Nmap User Guide

Hacking with Kali introduces you the most current distribution of the de facto standard tool for Linux pen testing. Starting with use of the Kali live CD and progressing through installation on hard drives, thumb drives and SD cards, author James Broad walks you through creating a custom version of the Kali live distribution. You'll learn how to configure networking components, storage devices and system services such as DHCP and web services. Once you're familiar with the basic components of the software, you'll learn how to use Kali through the phases of the penetration testing lifecycle; one major tool from each phase is explained. The book culminates with a chapter on reporting that will provide examples of documents used prior to, during and after the pen test. This guide will benefit information security professionals of all levels, hackers, systems administrators, network administrators, and beginning and intermediate professional pen testers, as well as students majoring in information security. Provides detailed explanations of the complete penetration testing lifecycle Complete linkage of the Kali information, resources and distribution downloads Hands-on exercises reinforce topics

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

This book is all about Nmap, a great tool for scanning networks. The author takes you through a series of steps to help you transition from Nmap beginner to an expert. The book covers everything about Nmap, from the basics to the complex aspects. Other than the command line Nmap, the author guides you on how to use Zenmap, which is the GUI version of Nmap. You will know the various kinds of vulnerabilities that can be detected with Nmap and how to detect them. You will also know how to bypass various network security mechanisms such as firewalls and intrusion detection systems using Nmap. The author also guides you on how to optimize the various Nmap parameters so as to get an optimal performance from Nmap. The book will familiarize you with various Nmap commands and know how to get various results by altering the scanning parameters and options. The author has added screenshots showing the outputs that you should get after executing various commands. Corresponding explanations have also been added. This book will help you to understand: - NMAP Fundamentals - Port Scanning Techniques - Host Scanning - Scan Time Reduction Techniques - Scanning Firewalls - OS Fingerprinting - Subverting Intrusion Detection Systems - Nmap Scripting Engine - Mail Server Auditing - Scanning for HeartBleed Bug - Scanning for SMB Vulnerabilities - ZeNmap GUI Guide - Server Penetration Topics include: network exploration, network scanning, gui programming, nmap network scanning, network security, nmap 6 cookbook, zeNmap.

Sidestep VoIP Catastrophe the Foolproof Hacking Exposed Way "This book illuminates how remote users can probe, sniff, and modify your phones, phone switches, and networks that offer VoIP services. Most importantly, the authors offer solutions to mitigate the risk of deploying VoIP technologies." --Ron Gula, CTO of Tenable Network Security Block debilitating VoIP attacks by learning how to look at your network and devices through the eyes of the malicious intruder. Hacking Exposed VoIP shows you, step-by-step, how online criminals perform reconnaissance, gain access, steal data, and penetrate vulnerable systems. All hardware-specific and network-centered security issues are covered alongside detailed countermeasures, in-depth examples, and hands-on implementation techniques. Inside, you'll learn how to defend against the latest DoS, man-in-the-middle, call flooding, eavesdropping, VoIP fuzzing, signaling and audio manipulation, Voice SPAM/SPIT, and voice phishing attacks. Find out how hackers footprint, scan, enumerate, and pilfer VoIP networks and hardware Fortify Cisco, Avaya, and Asterisk systems Prevent DNS poisoning, DHCP exhaustion, and ARP table manipulation Thwart number harvesting, call pattern tracking, and conversation eavesdropping Measure and maintain VoIP network quality of service and VoIP conversation quality Stop DoS and packet flood-based attacks from disrupting SIP proxies and phones Counter REGISTER hijacking, INVITE flooding, and BYE call teardown attacks Avoid insertion/mixing of malicious audio Learn about voice SPAM/SPIT and how to prevent it Defend against voice phishing and identity theft scams

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.

