

Wireshark For Security Professionals Wireshark And The Metasploit Framework

Use Wireshark 2 to overcome real-world network problems Key Features Delve into the core functionalities of the latest version of Wireshark Master network security skills with Wireshark 2 Efficiently find the root cause of network-related issues Book Description Wireshark, a combination of a Linux distro (Kali) and an open source security framework (Metasploit), is a popular and powerful tool. Wireshark is mainly used to analyze the bits and bytes that flow through a network. It efficiently deals with the second to the seventh layer of network protocols, and the analysis made is presented in a form that can be easily read by people. Mastering Wireshark 2 helps you gain expertise in securing your network. We start with installing and setting up Wireshark2.0, and then explore its interface in order to understand all of its functionalities. As you progress through the chapters, you will discover different ways to create, use, capture, and display filters. By halfway through the book, you will have mastered Wireshark features, analyzed different layers of the network protocol, and searched for anomalies. You'll learn about plugins and APIs in depth. Finally, the book focuses on packet analysis for security tasks, command-line utilities, and tools that manage trace files. By the end of the book, you'll have learned how to use Wireshark for network security

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analysis and configured it for troubleshooting purposes. What you will learn Understand what network and protocol analysis is and how it can help you Use Wireshark to capture packets in your network Filter captured traffic to only show what you need Explore useful statistic displays to make it easier to diagnose issues Customize Wireshark to your own specifications Analyze common network and network application protocols Who this book is for If you are a security professional or a network enthusiast and are interested in understanding the internal working of networks, and if you have some prior knowledge of using Wireshark, then this book is for you.

Fully updated Sybex Study Guide for the industry-leading security certification: CISSP Security professionals consider the Certified Information Systems Security Professional (CISSP) to be the most desired certification to achieve. More than 200,000 have taken the exam, and there are more than 70,000 CISSPs worldwide. This highly respected guide is updated to cover changes made to the CISSP Body of Knowledge in 2012. It also provides additional advice on how to pass each section of the exam. With expanded coverage of key areas, it also includes a full-length, 250-question practice exam. Fully updated for the 2012 CISSP Body of Knowledge, the industry-leading standard for IT professionals Thoroughly covers exam topics, including access control, application development security, business continuity and disaster recovery planning, cryptography, operations security, and physical (environmental) security Examines information security governance and risk management, legal regulations, investigations

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and compliance, and telecommunications and network security Features expanded coverage of biometrics, auditing and accountability, software security testing, and many more key topics CISSP: Certified Information Systems Security Professional Study Guide, 6th Edition prepares you with both the knowledge and the confidence to pass the CISSP exam.

Modern communications are now more than ever heavily dependent on mobile networks, creating the potential for higher incidents of sophisticated crimes, terrorism acts, and high impact cyber security breaches. Disrupting these unlawful actions requires a number of digital forensic principles and a comprehensive investigation process. Mobile Network Forensics: Emerging Research and Opportunities is an essential reference source that discusses investigative trends in mobile devices and the internet of things, examining malicious mobile network traffic and traffic irregularities, as well as software-defined mobile network backbones. Featuring research on topics such as lawful interception, system architecture, and networking environments, this book is ideally designed for forensic practitioners, government officials, IT consultants, cybersecurity analysts, researchers, professionals, academicians, and students seeking coverage on the technical and legal aspects of conducting investigations in the mobile networking environment.

The ultimate hands-on guide to IT security and proactive defense The Network Security Test Lab is a hands-on, step-by-step guide to ultimate IT security implementation.

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Covering the full complement of malware, viruses, and other attack technologies, this essential guide walks you through the security assessment and penetration testing process, and provides the set-up guidance you need to build your own security-testing lab. You'll look inside the actual attacks to decode their methods, and learn how to run attacks in an isolated sandbox to better understand how attackers target systems, and how to build the defenses that stop them. You'll be introduced to tools like Wireshark, Networkminer, Nmap, Metasploit, and more as you discover techniques for defending against network attacks, social networking bugs, malware, and the most prevalent malicious traffic. You also get access to open source tools, demo software, and a bootable version of Linux to facilitate hands-on learning and help you implement your new skills. Security technology continues to evolve, and yet not a week goes by without news of a new security breach or a new exploit being released. The Network Security Test Lab is the ultimate guide when you are on the front lines of defense, providing the most up-to-date methods of thwarting would-be attackers. Get acquainted with your hardware, gear, and test platform Learn how attackers penetrate existing security systems Detect malicious activity and build effective defenses Investigate and analyze attacks to inform defense strategy The Network Security Test Lab is your complete, essential guide.

