

Computer Forensics Investigating Wireless Networks And Devices C Computer Hfi Hacking Forensic I

The open source nature of the platform has not only established a new direction for the industry, but enables a developer or forensic analyst to understand the device at the most fundamental level. Android Forensics covers an open source mobile device platform based on the Linux 2.6 kernel and managed by the Open Handset Alliance. The Android platform is a major source of digital forensic investigation and analysis. This book provides a thorough review of the Android platform including supported hardware devices, the structure of the Android development project and implementation of core services (wireless communication, data storage and other low-level functions). Finally, it will focus on teaching readers how to apply actual forensic techniques to recover data. Ability to forensically acquire Android devices using the techniques outlined in the book Detailed information about Android applications needed for forensics investigations Important information about SQLite, a file based structured data storage relevant for both Android and many other platforms.

Learn to pull “digital fingerprints from alternate data storage (ADS) devices including: iPod, Xbox, digital cameras and more from the cyber sleuths who train the Secret Service, FBI, and Department of Defense in bleeding edge digital forensics techniques. This book sets a new forensic methodology standard for investigators to use. This book begins by describing how alternate data storage devices are used to both move and hide data. From here a series of case studies using bleeding edge forensic analysis tools demonstrate to readers how to perform forensic investigations on a variety of ADS devices including: Apple iPods, Digital Video Recorders, Cameras, Gaming Consoles (Xbox, PS2, and PSP), Bluetooth devices, and more using state of the art tools. Finally, the book takes a look into the future at “not yet every day devices which will soon be common repositories for hiding and moving data for both legitimate and illegitimate purposes. Authors are undisputed leaders who train the Secret Service, FBI, and Department of Defense Book presents “one of a kind” bleeding edge information that absolutely can not be found anywhere else Today the industry has exploded and cyber investigators can be found in almost every field Mobile forensics has grown from a relatively obscure tradecraft to a crucial part of many criminal investigations, and is now used daily by examiners and analysts within local, state, and federal law enforcement as well as within the military, US government organizations, and the private “e-Discovery” industry. Developments in forensic research, tools, and processes over the past decade have been very successful and continue to change at a rapid pace. Forensic Investigations and Risk Management in Mobile and Wireless Communications is a collection of innovative research on the methods and applications of analyzing mobile devices and data for collection of information pertaining to the legal evidence related to various security breaches and intrusion detection. While highlighting topics including cybercrime, neural networks, and smartphone security, this book is ideally designed for security analysts, IT professionals, researchers, practitioners, academicians, and students currently investigating the up-and-coming aspects surrounding network security, computer science, and security engineering.

"Digital Evidence and Computer Crime" provides the knowledge necessary to uncover and use digital evidence effectively in any kind of investigation. This completely updated edition provides the introductory materials that new students require, and also expands on the material presented in previous editions to help students develop these skills.

Handbook of Computer Crime Investigation

Advances in Digital Forensics VI

Investigation Procedures and Response - Chfi

Computer Forensics: Investigating Network Intrusions and Cyber Crime

Digital Forensics, Investigation, and Response

Electronic discovery refers to a process in which electronic data is sought, located, secured, and searched with the intent of using it as evidence in a legal case. Computer forensics is the application of computer investigation and analysis techniques to perform an investigation to find out exactly what happened on a computer and who was responsible. IDC estimates that the U.S. market for computer forensics will be grow from \$252 million in 2004 to \$630 million by 2009. Business is strong outside the United States, as well. By 2011, the estimated international market will be \$1.8 billion dollars. The Techno Forensics Conference has increased in size by almost 50% in its second year; another example of the rapid growth in the market. This book is the first to combine cybercrime and digital forensic topics to provides law enforcement and IT security professionals with the information needed to manage a digital investigation. Everything needed for analyzing forensic data and recovering digital evidence can be found in one place, including instructions for building a digital forensics lab. * Digital investigation and forensics is a growing industry * Corporate I.T. departments investigating corporate espionage and criminal activities are learning as they go and need a comprehensive guide to e-discovery * Appeals to law enforcement agencies with limited budgets