The Certified Ethical Hacker program began in 2003 and ensures that IT professionals apply security principles in the context of their daily job scope Presents critical information on footprinting, scanning, enumeration, system hacking, trojans and backdoors, sniffers, denial of service, social engineering, session hijacking, hacking Web servers, and more Discusses key areas such as Web application vulnerabilities, Web-based password cracking techniques, SQL injection, wireless hacking, viruses and worms, physical security, and Linux hacking Contains a CD-ROM that enables readers to prepare for the CEH exam by taking practice tests

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 Nmap 6 Cookbook provides simplified coverage of network scanning features available in the Nmap suite of utilities. Every Nmap feature is covered with visual examples to help you quickly understand and identify proper usage for practical results.Topics covered include:* Installation on Windows, Mac OS X, and Unix/Linux platforms* Basic and advanced scanning techniques* Network inventory and auditing* Firewall evasion techniques* Zenmap - A graphical front-end for Nmap* NSE - The Nmap Scripting Engine* Ndiff - The Nmap scan comparison utility* Ncat - A flexible networking utility* Nping - Ping on steroids

Nmap, or Network Mapper, is a free, open source tool that is available under the GNU General Public License as published by the Free Software Foundation. It is most often used by network administrators and IT security professionals to scan corporate networks, looking for live hosts, specific services, or specific operating systems. Part of the beauty of Nmap is its ability to create IP packets from scratch and send them out utilizing unique methodologies to perform the above-mentioned types of scans and more. This book provides comprehensive coverage of all Nmap features, including detailed, real-world case studies. • Understand Network Scanning Master networking and protocol fundamentals, network scanning techniques, common network scanning tools, along with network scanning and policies. • Get Inside Nmap Use Nmap in the enterprise, secure Nmap, optimize Nmap, and master advanced Nmap scanning techniques. • Install, Configure, and Optimize Nmap Deploy Nmap on Windows, Linux, Mac OS X, and install from source. • Take Control of Nmap with the Zenmap GUI Run Zenmap, manage Zenmap scans, build commands with the Zenmap command wizard, manage Zenmap profiles, and manage Zenmap results. • Run Nmap in the Enterprise Start Nmap scanning, discover hosts, port scan, detecting operating systems, and detect service and application versions • Raise those Fingerprints Understand the mechanics of Nmap OS fingerprinting, Nmap OS fingerprint scan as an administrative tool, and detect and evade the OS fingerprint scan. • “Tool around with Nmap Learn about Nmap add-on and helper tools: NDiff--Nmap diff, RNmap--Remote Nmap, Bilbo, Nmap-parser. • Analyze Real-World Nmap Scans Follow along with the authors to analyze real-world Nmap scans. • Master Advanced Nmap Scanning Techniques Torque Nmap for TCP scan flags customization, packet fragmentation, IP and MAC address spoofing, adding decoy scan source IP addresses, add random data to sent packets, manipulate time-to-live fields, and send packets with

bogus TCP or UDP checksums.
Master Wireshark to solve real-world security problems If you don’t already use Wireshark for a wide range of information security tasks, you will after this book. Mature and powerful, Wireshark is commonly used to find root cause of challenging network issues. This book extends that power to information security professionals, complete with a downloadable, virtual lab environment. Wireshark for Security Professionals covers both offensive and defensive concepts that can be applied to essentially any InfoSec role. Whether into network security, malware analysis, intrusion detection, or penetration testing, this book demonstrates Wireshark through relevant and useful examples. Master Wireshark through both lab scenarios and exercises. Early in the book, a virtual lab environment is provided for the purpose of getting hands-on experience with Wireshark. Wireshark is combined with two popular platforms: Kali, the security-focused Linux distribution, and the Metasploit Framework, the open-source framework for security testing. Lab-based virtual systems generate network traffic for analysis, investigation and demonstration. In addition to following along with the labs you will be challenged with end-of-chapter exercises to expand on covered material. Lastly, this book explores Wireshark with Lua, the light-weight programming language. Lua allows you to extend and customize Wireshark’s features for your needs as a security professional. Lua source code is available both in the book and online. Lua code and lab source code are available online through GitHub, which the book also introduces. The book’s final two chapters greatly draw on Lua and TShark, the command-line interface of Wireshark. By the end of the book you will gain the following: Master the basics of Wireshark Explore the virtual w4sp-lab environment that mimics a real-world network Gain experience using the Debian-based Kali OS among other systems Understand the technical details behind network attacks Execute exploitation and grasp offensive and defensive activities, exploring them through Wireshark Employ Lua to extend Wireshark features and create useful scripts To sum up, the book content, labs and online material, coupled with many referenced sources of PCAP traces, together present a dynamic and robust manual for information security professionals seeking to leverage Wireshark.
The official guide to the Nmap Security Scanner, a free and open source utility used by millions of people, suits all levels of security and networking professionals.
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.
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.