Presents information on how to analyze risks to your networks and the steps needed to select and deploy the appropriate countermeasures to reduce your exposure to

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physical and network threats. Also imparts the skills and knowledge needed to identify and counter some fundamental security risks and requirements, including Internet security threats and measures (audit trails IP sniffing/spoofing etc.) and how to implement security policies and procedures. In addition, this book covers security and network design with respect to particular vulnerabilities and threats. It also covers risk assessment and mitigation and auditing and testing of security systems as well as application standards and technologies required to build secure VPNs, configure client software and server operating systems, IPsec-enabled routers, firewalls and SSL clients. This comprehensive book will provide essential knowledge and skills needed to select, design and deploy a public key infrastructure (PKI) to secure existing and future applications. * Chapters contributed by leaders in the field cover theory and practice of computer security technology, allowing the reader to develop a new level of technical expertise * Comprehensive and up-to-date coverage of security issues facilitates learning and allows the reader to remain current and fully informed from multiple viewpoints * Presents methods of analysis and problem-solving techniques, enhancing the reader's grasp of the material and ability to implement practical solutions This book presents a review of the latest advances in speech and video compression, computer networking protocols, the assessment and monitoring of VoIP quality, and next generation network architectures for multimedia services. The book also concludes with three case studies, each presenting easy-to-follow step-by-step instructions

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together with challenging hands-on exercises. Features: provides illustrative worked examples and end-of-chapter problems; examines speech and video compression techniques, together with speech and video compression standards; describes the media transport protocols RTP and RTCP, as well as the VoIP signalling protocols SIP and SDP; discusses the concepts of VoIP quality of service and quality of experience; reviews next-generation networks based on the IP multimedia subsystem and mobile VoIP; presents case studies on building a VoIP system based on Asterisk, setting up a mobile VoIP system based on Open IMS and Android mobile, and analysing VoIP protocols and quality.

Master Wireshark and discover how to analyze network packets and protocols effectively, along with engaging recipes to troubleshoot network problems

About This Book* Gain valuable insights into the network and application protocols, and the key fields in each protocol* Use Wireshark's powerful statistical tools to analyze your network and leverage its expert system to pinpoint network problems* Master Wireshark and train it as your network sniffer

Who This Book Is For This book is aimed at IT professionals who want to develop or enhance their packet analysis skills. A basic familiarity with common network and application services terms and technologies is assumed.

What You Will Learn* Discover how packet analysts view networks and the role of protocols at the packet level* Capture and isolate all the right packets to perform a thorough analysis using Wireshark's extensive capture and display filtering

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capabilities* Decrypt encrypted wireless traffic* Use Wireshark as a diagnostic tool and also for network security analysis to keep track of malware* Find and resolve problems due to bandwidth, throughput, and packet loss* Identify and locate faults in communication applications including HTTP, FTP, mail, and various other applications - Microsoft OS problems, databases, voice, and video over IP* Identify and locate faults in detecting security failures and security breaches in the network

In Detail This Learning Path starts off installing Wireshark, before gradually taking you through your first packet capture, identifying and filtering out just the packets of interest, and saving them to a new file for later analysis. You will then discover different ways to create and use capture and display filters. By halfway through the book, you'll be mastering Wireshark features, analyzing different layers of the network protocol, and looking for any anomalies. We then start Ethernet and LAN switching, through IP, and then move on to TCP/UDP with a focus on TCP performance problems. It also focuses on WLAN security. Then, we go through application behavior issues including HTTP, mail, DNS, and other common protocols. This book finishes with a look at network forensics and how to locate security problems that might harm the network. This course provides you with highly practical content explaining Metasploit from the following books:

- 1) Wireshark Essentials
- 2) Network Analysis Using Wireshark Cookbook
- 3) Mastering Wireshark

Style and approach This step-by-step guide follows a practical approach, starting from the basic to the advanced aspects. Through a series of real-world

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examples, this learning path will focus on making it easy for you to become an expert at using Wireshark.

This book is aimed at IT professionals who want to develop or enhance their packet analysis skills. Basic familiarity with common network and application services terms and technologies is assumed; however, expertise in advanced networking topics or protocols is not required. Readers in any IT field can develop the analysis skills specifically needed to complement and support their respective areas of responsibility and interest.