Computer Forensics: Investigating Wireless Networks and DevicesCengage Learning

Every computer crime leaves tracks—you just have to know where to find them. This book shows you how to collect and analyze the digital evidence left behind in a digital crime scene. Computers have always been susceptible to unwanted intrusions, but as the sophistication of computer technology increases so does the need to anticipate, and safeguard against, a corresponding rise in computer-related criminal activity. Computer forensics, the newest branch of computer security, focuses on the aftermath of a computer security incident. The goal of computer forensics is to conduct a structured investigation to determine exactly what happened, who was responsible, and to perform the investigation in such a way that the results are useful in a criminal proceeding. Written by two experts in digital investigation, Computer Forensics provides extensive information on how to handle the computer as evidence. Kruse and Heiser walk the reader through the complete forensics process—from the initial collection of evidence through the final report. Topics include an overview of the forensic relevance of encryption, the examination of digital evidence for clues, and the most effective way to present your evidence and conclusions in court. Unique forensic issues associated with both the Unix and the Windows NT/2000 operating systems are thoroughly covered. This book provides a detailed methodology for collecting, preserving, and effectively using evidence by addressing the three A's of computer forensics: Acquire the evidence without altering or damaging the original data. Authenticate that your recorded evidence is the same as the original seized data. Analyze the data without modifying the recovered data.

Computer Forensics is written for everyone who is responsible for investigating digital criminal incidents or who may be interested in the techniques that such investigators use. It is equally helpful to those investigating hacked web servers, and those who are investigating the source of illegal pornography.

Cisco IOS (the software that runs the vast majority of Cisco routers and all Cisco network switches) is the dominant routing platform on the Internet and corporate networks. This widespread distribution, as well as its architectural deficiencies, makes it a valuable target for hackers looking to attack a corporate or private network infrastructure. Compromised devices can disrupt stability, introduce malicious modification, and endanger all communication on the network. For security of the network and investigation of attacks, in-depth analysis and diagnostics are critical, but no book currently covers forensic analysis of Cisco network devices in any detail. Cisco Router and Switch Forensics is the first book devoted to criminal attacks, incident response, data collection, and legal testimony on the market leader in network devices, including routers, switches, and wireless access points. Why is this focus on network devices necessary? Because criminals are targeting networks, and network devices require a fundamentally different approach than the process taken with traditional forensics. By hacking a router, an attacker can bypass a network's firewalls, issue a denial of service (DoS) attack to disable the network, monitor and record all outgoing and incoming traffic, or redirect that communication anywhere they like. But capturing this criminal activity cannot be accomplished with the tools and techniques of traditional forensics. While forensic analysis of computers or other traditional media typically involves immediate shut-down of the target machine, creation of a duplicate, and analysis of static data, this process rarely recovers live system data. So, when an investigation focuses on live network activity, this traditional approach obviously fails. Investigators must recover data as it is transferred via the router or switch, because it is destroyed when the network device is powered down. In this case, following the traditional approach outlined in books on general computer forensics techniques is not only insufficient, but also essentially harmful to an investigation. Jargon buster: A network switch is a small hardware device that joins multiple computers together within one local area network (LAN). A router is a more sophisticated network device that joins multiple wired or wireless networks together. The only book devoted to forensic analysis of routers and switches, focusing on the operating system that runs the vast majority of network devices in the enterprise and on the Internet Outlines the fundamental differences between router forensics and traditional forensics, a critical distinction for responders in an investigation targeting network activity Details where network forensics fits within the entire process of an investigation, end to end, from incident response and data collection to preparing a report and legal testimony

Scene of the Cybercrime

A Law Enforcement Practitioner's Perspective

Concepts, Methodologies, Tools, and Applications

Cyber and Digital Forensic Investigations

Investigating File and Operating Systems, Wireless Networks, and Storage Chfi

Cybercrime and Information Technology

Security is always a concern with any new technology. When we think security we typically think of stopping an attacker from breaking in or gaining access. However, based on the broad reach of wireless, stopping someone from passively listening is just as critical. Intrusion detection systems, firewalls, and forensics are just a few of the key areas that must be understood and applied to proactively solve the wireless problem. From short text messaging to war driving, Wireless Crime and Forensic Investigation explores all aspects of wireless technology, how it is used in daily life, and how it will be used in the future. The book provides a one-stop resource on the types of wireless crimes that are being committed and forensic investigation techniques for wireless devices and wireless networks. The author's straightforward and easy to read style seamlessly integrates the topics of wireless security and computer forensics. He provides a solid understanding of modern wireless technologies, wireless security techniques and wireless crime techniques, as well as conducting forensic analysis on wireless devices and networks. Each chapter, while part of a greater whole, can stand on its own, making researching wireless technologies, security, crime, or forensics easy. With a problem space as big and complex as wireless, proactive measures must be put in place, and put in place immediately. To protect your organization, you need to be well versed in the new technology sooner rather than later. You can pay now or you can pay later. Later always costs more. This book not only has all the information required to become proficient in wireless technology, but also provides the information required for conducting a forensic analysis in a wireless environment.