Nmap Network ScanningOfficial Nmap Project Guide to Network Discovery and Security ScanningNmap Project

If you want to learn to write your own scripts for the Nmap Scripting Engine, this is the book for you. It is perfect for network administrators, information security professionals, and even Internet enthusiasts who are familiar with Nmap.

A complete reference guide to mastering Nmap and its scripting engine, covering practical tasks for IT personnel, security engineers, system administrators, and application security enthusiasts Key Features Learn how to use Nmap and other tools from the Nmap family with the help of practical recipes Discover the latest and most powerful features of Nmap and the Nmap Scripting Engine Explore common security checks for applications, Microsoft Windows environments, SCADA, and mainframes Book Description Nmap is one of the most powerful tools for network discovery and security auditing used by millions of IT professionals, from system administrators to cybersecurity specialists. This third edition of the Nmap: Network Exploration and Security Auditing Cookbook introduces Nmap and its family - Ncat, Ncrack, Ndiff, Zenmap, and the Nmap Scripting Engine (NSE) - and guides you through numerous tasks that are relevant to security engineers in today's technology ecosystems. The book discusses some of the most common and useful tasks for scanning hosts, networks, applications, mainframes, Unix and Windows environments, and ICS/SCADA systems. Advanced Nmap users can benefit from this book by exploring the hidden functionalities within Nmap and its scripts as well as advanced workflows and configurations to fine-tune their scans. Seasoned users will find new applications and third-party tools that can help them manage scans and even start developing their own NSE scripts. Practical examples featured in a cookbook format make this book perfect for quickly remembering Nmap options, scripts and arguments, and more. By the end of this Nmap book, you will be able to successfully scan numerous hosts, exploit vulnerable areas, and gather valuable information. What you will learn Scan systems and check for the most common vulnerabilities Explore the most popular network protocols Extend existing scripts and write your own scripts and libraries Identify and scan critical ICS/SCADA systems Detect misconfigurations in web servers, databases, and mail servers Understand how to identify common weaknesses in Windows environments Optimize the performance and improve results of scans Who this book is for This Nmap cookbook is for IT personnel, security engineers, system administrators, application security enthusiasts, or anyone who wants to master Nmap and its scripting engine. This book is also recommended for anyone looking to learn about network security auditing, especially if they're interested in understanding common protocols and applications in modern systems. Advanced and seasoned Nmap users will also benefit by learning about new features, workflows, and tools. Basic knowledge of networking, Linux, and security concepts is required before taking up this book.

This book is for beginners who wish to start using Nmap, who have experience as a system administrator or of network engineering, and who wish to get started with Nmap.

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

Identify tools and techniques to secure and perform a penetration test on an AWS infrastructure using Kali Linux Key Features Efficiently perform penetration testing techniques on your public cloud instances Learn not only to cover loopholes but also to automate security monitoring and alerting within your cloud-based deployment pipelines A step-by-step guide that will help you leverage the most widely used security platform to secure your AWS Cloud environment Book Description The cloud is taking over the IT industry. Any organization housing a large amount of data or a large infrastructure has started moving cloud-ward — and AWS rules the roost when it comes to cloud service providers, with its closest competitor having less than half of its market share. This highlights the importance of security on the cloud, especially on AWS. While a lot has been said (and written) about how cloud environments can be secured, performing external security assessments in the form of pentests on AWS is still seen as a dark art. This book aims to help

pentesters as well as seasoned system administrators with a hands-on approach to pentesting the various cloud services provided by Amazon through AWS using Kali Linux. To make things easier for novice pentesters, the book focuses on building a practice lab and refining penetration testing with Kali Linux on the cloud. This is helpful not only for beginners but also for pentesters who want to set up a pentesting environment in their private cloud, using Kali Linux to perform a white-box assessment of their own cloud resources. Besides this, there is a lot of in-depth coverage of the large variety of AWS services that are often overlooked during a pentest — from serverless infrastructure to automated deployment pipelines. By the end of this book, you will be able to identify possible vulnerable areas efficiently and secure your AWS cloud environment. What you will learn Familiarize yourself with and pentest the most common external-facing AWS services Audit your own infrastructure and identify flaws, weaknesses, and loopholes Demonstrate the process of lateral and vertical movement through a partially compromised AWS account Maintain stealth and persistence within a compromised AWS account Master a hands-on approach to pentesting Discover a number of automated tools to ease the process of continuously assessing and improving the security stance of an AWS infrastructure Who this book is for If you are a security analyst or a penetration tester and are interested in exploiting Cloud environments to reveal vulnerable areas and secure them, then this book is for you. A basic understanding of penetration testing, cloud computing, and its security concepts is mandatory.