The official study guide for the Certified Wireless Analysis Professional certification from CWNP. Four leading wireless experts thoroughly prepare you for the vendor-neutral CWAP exam administered by CWNP, the industry leader for enterprise Wi-Fi training and certification. This official study guide not only covers all exam objectives for the CWAP exam, it also prepares you to administer and troubleshoot complex enterprise WLAN environments. Covers all exam objectives for the Certified Wireless Analysis Professional (CWAP) exam. Covers 802.11 physical (PHY) and 802.11 MAC layer frame formats and technologies. Also covers 802.11 operation and frame exchanges, spectrum analysis and troubleshooting, and protocol analysis and troubleshooting. Includes hands-on exercises using the Wireshark protocol analyzer and Fluke Network's Spectrum

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analyzer software Companion CD includes two practice exams and over 150 electronic flashcards Advancing your skills as a wireless administrator professional? Start by passing the CWAP exam with the complete test prep you'll find in this practical study guide and CD. Note: CD-ROM materials for eBook purchases can be downloaded from <http://booksupport.wiley.com> . Sybex is now the official publisher for Certified Wireless Network Professional, the certifying vendor for the CWSP program. This guide covers all exam objectives, including WLAN discovery techniques, intrusion and attack techniques, 802.11 protocol analysis. Wireless intrusion-prevention systems implementation, layer 2 and 3 VPNs used over 802.11 networks, and managed endpoint security systems. It also covers enterprise/SMB/SOHO/Public-Network Security design models and security solution implementation, building robust security networks, wireless LAN management systems, and much more. Whether you're searching for new or additional opportunities, information security can be vast and overwhelming. In this practical guide, author Christina Morillo introduces technical knowledge from a diverse range of experts in the infosec field. Through 97 concise and useful tips, you'll learn how to expand your skills and solve common issues by working through everyday security problems. You'll also receive valuable guidance from professionals on how to navigate your

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career within this industry. How do you get buy-in from the C-suite for your security program? How do you establish an incident and disaster response plan? This practical book takes you through actionable advice on a wide variety of infosec topics, including thought-provoking questions that drive the direction of the field. Continuously Learn to Protect Tomorrow's Technology--Alyssa Columbus Fight in Cyber Like the Military Fights in the Physical--Andrew Harris Keep People at the Center of Your Work--Camille Stewart Infosec Professionals Need to Know Operational Resilience--Ann Johnson Taking Control of Your Own Journey--Antoine Middleton Security, Privacy, and Messy Data Webs: Taking Back Control in Third-Party Environments--Ben Brook Every Information Security Problem Boils Down to One Thing--Ben Smith Focus on the WHAT and the Why First, Not the Tool--Christina Morillo

Analyze data network like a professional by mastering Wireshark - From 0 to 1337 About This Book Master Wireshark and train it as your network sniffer Impress your peers and get yourself pronounced as a network doctor Understand Wireshark and its numerous features with the aid of this fast-paced book packed with numerous screenshots, and become a pro at resolving network anomalies Who This Book Is For Are you curious to know what's going on in a network? Do you get frustrated when you are unable to detect the cause of problems in your

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networks? This is where the book comes into play. Mastering Wireshark is for developers or network enthusiasts who are interested in understanding the internal workings of networks and have prior knowledge of using Wireshark, but are not aware about all of its functionalities. What You Will Learn Install Wireshark and understand its GUI and all the functionalities of it Create and use different filters Analyze different layers of network protocols and know the amount of packets that flow through the network Decrypt encrypted wireless traffic Use Wireshark as a diagnostic tool and also for network security analysis to keep track of malware Troubleshoot all the network anomalies with help of Wireshark Resolve latencies and bottleneck issues in the network In Detail Wireshark is a popular and powerful tool used to analyze the amount of bits and bytes that are flowing through a network. Wireshark deals with the second to seventh layer of network protocols, and the analysis made is presented in a human readable form. Mastering Wireshark will help you raise your knowledge to an expert level. At the start of the book, you will be taught how to install Wireshark, and will be introduced to its interface so you understand all its functionalities. Moving forward, you will discover different ways to create and use capture and display filters. Halfway through the book, you'll be mastering the features of Wireshark, analyzing different layers of the network protocol, looking for any anomalies. As

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you reach to the end of the book, you will be taught how to use Wireshark for network security analysis and configure it for troubleshooting purposes. Style and approach Every chapter in this book is explained to you in an easy way accompanied by real-life examples and screenshots of the interface, making it easy for you to become an expert at using Wireshark.