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 Computer Forensic Series by EC-Council provides the knowledge and skills to identify, track, and prosecute the cyber-criminal. The series is comprised of five books covering a broad base of topics in Computer Hacking Forensic Investigation, designed to expose the reader to the process of detecting attacks and collecting evidence in a forensically sound manner with the intent to report crime and prevent future attacks. Learners are introduced to advanced techniques in computer investigation and analysis with interest in generating potential legal evidence. In full, this and the other four books provide preparation to identify evidence in computer related crime and abuse cases as well as track the intrusive hacker's path through a client system. The series and accompanying labs help prepare the security student or professional to profile an intruder's footprint and gather all necessary information and evidence to support prosecution in a court of law. Network Intrusions and Cybercrime includes a discussion of tools used in investigations as well as information on investigating network traffic, web attacks, DOS attacks, Corporate Espionage and much more! Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Security is always a concern with any new technology. When we think security we typically think of stopping an attacker from breaking in or gaining access. From short text messaging to investigating war, this book explores all aspects of wireless technology, including how it is used in daily life and how it might be used in the future. It provides a one-stop resource on the types of wireless crimes that are being committed and the forensic investigation techniques that are used for wireless devices and wireless networks. The author provides a solid understanding of modern wireless technologies, wireless security techniques, and wireless crime techniques, and shows how to conduct forensic analysis on wireless devices and networks. Each chapter, while part of a greater whole, is self-contained for quick comprehension.

Computer Forensics: Investigating Wireless Networks and Devices

The Computer Network Infrastructure and Computer Security, Cybersecurity Laws, Internet of Things (IoT), and Mobile Devices

Forensic Tools and Technology

Introductory Computer Forensics

Android Forensics

Guide to Computer Forensics and Investigations

The Computer Forensic Series by EC-Council provides the knowledge and skills to identify, track, and prosecute the cyber-criminal. The series is comprised of four books covering a broad base of topics in Computer Hacking Forensic Investigation, designed to expose the reader to the process of detecting attacks and collecting evidence in a forensically sound manner with the intent to report crime and prevent future attacks. Learners are introduced to advanced techniques in computer investigation and analysis with interest in generating potential legal evidence. In full, this and the other three books provide preparation to identify evidence in computer related crime and abuse cases as well as track the intrusive hacker's path through a client system. The series and accompanying labs help prepare the security student or professional to profile an intruder's footprint and gather all necessary information and evidence to support prosecution in a court of law. File and Operating Systems, Wireless Networks, and Storage provides a basic understanding of file systems, storage and digital media devices. Boot processes, Windows and Linux Forensics and application of password crackers are all discussed. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

When it comes to computer crimes, the criminals got a big head start. But the law enforcement and IT security communities are now working diligently to develop the knowledge, skills, and tools to successfully investigate and prosecute Cybercrime cases. When the first edition of "Scene of the Cybercrime" published in 2002, it was one of the first books that educated IT security professionals and law enforcement how to fight Cybercrime. Over the past 5 years a great deal has changed in how computer crimes are perpetrated and subsequently investigated. Also, the IT security and law enforcement communities have dramatically improved their ability to deal with Cybercrime, largely as a result of increased spending and training. According to the 2006 Computer Security Institute's and FBI's joint Cybercrime report: 52% of companies reported unauthorized use of computer systems in the prior 12 months. Each of these incidents is a Cybecrime requiring a certain level of investigation and remediation. And in many cases, an investigation is mandates by federal compliance regulations such as Sarbanes-Oxley, HIPAA, or the Payment Card Industry (PCI) Data Security Standard. Scene of the Cybercrime, Second Edition is a completely revised and updated book which covers all of the technological, legal, and regulatory changes, which have occurred since the first edition. The book is written for dual audience: IT security professionals and members of law enforcement. It gives the technical experts a little peek into the law enforcement world, a highly structured environment where the "letter of the law" is paramount and procedures must be followed closely lest an investigation be contaminated and all the evidence collected rendered useless. It also provides law enforcement officers with an idea of some of the technical aspects of how cyber crimes are committed, and how technology can be used to track down and build a case against the criminals who commit them. Scene of the Cybercrime, Second Editions provides a roadmap that those on both sides of the table can use to navigate the legal and technical landscape to understand, prevent, detect, and successfully prosecute the criminal behavior that is as much a threat to the online community as "traditional" crime is to the neighborhoods in which we live. Also included is an all new chapter on Worldwide Forensics Acts and Laws. * Companion Web site provides custom tools and scripts, which readers can download for conducting digital, forensic investigations. * Special chapters outline how Cybercrime investigations must be reported and investigated by corporate IT staff to meet federal mandates from Sarbanes Oxley, and the Payment Card Industry (PCI) Data Security Standard * Details forensic investigative techniques for the most common operating systems (Windows, Linux and UNIX) as well as cutting edge devices including iPods, Blackberries, and cell phones.