The all-in-one practical guide to supporting Cisco networks using freeware tools.

Authored by Roberto Ierusalimschy, the chief architect of the language, this volume covers all aspects of Lua 5---from the basics to its API with C---explaining how to make good use of its features and giving numerous code examples. (Computer Books)

This is the only book to clearly demonstrate how to get big dollar security for your network using freely available tools. This is a must have book for any company or person with a limited budget. Network security is in a constant struggle for budget to get things done. Upper management wants thing to be secure but doesn't want to pay for it. With this book as a guide, everyone can get what they want. The examples and information will be of immense value to every small business. It will explain security principles and then demonstrate how to achieve them using only freely available software. Teachers you how to implement best of breed security using tools for free Ideal for anyone recomending and implementing new technologies within the company

As protecting information becomes a rapidly growing concern for today's businesses, certifications in IT security have become highly desirable, even as the number of certifications has grown. Now you can set yourself apart with the Certified Ethical Hacker (CEH v10) certification. The CEH v10 Certified Ethical Hacker Study Guide offers a comprehensive overview of the CEH certification requirements using concise and easy-to-follow instruction. Chapters are organized by exam objective, with a handy section that maps each objective to its corresponding chapter, so you can keep track of your progress. The text provides thorough coverage of all topics, along with challenging chapter review questions and Exam Essentials, a key feature that identifies critical study areas. Subjects include intrusion detection, DDoS attacks, buffer overflows, virus creation, and more. This study guide goes beyond test prep, providing practical hands-on exercises to reinforce vital skills and real-world scenarios that put what you've learned into the context of actual job roles. Gain a unique certification that allows you to understand the mind of a hacker Expand your career opportunities with an IT certificate that satisfies the Department of Defense's 8570 Directive for Information Assurance positions Fully updated for the 2018 CEH v10 exam, including the latest developments in IT security Access the Sybex online learning center, with chapter review questions, full-length practice exams, hundreds of electronic flashcards, and a glossary of key terms Thanks to its clear organization, all-inclusive coverage, and practical instruction, the CEH v10 Certified Ethical Hacker Study Guide is an excellent resource for anyone who needs to understand the hacking process or anyone who wants to demonstrate their skills as a Certified Ethical Hacker.

The Red Team Field Manual (RTFM) is a no fluff, but thorough reference guide for serious Red Team members who routinely find themselves on a mission without Google or the time to scan through a man page. The RTFM contains the basic syntax for commonly used Linux and Windows command line tools, but it also encapsulates unique use cases for powerful tools such as Python and Windows PowerShell. The RTFM will repeatedly save you time looking up the hard to remember Windows nuances such as Windows wmic and dsquery command line tools, key registry values, scheduled tasks syntax, startup locations and Windows scripting. More importantly, it should teach you some new red team techniques.

There are hundreds--if not thousands--of techniques used to compromise both Windows and Unix-based systems. Malicious code and new exploit scripts are released on a daily basis, and each evolution becomes more and more sophisticated. Keeping up with the myriad of systems used by hackers in the wild is a formidable task, and scrambling to patch each potential vulnerability or address each new attack one-by-one is a bit like emptying the Atlantic with paper cup.If you're a network administrator, the pressure is on you to defend your systems from attack. But short of devoting your life to becoming a security expert, what can you do to ensure the safety of your mission critical systems? Where do you start?Using the steps laid out by professional security analysts and consultants to identify and assess risks, Network Security Assessment offers an efficient testing model that an administrator can adopt, refine, and reuse to create proactive defensive strategies to protect their systems from the threats that are out there, as well as those still being developed.This thorough and insightful guide covers offensive technologies by grouping and analyzing them at a higher level--from both an offensive and defensive standpoint--helping administrators design and deploy networks that are immune to offensive exploits, tools, and scripts. Network administrators who need to develop and implement a security assessment program will find everything they're looking for--a proven, expert-tested methodology on which to base their own comprehensive program--in