Get to grips with the most common as well as complex Linux networking configurations, tools, and services to enhance your professional skills Key Features Learn how to solve critical networking problems using real-world examples Configure common networking services step by step in an enterprise environment Discover how to build infrastructure with an eye toward defense against common attacks Book Description As Linux continues to gain prominence, there has been a rise in network services being deployed on Linux for cost and flexibility reasons. If you are a networking professional or an infrastructure engineer involved with networks, extensive knowledge of Linux networking is a must. This book will guide you in building a strong foundation of Linux networking concepts. The book begins by covering various major distributions, how to pick the right distro, and basic Linux network configurations. You'll then move on to Linux network diagnostics, setting up a Linux firewall, and using Linux as a host for network services. You'll discover a wide range of

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network services, why they're important, and how to configure them in an enterprise environment. Finally, as you work with the example builds in this Linux book, you'll learn to configure various services to defend against common attacks. As you advance to the final chapters, you'll be well on your way towards building the underpinnings for an all-Linux datacenter. By the end of this book, you'll be able to not only configure common Linux network services confidently, but also use tried-and-tested methodologies for future Linux installations. What you will learn

- Use Linux as a troubleshooting and diagnostics platform
- Explore Linux-based network services
- Configure a Linux firewall and set it up for network services
- Deploy and configure Domain Name System (DNS) and Dynamic Host Configuration Protocol (DHCP) services securely
- Configure Linux for load balancing, authentication, and authorization services
- Use Linux as a logging platform for network monitoring
- Deploy and configure Intrusion Prevention Services (IPS)
- Set up Honeypot solutions to detect and foil attacks

Who this book is for This book is for IT and Windows professionals and admins looking for guidance in managing Linux-based networks. Basic knowledge of networking is necessary to get started with this book.

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

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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.

The Wireshark Field Guide provides hackers, pen testers, and network administrators with practical guidance on capturing and interactively browsing computer network traffic. Wireshark is the world's foremost network protocol analyzer, with a rich feature set that includes deep inspection of hundreds of protocols, live capture, offline analysis and many other features. The Wireshark Field Guide covers the installation, configuration and use of this powerful multi-platform tool. The book give readers the hands-on skills to be more productive with Wireshark as they drill down into the information contained in real-time network traffic. Readers will learn the fundamentals of packet capture and inspection, the use of color codes and filters, deep analysis, including probes and taps, and much more. The Wireshark Field Guide is an indispensable companion for network technicians, operators, and engineers. Learn the fundamentals of using Wireshark in a concise field manual Quickly create functional filters that will

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allow you to get to work quickly on solving problems Understand the myriad of options and the deep functionality of Wireshark Solve common network problems Learn some advanced features, methods and helpful ways to work more quickly and efficiently

This updated study guide by two security experts will help you prepare for the CompTIA CySA+ certification exam. Position yourself for success with coverage of crucial security topics! Where can you find 100% coverage of the revised CompTIA Cybersecurity Analyst+ (CySA+) exam objectives? It's all in the CompTIA CySA+ Study Guide Exam CS0-002, Second Edition! This guide provides clear and concise information on crucial security topics. You'll be able to gain insight from practical, real-world examples, plus chapter reviews and exam highlights. Turn to this comprehensive resource to gain authoritative coverage of a range of security subject areas. Review threat and vulnerability management topics Expand your knowledge of software and systems security Gain greater understanding of security operations and monitoring Study incident response information Get guidance on compliance and assessment The CompTIA CySA+ Study Guide, Second Edition connects you to useful study tools that help you prepare for the exam. Gain confidence by using its interactive online test bank with hundreds of bonus practice questions, electronic flashcards,

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and a searchable glossary of key cybersecurity terms. You also get access to hands-on labs and have the opportunity to create a cybersecurity toolkit. Leading security experts, Mike Chapple and David Seidl, wrote this valuable guide to help you prepare to be CompTIA Security+ certified. If you're an IT professional who has earned your CompTIA Security+ certification, success on the CySA+ (Cybersecurity Analyst) exam stands as an impressive addition to your professional credentials. Preparing and taking the CS0-002 exam can also help you plan for advanced certifications, such as the CompTIA Advanced Security Practitioner (CASP+).

There is little doubt that cyber-space has become the battle space for confrontations. However, to conduct cyber operations, a new armory of weapons needs to be employed. No matter how many, or how sophisticated an aggressor's kinetic weapons are, they are useless in cyber-space. This book looks at the milieu of the cyber weapons industry, as well as the belligerents who use cyber weapons. It discusses what distinguishes these hardware devices and software programs from computer science in general. It does this by focusing on specific aspects of the topic—contextual issues of why cyber-space is the new battleground, defensive cyber weapons, offensive cyber weapons, dual-use weapons, and the implications these weapons systems have for practice. Contrary to popular opinion, the use of cyber weapons is not limited to

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nation states; though this is where the bulk of news reporting focuses. The reality is that there isn't a sector of the political-economy that is immune to cyber skirmishes. So, this book looks at cyber weapons not only by national security agencies and the military, but also by law enforcement, and the business sector—the latter includes administrations termed non-government organisations (NGOs). This book offers study material suitable for a wide-ranging audience—students, professionals, researchers, policy officers, and ICT specialists.