Provides an overview and case studies of computer crimes and discusses topics including data recovery, evidence collection, preservation of digital evidence, information warfare, and the cyber underground.

Advances in Digital Forensics VI describes original research results and innovative applications in the discipline of digital forensics. In addition, it highlights some of the major technical and legal issues related to digital evidence and electronic crime investigations. The areas of coverage include: Themes and Issues, Forensic Techniques, Internet Crime Investigations, Live Forensics, Advanced Forensic Techniques, and Forensic Tools. This book is the sixth volume in the annual series produced by the International Federation for Information Processing (IFIP) Working Group 11.9 on Digital Forensics, an international community of scientists, engineers and practitioners dedicated to advancing the state of the art of research and practice in digital forensics. The book contains a selection of twenty-one edited papers from the Sixth Annual IFIP WG 11.9 International Conference on Digital Forensics, held at the University of Hong Kong, Hong Kong, China, in January 2010.

Investigation, Analysis, and Mobile Security for Google Android

Forensic Science, Computers and the Internet

Ethical Hacking and Countermeasures: Attack Phases

Handbook of Digital Forensics and Investigation

Cisco Router and Switch Forensics

Computer Forensics + Computer Forensics - Investigating File and Operating Systems, Wireless Networks, and Storage - CHFI, 2nd Ed. + MindTap Information Security, 1 Term 6 Months Printed Access Card

We live in a wireless society, one where convenience and accessibility determine the efficacy of the latest electronic gadgets and mobile devices. Making the most of these technologies—and ensuring their security against potential attackers—requires increased diligence in mobile technology research and development. Mobile Computing and Wireless Networks: Concepts, Methodologies, Tools, and Applications brings together a comprehensive range of voices and research in the area of mobile and wireless technologies, exploring the successes and failures, advantages and drawbacks, and benefits and limitations of the technology. With applications in a plethora of different research and topic areas, this multi-volume reference work benefits researchers, service providers, end-users, and information technology professionals. This four-volume reference work includes a diverse array of chapters and authors covering topics such as m-commerce, network ethics, mobile agent systems, mobile learning, communications infrastructure, and applications in fields such as business, healthcare, government, tourism, and more.

A Practical Guide to Computer Forensics Investigations introduces the newest technologies along with detailed information on how the evidence contained on these devices should be analyzed. Packed with practical, hands-on activities, students will learn unique subjects from chapters including Mac Forensics, Mobile Forensics, Cyberbullying, and Child Endangerment. This well-developed book will prepare students for the rapidly-growing field of computer forensics for a career with law enforcement, accounting firms, banks and credit card companies, private investigation companies, or government agencies.