this time-saving new book.
Covers the most important and common configuration scenarios and features which will put you on track to start implementing ASA firewalls right away.
Linux Server Security has been written for Sysadmins, DevOps engineers, developers and other technical professionals that wish to improve their hands-on knowledge of securing what is now the most popular Operating System on the planet. This detailed book walks steadily through challenging scenarios so that the reader may increase their knowledge of a number of diverse security areas which a technical professional faces. The reader is already familiar with Linux as a bedrock of stability but sometimes frustrated with certain software packages and the way that they integrate with the Operating System and indeed other packages. Looking closely at a considered selection of security topics empowers the reader to continue their learning and make full use of Linux's rocksteady foundation. In addition to each of the varied subjects covered such as sophisticated attacks, penetration testing, launching attacks and making a server invisible the book is brimming with invaluable insights gleaned from hard-won, professional experience. Applicable to almost all of the popular Linux flavours, such as Debian, Red Hat, Ubuntu, Linux Mint and CentOS, Linux Server Security can also be used to reference other Unix-type systems with little modification. The reader will improve their practical knowhow and background knowledge in order to increase their ability to troubleshoot and ultimately solve the daily security challenges encountered by Sysadmins and DevOps engineers. Whether the aim is to further a career or bring more enjoyment to a hobby the powerful, newfound knowledge gleaned from this book will help the reader add to their technical arsenal.
Network Scanning Cookbook enables a reader to understand how to perform a Network Scan, which includes Discovery, Scanning, Enumeration, Vulnerability detection etc using scanning tools like Nessus and Nmap. If the reader is an auditor, they will be able to determine the security state of the client's network and recommend remediations accordingly.
Nmap is a well known security tool used by penetration testers and system administrators. The Nmap Scripting Engine (NSE) has added the possibility to perform additional tasks using the collected host information. Tasks like advanced fingerprinting and service discovery, information gathering, and detection of security vulnerabilities. "Nmap 6: Network exploration and security auditing cookbook" will help you master Nmap and its scripting engine. You will learn how to use this tool to do a wide variety of practical tasks for pentesting and network monitoring. Finally, after harvesting the power of NSE, you will also learn how to write your own NSE scripts. "Nmap 6: Network exploration and security auditing cookbook" is a book full of practical knowledge for every security consultant, administrator or enthusiast looking to master Nmap. The book overviews the most important port scanning and host discovery techniques supported by Nmap. You will learn how to detect mis-configurations in web, mail and database servers and also how to implement your own monitoring system. The book also covers tasks for reporting, scanning numerous hosts, vulnerability detection and exploitation, and its strongest aspect; information gathering.
Kali Linux Network Scanning Cookbook is intended for information security professionals and casual security enthusiasts alike. It will provide the foundational principles for the novice reader but will also introduce scripting techniques and in-depth analysis for the more advanced audience. Whether you are brand new to Kali Linux or a seasoned veteran, this book will aid in both understanding and ultimately mastering many of the most powerful and useful scanning techniques in the industry. It is assumed that the reader has some basic security testing experience.
The definitive guide to hacking the world of the Internet of Things (IoT) -- Internet connected devices such as medical devices, home assistants, smart home appliances and more. Drawing from the real-life exploits of five highly regarded IoT security researchers, Practical IoT Hacking teaches you how to test IoT systems, devices, and protocols to mitigate risk. The book begins by walking you through common threats and a threat modeling framework. You'll develop a security testing methodology, discover the art of passive reconnaissance, and assess security on all layers of an IoT system. Next, you'll perform VLAN hopping, crack MQTT authentication, abuse UPnP, develop an mDNS poisoner, and craft WS-Discovery attacks. You'll tackle both hardware hacking and radio hacking, with in-depth coverage of attacks against embedded IoT devices and RFID systems. You'll also learn how to: • Write a DICOM service scanner as an NSE module • Hack a microcontroller through the UART and SWD interfaces • Reverse engineer firmware and analyze mobile companion apps • Develop an NFC fuzzer using Proxmark3 • Hack a smart home by jamming wireless alarms, playing back IP camera feeds, and controlling a smart treadmill The tools and devices you'll use are affordable and readily available, so you can easily practice what you learn. Whether you're a security researcher, IT team member, or hacking hobbyist, you'll find Practical IoT Hacking indispensable in your efforts to hack all the things REQUIREMENTS: Basic knowledge of Linux command line, TCP/IP, and programming
The Basics of Web Hacking introduces you to a tool-driven process to identify the most widespread vulnerabilities in Web applications. No prior experience is needed. Web apps are a "path of least resistance" that can be exploited to cause the most damage to a system, with the lowest hurdles to overcome. This is a perfect storm for beginning hackers. The process set forth in this book introduces not only the theory and practical information related to these vulnerabilities, but also the detailed configuration and usage of widely available tools necessary to exploit these vulnerabilities. The Basics of Web Hacking provides a simple and clean explanation of how to utilize tools such as Burp Suite, sqlmap, and Zed Attack Proxy (ZAP), as well as basic network scanning tools such as nmap, Nikto, Nessus, Metasploit, John the Ripper, web shells, netcat, and more. Dr. Josh Pauli teaches software security at Dakota State University and has presented on this topic to the U.S. Department of Homeland Security, the NSA, BlackHat Briefings, and Defcon. He will lead you through a focused, three-part approach to Web security, including hacking the server, hacking the Web app, and hacking the Web user. With Dr. Pauli's approach, you will fully understand the what/where/why/how of the most widespread Web vulnerabilities and how easily they can be exploited with the correct tools. You will learn how to set up a safe environment to conduct these attacks, including an attacker Virtual Machine (VM) with all necessary tools and several known-vulnerable Web application VMs that are widely available and maintained for this very purpose. Once you complete the entire process, not only will you be prepared to test for the most damaging Web exploits, you will also be prepared to conduct more advanced Web hacks that mandate a strong base of knowledge. Provides a simple and clean approach to Web hacking, including hands-on examples and exercises that are designed to teach you how to hack the server, hack the Web app, and hack the Web user Covers the most significant new tools such as nmap, Nikto, Nessus, Metasploit, John the Ripper, web shells, netcat, and more! Written by an author who works in the field as a penetration tester and who