If your job is to design or implement IT security solutions or if you're studying for any security certification, this is the how-to guide you've been looking for. Here's how to assess your needs, gather the tools, and create a controlled environment in which you can experiment, test, and develop the solutions that work. With liberal examples from real-world scenarios, it tells you exactly how to implement a strategy to secure your systems now and in the future. Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

Ethereal is the #2 most popular open source security tool used by system administrators and security professionals. This all new book builds on the success of Syngress' best-selling book *Ethereal Packet Sniffing. Wireshark & Ethereal Network Protocol Analyzer Toolkit* provides complete information and step-by-step Instructions for analyzing protocols and network traffic on Windows, Unix or Mac OS X networks. First, readers will learn about the types of sniffers available today and see the benefits

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of using Ethereal. Readers will then learn to install Ethereal in multiple environments including Windows, Unix and Mac OS X as well as building Ethereal from source and will also be guided through Ethereal's graphical user interface. The following sections will teach readers to use command-line options of Ethereal as well as using Tethereal to capture live packets from the wire or to read saved capture files. This section also details how to import and export files between Ethereal and WinDump, Snort, Snoop, Microsoft Network Monitor, and EtherPeek. The book then teaches the reader to master advanced tasks such as creating sub-trees, displaying bitfields in a graphical view, tracking requests and reply packet pairs as well as exclusive coverage of MATE, Ethereal's brand new configurable upper level analysis engine. The final section to the book teaches readers to enable Ethereal to read new Data sources, program their own protocol dissectors, and to create and customize Ethereal reports. Ethereal is the #2 most popular open source security tool, according to a recent study conducted by insecure.org Syngress' first Ethereal book has consistently been one of the best selling security books for the past 2 years

Master Wireshark and discover how to analyze network packets and protocols effectively, along with engaging recipes to troubleshoot network problems About This Book Gain valuable insights into the network and application protocols, and the key fields in each protocol Use Wireshark's powerful statistical tools to analyze your network and leverage its expert system to pinpoint network problems Master Wireshark

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and train it as your network sniffer Who This Book Is For This book is aimed at IT professionals who want to develop or enhance their packet analysis skills. A basic familiarity with common network and application services terms and technologies is assumed. What You Will Learn Discover how packet analysts view networks and the role of protocols at the packet level Capture and isolate all the right packets to perform a thorough analysis using Wireshark's extensive capture and display filtering capabilities Decrypt encrypted wireless traffic Use Wireshark as a diagnostic tool and also for network security analysis to keep track of malware Find and resolve problems due to bandwidth, throughput, and packet loss Identify and locate faults in communication applications including HTTP, FTP, mail, and various other applications – Microsoft OS problems, databases, voice, and video over IP Identify and locate faults in detecting security failures and security breaches in the network In Detail This Learning Path starts off installing Wireshark, before gradually taking you through your first packet capture, identifying and filtering out just the packets of interest, and saving them to a new file for later analysis. You will then discover different ways to create and use capture and display filters. By halfway through the book, you'll be mastering Wireshark features, analyzing different layers of the network protocol, and looking for any anomalies. We then start Ethernet and LAN switching, through IP, and then move on to TCP/UDP with a focus on TCP performance problems. It also focuses on WLAN security. Then, we go through application behavior issues including HTTP, mail, DNS,

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and other common protocols. This book finishes with a look at network forensics and how to locate security problems that might harm the network. This course provides you with highly practical content explaining Metasploit from the following books: Wireshark Essentials Network Analysis Using Wireshark Cookbook Mastering Wireshark Style and approach This step-by-step guide follows a practical approach, starting from the basic to the advanced aspects. Through a series of real-world examples, this learning path will focus on making it easy for you to become an expert at using Wireshark.

"Network analysis is the process of listening to and analyzing network traffic. Network analysis offers an insight into network communications to identify performance problems, locate security breaches, analyze application behavior, and perform capacity planning. Network analysis (aka "protocol analysis") is a process used by IT professionals who are responsible for network performance and security." -- p. 2.

