, compromising systems using various toolkits and many more. Finally, this book will teach you how to bypass security defenses, turn your Pi 3 into a honeypot along with developing a command and control system to manage remotely placed Raspberry Pi 3.By the end of the book, you will be able to turn Raspberry Pi 3 into a hacking arsenal to leverage the most popular open source toolkit, Kali Linux 2.

Hacking and Penetration Testing with Low Power Devices

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 Pen 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

Kali Linux Web Penetration Testing Cookbook

Discover the most common web vulnerabilities and prevent them from becoming a threat to your site's security Key Features Familiarize yourself with the most common web vulnerabilities Conduct a preliminary assessment of attack surfaces and run exploits in your lab Explore new tools in the Kali Linux ecosystem for web penetration testing Book Description Web applications are a huge point of attack for malicious hackers and a critical area for security professionals and penetration testers to lock down and secure. Kali Linux is a Linux-based penetration testing platform that provides a broad array of testing tools, many of which can be used to execute web penetration testing. Kali Linux Web Penetration Testing Cookbook gives you the skills you need to cover every stage of a penetration test

– from gathering information about the system and application, to identifying vulnerabilities through manual testing. You will also cover the use of vulnerability scanners and look at basic and advanced exploitation techniques that may lead to a full system compromise. You will start by setting up a testing laboratory, exploring the latest features of tools included in Kali Linux and performing a wide range of tasks with OWASP ZAP, Burp Suite and other web proxies and security testing tools. As you make your way through the book, you will learn how to use automated scanners to find security flaws in web applications and understand how to bypass basic security controls. In the concluding chapters, you will look at what you have learned in the context of the Open Web Application Security Project (OWASP) and the top 10 web application vulnerabilities you are most likely to encounter, equipping you with the ability to combat them effectively. By the end of this book, you will have acquired the skills you need to identify, exploit, and prevent web application vulnerabilities. What you will learn Set up a secure penetration testing laboratory Use proxies, crawlers, and spiders to investigate an entire website Identify cross-site scripting and client-side vulnerabilities Exploit vulnerabilities that allow the insertion of code into web applications Exploit vulnerabilities that require complex setups Improve testing efficiency using automated vulnerability scanners Learn how to circumvent security controls put in place to prevent attacks Who this book is for Kali Linux Web Penetration Testing Cookbook is for IT professionals, web developers, security enthusiasts, and security professionals who want an accessible reference on how to find, exploit, and prevent security vulnerabilities in web applications. The basics of operating a Linux environment and prior exposure to security technologies and tools are necessary.

Penetration Testing for Jobseekers

Understand and Conduct Ethical Hacking and Security Assessments KEY FEATURES Ï Practical guidance on discovering, assessing, and mitigating web, network, mobile, and wireless vulnerabilities. Ï Experimentation with Kali Linux, Burp Suite, MobSF, Metasploit and Aircrack-suite. Ï In-depth explanation of topics focusing on how to crack ethical hacking interviews. DESCRIPTION Penetration Testing for Job Seekers is an attempt to discover the way to a spectacular career in cyber security, specifically penetration testing. This book offers a practical approach by discussing several computer and network fundamentals before delving into various penetration testing approaches, tools, and techniques. Written by a veteran security professional, this book provides a detailed look at the dynamics that form a person's career as a penetration tester. This book is divided into ten chapters and covers numerous facets of penetration testing, including web application, network, Android application, wireless penetration testing, and creating excellent penetration test reports. This book also shows how to set up an in-house hacking lab from scratch to improve your skills. A penetration tester's professional path, possibilities, average day, and day-to-day obstacles are all outlined to help readers better grasp what they may anticipate from a cybersecurity career. Using this book, readers will be able to boost their employability and job market relevance, allowing them to sprint towards a lucrative career as a penetration tester. WHAT YOU WILL LEARN ÏPerform penetration testing on web apps, networks, android apps, and wireless networks. ÏAccess to the most widely used penetration testing methodologies and standards in the industry. ÏUse an artistic approach to find security holes in source code. ÏLearn how to put together a high-quality penetration test report. Ï Popular technical interview questions on ethical hacker and pen tester job roles. Ï Exploration of different career options, paths, and possibilities in cyber security. WHO THIS BOOK IS FOR This book is for aspiring security analysts, pen testers, ethical hackers, anyone who wants to learn how to become a successful pen tester. A fundamental understanding of network principles and workings is helpful but not required. TABLE OF CONTENTS 1. Cybersecurity, Career Path, and Prospects 2. Introduction to Penetration Testing 3. Setting Up Your Lab for Penetration Testing 4. Web Application and API Penetration Testing 5. The Art of Secure Source Code Review 6. Penetration Testing Android Mobile Applications 7. Network Penetration Testing 8. Wireless Penetration Testing 9. Report Preparation and Documentation 10. A Day in the Life of a Pen Tester

Python Web Penetration Testing Cookbook

This book gives you an arsenal of Python scripts perfect to use or to customize your needs for each stage of the testing process. Each chapter takes you step by step through the methods of designing and modifying scripts to attack web apps. You will learn how to collect both open and hidden information from websites to further your attacks, identify vulnerabilities, perform SQL Injections, exploit cookies, and enumerate poorly configured systems. You will also discover how to crack encryption, create payloads

to mimic malware, and create tools to output your findings into presentable formats for reporting to your employers.

Penetration Testing with Raspberry Pi

Learn the art of building a low-cost, portable hacking arsenal using Raspberry Pi 3 and Kali Linux 2 About This Book Quickly turn your Raspberry Pi 3 into a low-cost hacking tool using Kali Linux 2 Protect your confidential data by deftly preventing various network security attacks Use Raspberry Pi 3 as honeypots to warn you that hackers are on your wire Who This Book Is For If you are a computer enthusiast who wants to learn advanced hacking techniques using the Raspberry Pi 3 as your pentesting toolbox, then this book is for you. Prior knowledge of networking and Linux would be an advantage. What You Will Learn Install and tune Kali Linux 2 on a Raspberry Pi 3 for hacking Learn how to store and offload pentest data from the Raspberry Pi 3 Plan and perform man-in-the-middle attacks and bypass advanced encryption techniques Compromise systems using various exploits and tools using Kali Linux 2 Bypass security defenses and remove data off a target network Develop a command and control system to manage remotely placed Raspberry Pis Turn a Raspberry Pi 3 into a honeypot to capture sensitive information In Detail This book will show you how to utilize the latest credit card sized Raspberry Pi 3 and create a portable, low-cost hacking tool using Kali Linux 2. You'll begin by installing and tuning Kali Linux 2 on Raspberry Pi 3 and then get started with penetration testing. You will be exposed to various network security scenarios such as wireless security, scanning network packets in order to detect any issues in the network, and capturing sensitive data. You will also learn how to plan and perform various attacks such as man-in-the-middle, password cracking, bypassing SSL encryption, compromising systems using various toolkits, and many more. Finally, you'll see how to bypass security defenses and avoid detection, turn your Pi 3 into a honeypot, and develop a command and control system to manage a remotely-placed Raspberry Pi 3. By the end of this book you will be able to turn Raspberry Pi 3 into a hacking arsenal to leverage the most popular open source toolkit, Kali Linux 2.0. Style and approach This concise and fast-paced guide will ensure you get hands-on with penetration testing right from the start. You will quickly install the powerful Kali Linux 2 on your Raspberry Pi 3 and then learn how to use and conduct fundamental penetration techniques and attacks.