teaches Web security classes at Dakota State University

Originally released in 1996, Netcat is a netowrking program designed to read and write data across both Transmission Control Protocol TCP and User Datagram Protocol (UDP) connections using the TCP/Internet Protocol (IP) protocol suite. Netcat is often referred to as a "Swiss Army knife" utility, and for good reason. Just like the multi-function usefullness of the venerable Swiss Army pocket knife, Netcat's functionality is helpful as both a standalone program and a backe-end tool in a wide range of applications. Some of the many uses of Netcat include port scanning, transferring files, grabbing banners, port listening and redirection, and more nefariously, a backdoor. This is the only book dedicated to comprehensive coverage of the tool's many features, and by the end of this book, you'll discover how Netcat can be one of the most valuable tools in your arsenal. * Get Up and Running with Netcat Simple yet powerful...Don't let the trouble-free installation and the easy command line belie the fact that Netcat is indeed a potent and powerful program. * Go PenTesting with Netcat Master Netcat's port scanning and service identification capabilities as well as obtaining Web server application information. Test and verify outbound firewall rules and avoid detection by using antivirus software and the Window Firewall. Also, create a backdoor using Netcat. * Conduct Enumeration and Scanning with Netcat, Nmap, and More! Netcat's not the only game in town...Learn the process of network of enumeration and scanning, and see how Netcat along with other tools such as Nmap and Scanrand can be used to thoroughly identify all of the assets on your network. * Banner Grabbing with Netcat Banner grabbing is a simple yet highly effective method of gathering information about a remote target, and can be performed with relative ease with the Netcat utility. * Explore the Dark Side of Netcat See the various ways Netcat has been used to provide malicious, unauthorized access to their targets. By walking through these methods used to set up backdoor access and circumvent protection mechanisms through the use of Netcat, we can understand how malicious hackers obtain and maintain illegal access. Embrace the dark side of Netcat, so that you may do good deeds later. * Transfer Files Using Netcat The flexability and simple operation allows Netcat to fill a niche when it comes to moving a file or files in a quick and easy fashion. Encryption is provided via several different avenues including integrated support on some of the more modern Netcat variants, tunneling via third-party tools, or operating system integrated IPsec policies. * Troubleshoot Your Network with Netcat Examine remote systems using Netat's scanning ability. Test open ports to see if they really are active and see what protocls are on those ports. Communicate with different applications to determine what problems might exist, and gain insight into how to solve these problems. * Sniff Traffic within a System Use Netcat as a sniffer within a system to collect incoming and outgoing data. Set up Netcat to listen at ports higher than 1023 (the well-known ports), so you can use Netcat even as a normal user. * Comprehensive introduction to the #4 most popular open source security tool available * Tips and tricks on the legitimate uses of Netcat * Detailed information on its nefarious purposes * Demystifies security issues surrounding Netcat * Case studies featuring dozens of ways to use Netcat in daily tasks