Practice the Computer Security Skills You Need to Succeed! 40+ lab exercises challenge you to solve problems based on realistic case studies Step-by-step scenarios require you to think critically Lab analysis tests measure your understanding of lab results Key term quizzes help build your vocabulary Labs can be performed on a Windows, Linux, or Mac platform with the use of virtual machines In this Lab Manual, you'll practice Configuring workstation network connectivity Analyzing network communication Establishing secure network application communication using TCP/IP protocols Penetration testing with Nmap, metasploit, password cracking, Cobalt Strike,

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and other tools Defending against network application attacks, including SQL injection, web browser exploits, and email attacks Combatting Trojans, man-in-the-middle attacks, and steganography Hardening a host computer, using antivirus applications, and configuring firewalls Securing network communications with encryption, secure shell (SSH), secure copy (SCP), certificates, SSL, and IPsec Preparing for and detecting attacks Backing up and restoring data Handling digital forensics and incident response Instructor resources available: This lab manual supplements the textbook Principles of Computer Security, Fourth Edition, which is available separately Virtual machine files Solutions to the labs are not included in the book and are only available to adopting instructors

Network forensics is an evolution of typical digital forensics, in which evidence is gathered from network traffic in near real time. This book will help security and forensics professionals as well as network administrators build a solid foundation of processes and controls to identify incidents and gather evidence from the network. Forensic scientists and investigators are some of the fastest growing jobs in the United States with over 70,000 individuals employed in 2008. Specifically in the area of cybercrime and digital forensics, the federal government is conducting a talent search for 10,000 qualified specialists. Almost every technology company has developed or is developing a cloud computing strategy. To cut costs, many companies are moving toward network-based applications like Salesforce.com, PeopleSoft, and HR Direct.

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Every day, we are moving companies' proprietary data into a cloud, which can be hosted anywhere in the world. These companies need to understand how to identify where their data is going and what they are sending. Key network forensics skills and tools are discussed-for example, capturing network traffic, using Snort for network-based forensics, using NetWitness Investigator for network traffic analysis, and deciphering TCP/IP. The current and future states of network forensics analysis tools are addressed. The admissibility of network-based traffic is covered as well as the typical life cycle of a network forensics investigation.

Learn Wireshark provides a solid overview of basic protocol analysis. The book shows you how to navigate the Wireshark interface, so you can confidently examine common protocols such as TCP, IP and ICMP. You'll learn tips on how to use display and capture filters, save, export, and share captures, and tips on how to troubleshoot latency issues

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.

This all new book covering the brand new Snort version 2.6 from members of the

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Snort developers team. This fully integrated book and Web toolkit covers everything from packet inspection to optimizing Snort for speed to using the most advanced features of Snort to defend even the largest and most congested enterprise networks. Leading Snort experts Brian Caswell, Andrew Baker, and Jay Beale analyze traffic from real attacks to demonstrate the best practices for implementing the most powerful Snort features. The book will begin with a discussion of packet inspection and the progression from intrusion detection to intrusion prevention. The authors provide examples of packet inspection methods including: protocol standards compliance, protocol anomaly detection, application control, and signature matching. In addition, application-level vulnerabilities including Binary Code in HTTP headers, HTTP/HTTPS Tunneling, URL Directory Traversal, Cross-Site Scripting, and SQL Injection will also be analyzed. Next, a brief chapter on installing and configuring Snort will highlight various methods for fine tuning your installation to optimize Snort performance including hardware/OS selection, finding and eliminating bottlenecks, and benchmarking and testing your deployment. A special chapter also details how to use Barnyard to improve the overall performance of Snort. Next, best practices will be presented allowing readers to enhance the performance of Snort for even the largest and most complex networks. The next chapter reveals the inner workings of Snort by

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analyzing the source code. The next several chapters will detail how to write, modify, and fine-tune basic to advanced rules and pre-processors. Detailed analysis of real packet captures will be provided both in the book and the companion material. Several examples for optimizing output plugins will then be discussed including a comparison of MySQL and PostgreSQL. Best practices for monitoring Snort sensors and analyzing intrusion data follow with examples of real world attacks using: ACID, BASE, SGUIL, SnortSnarf, Snort_stat.pl, Swatch, and more. The last part of the book contains several chapters on active response, intrusion prevention, and using Snort's most advanced capabilities for everything from forensics and incident handling to building and analyzing honey pots. This fully integrated book and Web toolkit covers everything all in one convenient package It is authored by members of the Snort team and it is packed full of their experience and expertise Includes full coverage of the brand new Snort version 2.6, packed full of all the latest information

Leverage Wireshark, Lua and Metasploit to solve any security challenge Wireshark is arguably one of the most versatile networking tools available, allowing microscopic examination of almost any kind of network activity. This book is designed to help you quickly navigate and leverage Wireshark effectively, with a primer for exploring the Wireshark Lua API as well as an introduction to