Learn how to execute web application penetration testing end-to-end Key Features Build an end-to-end threat model landscape for web application security Learn both web application vulnerabilities and web intrusion testing Associate network vulnerabilities with a web application infrastructure Book Description Companies all over the world want to hire professionals dedicated to application security. Practical Web Penetration Testing focuses on this very trend, teaching you how to conduct application security testing using real-life scenarios. To start with, you’ll set up an environment to perform web application penetration testing. You will then explore different penetration testing concepts such as threat modeling, intrusion test, infrastructure security threat, and more, in combination with advanced concepts such as Python scripting for automation. Once you are done learning the basics, you will discover end-to-end implementation of tools such as Metasploit, Burp Suite, and Kali Linux. Many companies deliver projects into production by using either Agile or Waterfall methodology. This book shows you how to assist any company with their SDLC approach and helps you on your journey to becoming an application security specialist. By the end of this book, you will have hands-on knowledge of using different tools for penetration testing. What you will learn Learn how to use Burp Suite effectively Use Nmap, Metasploit, and more tools for network infrastructure tests Practice using all web application hacking tools for intrusion tests using Kali Linux Learn how to analyze a web application using application threat modeling Know how to conduct web intrusion tests Understand how to execute network infrastructure tests Master automation of penetration testing functions for maximum efficiency using Python Who this book is for Practical Web Penetration Testing is for you if you are a security professional, penetration tester, or stakeholder who wants to execute penetration testing using the latest and most popular tools. Basic knowledge of ethical hacking would be an added advantage.

NOTE: The name of the exam has changed from CSA+ to CySA+. However, the CS0-001 exam objectives are exactly the same. After the book was printed with CSA+ in the title, CompTIA changed the name to CySA+. We have corrected the title to CySA+ in subsequent book printings, but earlier printings that were sold may still show CSA+ in the title. Please rest assured that the book content is 100% the same. Prepare yourself for the newest CompTIA certification The CompTIA Cybersecurity Analyst+ (CySA+) Study Guide provides 100% coverage of all exam objectives for the new CySA+ certification. The CySA+ certification validates a candidate's skills to configure and use threat detection tools, perform data analysis, identify vulnerabilities with a goal of securing and protecting organizations systems. Focus your review for the CySA+ with Sybex and benefit from real-world examples drawn from experts, hands-on labs, insight on how to create your own cybersecurity toolkit, and end-of-chapter review questions help you gauge your understanding each step of the way. You also gain access to the Sybex interactive learning environment that includes electronic flashcards, a searchable glossary, and hundreds of bonus practice questions. This study guide provides the guidance and knowledge you need to demonstrate your skill set in cybersecurity. Key exam topics include: Threat management Vulnerability management Cyber incident response Security architecture and toolsets

Over 100 practical recipes related to network and application security auditing using the powerful Nmap About This Book Learn through practical recipes how to use Nmap for a wide range of tasks for system administrators and penetration testers. Learn the latest and most useful features of Nmap and the Nmap Scripting Engine. Learn to audit the security of networks, web applications, databases, mail servers, Microsoft Windows servers/workstations and even ICS systems. Learn to develop your own modules for the Nmap Scripting Engine. Become familiar with Lua programming. 100% practical tasks, relevant and explained step-by-step with exact commands and optional arguments description Who This Book Is For The book is for anyone who wants to master Nmap and its scripting engine to perform real life security auditing checks for system administrators and penetration testers. This book is also recommended to anyone looking to learn about network security auditing. Finally, novice Nmap users will also learn a lot from this book as it covers several advanced internal aspects of Nmap and related tools. What You Will