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theMetasploit Framework. Wireshark for Security Professionals covers bothoffensive and defensive concepts that can be applied to any Infosecposition, providing detailed, advanced content demonstrating thefull potential of the Wireshark tool. Coverage includes theWireshark Lua API, Networking and Metasploit fundamentals, plusimportant foundational security concepts explained in a practicalmanner. You are guided through full usage of Wireshark, frominstallation to everyday use, including how to surreptitiouslycapture packets using advanced MiTM techniques. Practicaldemonstrations integrate Metasploit and Wireshark demonstrating howthese tools can be used together, with detailed explanations andcases that illustrate the concepts at work. These concepts can beequally useful if you are performing offensive reverse engineeringor performing incident response and network forensics. Lua sourcecode is provided, and you can download virtual lab environments aswell as PCAPs allowing them to follow along and gain hands onexperience. The final chapter includes a practical case study thatexpands upon the topics presented to provide a cohesive example ofhow to leverage Wireshark in a real world scenario. Understand the basics of Wireshark and Metasploit within thesecurity space Integrate Lua scripting to extend Wireshark and perform packetanalysis Learn the technical details behind common networkexploitation Packet analysis in the context of both offensive and

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defensivesecurity research Wireshark is the standard network analysis tool used across many industries due to its powerful feature set and support for numerous protocols. When used effectively, it becomes an invaluable tool for any security professional, however the learning curve can be steep. Climb the curve more quickly with the expert insight and comprehensive coverage in Wireshark for Security Professionals.

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.

Wireshark for Security Professionals Using Wireshark and the Metasploit Framework John Wiley & Sons

Discover modern tactics, techniques, and procedures for pentesting industrial control systems Key Features Become well-versed with offensive ways of defending your industrial control systems Learn about industrial network protocols, threat hunting, Active Directory compromises, SQL injection, and much more Build offensive and defensive skills to combat industrial cyber threats Book

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Description The industrial cybersecurity domain has grown significantly in recent years. To completely secure critical infrastructure, red teams must be employed to continuously test and exploit the security integrity of a company's people, processes, and products. This pentesting book takes a slightly different approach than most by helping you to gain hands-on experience with equipment that you'll come across in the field. This will enable you to understand how industrial equipment interacts and operates within an operational environment. You'll start by getting to grips with the basics of industrial processes, and then see how to create and break the process, along with gathering open source intel to create a threat landscape for your potential customer. As you advance, you'll find out how to install and utilize offensive techniques used by professional hackers.

Throughout the book, you'll explore industrial equipment, port and service discovery, pivoting, and much more, before finally launching attacks against systems in an industrial network. By the end of this penetration testing book, you'll not only understand how to analyze and navigate the intricacies of an industrial control system (ICS), but you'll also have developed essential offensive and defensive skills to proactively protect industrial networks from modern cyberattacks. What you will learn Set up a starter-kit ICS lab with both physical and virtual equipment Perform open source intel-gathering pre-engagement to

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help map your attack landscape Get to grips with the Standard Operating Procedures (SOPs) for penetration testing on industrial equipment Understand the principles of traffic spanning and the importance of listening to customer networks Gain fundamental knowledge of ICS communication Connect physical operational technology to engineering workstations and supervisory control and data acquisition (SCADA) software Get hands-on with directory scanning tools to map web-based SCADA solutions Who this book is for If you are an ethical hacker, penetration tester, automation engineer, or IT security professional looking to maintain and secure industrial networks from adversaries, this book is for you. A basic understanding of cybersecurity and recent cyber events will help you get the most out of this book.

Virtual, hands-on learning labs allow you to apply your technical skills using live hardware and software hosted in the cloud. So Sybex has bundled CompTIA CySA+ labs from Practice Labs, the IT Competency Hub, with our popular CompTIA CySA+ Study Guide, Second Edition. Working in these labs gives you the same experience you need to prepare for the CompTIA CySA+ Exam CS0-002 that you would face in a real-life setting. Used in addition to the book, the labs are a proven way to prepare for the certification and for work in the cybersecurity field. The CompTIA CySA+ Study Guide Exam CS0-002, Second

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Edition provides clear and concise information on crucial security topics and verified 100% coverage of the revised CompTIA Cybersecurity Analyst+ (CySA+) exam objectives. You'll be able to gain insight from practical, real-world examples, plus chapter reviews and exam highlights. Turn to this comprehensive resource to gain authoritative coverage of a range of security subject areas. Review threat and vulnerability management topics Expand your knowledge of software and systems security Gain greater understanding of security operations and monitoring Study incident response information Get guidance on compliance and assessment The CompTIA CySA+ Study Guide, Second Edition connects you to useful study tools that help you prepare for the exam. Gain confidence by using its interactive online test bank with hundreds of bonus practice questions, electronic flashcards, and a searchable glossary of key cybersecurity terms. You also get access to hands-on labs and have the opportunity to create a cybersecurity toolkit. Leading security experts, Mike Chapple and David Seidl, wrote this valuable guide to help you prepare to be CompTIA Security+ certified. If you're an IT professional who has earned your CompTIA Security+ certification, success on the CySA+ (Cybersecurity Analyst) exam stands as an impressive addition to your professional credentials. Preparing and taking the CS0-002 exam can also help you plan for advanced certifications, such as the

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CompTIA Advanced Security Practitioner (CASP+). And with this edition you also get Practice Labs virtual labs that run from your browser. The registration code is included with the book and gives you 6 months unlimited access to Practice Labs CompTIA CySA+ Exam CS0-002 Labs with 30 unique lab modules to practice your skills.

Protect your network as you move from the basics of the Wireshark scenarios to detecting and resolving network anomalies. Key Features Learn protocol analysis, optimization and troubleshooting using Wireshark, an open source tool Learn the usage of filtering and statistical tools to ease your troubleshooting job Quickly perform root-cause analysis over your network in an event of network failure or a security breach Book Description Wireshark is an open source protocol analyser, commonly used among the network and security professionals. Currently being developed and maintained by volunteer contributions of networking experts from all over the globe. Wireshark is mainly used to analyze network traffic, analyse network issues, analyse protocol behaviour, etc. - it lets you see what's going on in your network at a granular level. This book takes you from the basics of the Wireshark environment to detecting and resolving network anomalies. This book will start from the basics of setting up your Wireshark environment and will walk you through the

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fundamentals of networking and packet analysis. As you make your way through the chapters, you will discover different ways to analyse network traffic through creation and usage of filters and statistical features. You will look at network security packet analysis, command-line utilities, and other advanced tools that will come in handy when working with day-to-day network operations. By the end of this book, you have enough skill with Wireshark 2 to overcome real-world network challenges. What you will learn Learn how TCP/IP works Install Wireshark and understand its GUI Creation and Usage of Filters to ease analysis process Understand the usual and unusual behaviour of Protocols Troubleshoot network anomalies quickly with help of Wireshark Use Wireshark as a diagnostic tool for network security analysis to identify source of malware Decrypting wireless traffic Resolve latencies and bottleneck issues in the network Who this book is for If you are a security professional or a network enthusiast who is interested in understanding the internal working of networks and packets, then this book is for you. No prior knowledge of Wireshark is needed.

The most detailed, comprehensive coverage of CWSP-205 exam objectives CWSP: Certified Wireless Security Professional Study Guide offers comprehensive preparation for the CWSP-205 exam. Fully updated to align with the new 2015 exam, this guide covers all exam objectives and gives you access

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to the Sybex interactive online learning system so you can go into the test fully confident in your skills. Coverage includes WLAN discovery, intrusion and attack, 802.11 protocol analysis, wireless intrusion prevention system implementation, Layer 2 and 3 VPN over 802.11 networks, managed endpoint security systems, and more. Content new to this edition features discussions about BYOD and guest access, as well as detailed and insightful guidance on troubleshooting. With more than double the coverage of the “official” exam guide, plus access to interactive learning tools, this book is your ultimate solution for CWSP-205 exam prep. The CWSP is the leading vendor-neutral security certification administered for IT professionals, developed for those working with and securing wireless networks. As an advanced certification, the CWSP requires rigorous preparation — and this book provides more coverage and expert insight than any other source. Learn the ins and outs of advanced network security Study 100 percent of CWSP-205 objectives Test your understanding with two complete practice exams Gauge your level of preparedness with a pre-test assessment The CWSP is a springboard for more advanced certifications, and the premier qualification employers look for in the field. If you’ve already earned the CWTS and the CWNA, it’s time to take your career to the next level. CWSP: Certified Wireless Security Professional Study Guide is your ideal companion for effective, efficient

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CWSP-205 preparation.

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.

Technology professionals seeking higher-paying security jobs need to know security fundamentals to land the job-and this book will help Divided into two parts: how to get the job and a security crash course to prepare for the job interview Security is one of today's fastest growing IT specialties, and this book will appeal to technology professionals looking to segue to a security-focused position Discusses creating a resume, dealing with headhunters, interviewing, making a data stream flow, classifying security threats, building a lab, building a hacker's toolkit, and documenting work The number of information security jobs is

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growing at an estimated rate of 14 percent a year, and is expected to reach 2.1 million jobs by 2008

If you are network administrator or a security analyst with an interest in using Wireshark for security analysis, then this is the book for you. Basic familiarity with common network and application services terms and technologies is assumed.

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