Learn Learn about Nmap and related tools, such as Ncat, Ncrack, Ndiff, Zenmap and the Nmap Scripting Engine Master basic and advanced techniques to perform port scanning and host discovery Detect insecure configurations and vulnerabilities in web servers, databases, and mail servers Learn how to detect insecure Microsoft Windows workstations and scan networks using the Active Directory technology Learn how to safely identify and scan critical ICS/SCADA systems Learn how to optimize the performance and behavior of your scans Learn about advanced reporting Learn the fundamentals of Lua programming Become familiar with the development libraries shipped with the NSE Write your own Nmap Scripting Engine scripts In Detail This is the second edition of 'Nmap 6: Network Exploration and Security Auditing Cookbook'. A book aimed for anyone who wants to master Nmap and its scripting engine through practical tasks for system administrators and penetration testers. Besides introducing the most powerful features of Nmap and related tools, common security auditing tasks for local and remote networks, web applications, databases, mail servers, Microsoft Windows machines and even ICS SCADA systems are explained step by step with exact commands and argument explanations. The book starts with the basic usage of Nmap and related tools like Ncat, Ncrack, Ndiff and Zenmap. The Nmap Scripting Engine is thoroughly covered through security checks used commonly in real-life scenarios applied for different types of systems. New chapters for Microsoft Windows and ICS SCADA systems were added and every recipe was revised. This edition reflects the latest updates and hottest additions to the Nmap project to date. The book will also introduce you to Lua programming and NSE script development allowing you to extend further the power of Nmap. Style and approach This book consists of practical recipes on network exploration and security auditing techniques, enabling you to get hands-on experience through real life scenarios.

The current trend of various hacking and security breaches displays how important it has become to pentest your environment, to ensure end point protection. This book will take you through the latest version of Kali Linux to efficiently deal with various crucial security aspects such as confidentiality, integrity, access control and authentication.

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

Full Coverage of All Exam Objectives for the CEH Exams 312-50 and EC0-350 Thoroughly prepare for the challenging CEH Certified Ethical Hackers exam with this comprehensive study guide. The book provides full coverage of exam topics, real-world examples, and includes a CD with chapter review questions, two full-length practice exams, electronic flashcards, a glossary of key terms, and the entire book in a searchable pdf e-book. What's Inside: Covers ethics and legal issues, footprinting, scanning, enumeration, system hacking, trojans and backdoors, sniffers, denial of service, social engineering, session hijacking, hacking Web servers, Web application vulnerabilities, and more Walks you through exam topics and includes plenty of real-world scenarios to help reinforce concepts Includes a CD with an assessment test, review questions, practice exams, electronic flashcards, and the entire book in a searchable pdf

Get started with NMAP, OpenVAS, and Metasploit in this short book and understand how NMAP, OpenVAS, and Metasploit can be integrated with each other for greater flexibility and efficiency. You will begin by working with NMAP and ZENMAP and learning the basic scanning and enumeration process. After getting to know the differences between TCP and UDP scans, you will learn to fine tune your scans and efficiently use NMAP scripts. This will be followed by an introduction to OpenVAS vulnerability management system. You will then learn to configure OpenVAS and scan for and report vulnerabilities. The next chapter takes you on a detailed tour of Metasploit and its basic commands and configuration. You will then invoke NMAP and OpenVAS scans from Metasploit. Lastly, you will take a look at scanning services with Metasploit and get to know more about Meterpreter, an advanced, dynamically extensible payload that is extended over the network at runtime. The final part of the book concludes by pentesting a system in a real-world scenario, where you will apply the skills you have learnt. What You Will Learn Carry out basic scanning with NMAP Invoke NMAP from Python Use vulnerability scanning and reporting with OpenVAS Master common commands in Metasploit Who This Book Is For Readers new to penetration testing who would like to get a quick start on it.

This professional guide and reference examines the challenges of assessing security vulnerabilities in computing infrastructure. Various aspects of vulnerability assessment are covered in detail, including recent advancements in reducing the requirement for expert knowledge through novel applications of artificial intelligence. The work also offers a series of case studies on how to develop and perform vulnerability assessment techniques using start-of-the-art intelligent mechanisms. Topics and features: provides tutorial activities and thought-provoking questions in each chapter, together with numerous case studies; introduces the fundamentals of vulnerability assessment, and reviews the state of the art of research in this area; discusses vulnerability assessment frameworks, including frameworks for industrial control and cloud systems; examines a range of applications that make use of artificial intelligence to enhance the vulnerability assessment processes; presents visualisation techniques that can be used to assist the vulnerability assessment process. In addition to serving the needs of security practitioners and researchers, this accessible volume is also ideal for students and instructors seeking a primer on artificial intelligence for vulnerability assessment, or a supplementary text for courses on computer security, networking, and artificial intelligence.