*Handbook of Digital Forensics and Investigation builds on the success of the Handbook of Computer Crime Investigation, bringing together renowned experts in all areas of digital forensics and investigation to provide the consummate resource for practitioners in the field. It is also designed as an accompanying text to Digital Evidence and Computer Crime. This unique collection details how to conduct digital investigations in both criminal and civil contexts, and how to locate and utilize digital evidence on computers, networks, and embedded systems. Specifically, the Investigative Methodology section of the Handbook provides expert guidance in the three main areas of practice: Forensic Analysis, Electronic Discovery, and Intrusion Investigation. The Technology section is extended and updated to reflect the state of the art in each area of specialization. The main areas of focus in the Technology section are forensic analysis of Windows, Unix, Macintosh, and embedded systems (including cellular telephones and other mobile devices), and investigations involving networks (including enterprise environments and mobile telecommunications technology). This handbook is an essential technical reference and on-the-job guide that IT professionals, forensic practitioners, law enforcement, and attorneys will rely on when confronted with computer related crime and digital evidence of any kind. *Provides methodologies proven in practice for conducting digital investigations of all kinds *Demonstrates how to locate and interpret a wide variety of digital evidence, and how it can be useful in investigations *Presents tools in the context of the investigative process, including EnCase, FTK, ProDiscover, foremost, XACT, Network Miner, Splunk, flow-tools, and many other specialized utilities and analysis platforms *Case examples in every chapter give readers a practical understanding of the technical, logistical, and legal challenges that arise in real investigations*

The EC-Council | Press Ethical Hacking and Countermeasures Series is comprised of five books covering a broad base of topics in offensive network security, ethical hacking, and network defense and countermeasures. The content of this series is designed to immerse the reader into an interactive environment where they will be shown how to scan, test, hack and secure information systems. With the full series of books, the reader will gain in-depth knowledge and practical experience with essential security systems, and become prepared to succeed on the Certified Ethical Hacker, or C/EH, certification from EC-Council. This certification covers a plethora of offensive security topics ranging from how perimeter defenses work, to scanning and attacking simulated networks. A wide variety of tools, viruses, and malware is presented in this and the other four books, providing a complete understanding of the tactics and tools used by hackers. By gaining a thorough understanding of how hackers operate, an Ethical Hacker will be able to set up strong countermeasures and defensive systems to protect an organization's critical infrastructure and information. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Computer Forensics: Investigating File and Operating Systems, Wireless Networks, and Storage (CHFI)

Ethical Hacking and Countermeasures: Linux, Macintosh and Mobile Systems

Computer Forensics + Computer Forensics: Investigating File and Operating Systems, Wireless Networks, and Storage Chfi, 2nd Ed. + Computer Forensics: Investigating Network Intrusions and Cybercrime

Alternate Data Storage Forensics

Wireless Crime and Forensic Investigation

Digital Evidence and Computer Crime

Identify and safeguard your network against both internal and external threats, hackers, and malware attacks About This Book Lay your hands on physical and virtual evidence to understand the sort of crime committed by capturing and analyzing network traffic Connect the dots by understanding web proxies, firewalls, and routers to close in on your suspect A hands-on guide to help you solve your case with malware forensic methods and network behaviors Who This Book Is For If you are a network administrator, system administrator, information security, or forensics professional and wish to learn network forensic to track the intrusions through network-based evidence, then this book is for you. Basic knowledge of Linux and networking concepts is expected. What You Will Learn Understand Internetworking, sources of network-based evidence and other basic technical fundamentals, including the tools that will be used throughout the book Acquire evidence using traffic acquisition software and know how to manage and handle the evidence Perform packet analysis by capturing and collecting data, along with content analysis Locate wireless devices, as well as capturing and analyzing wireless traffic data packets Implement protocol analysis and content matching; acquire evidence from NIDS/NIPS Act upon the data and evidence gathered by being able to connect the dots and draw links between various events Apply logging and interfaces, along with analyzing web proxies and understanding encrypted web traffic Use IOCs (Indicators of Compromise) and build real-world forensic solutions, dealing with malware In Detail We live in a highly networked world. Every digital device—phone, tablet, or computer is connected to each other, in one way or another. In this new age of connected networks, there is network crime. Network forensics is the brave new frontier of digital investigation and information security professionals to extend their abilities to catch miscreants on the network. The book starts with an introduction to the world of network forensics and investigations. You will begin by getting an understanding of how to gather both physical and virtual evidence, intercepting and analyzing network data, wireless data packets, investigating intrusions, and so on. You will further explore the technology, tools, and investigating methods using malware forensics, network tunneling, and behaviors. By the end of the book, you will gain a complete understanding of how to successfully close a case. Style and approach An easy-to-follow book filled with real-world case studies and applications. Each topic is explained along with all the practical tools and software needed, allowing the reader to use a completely hands-on approach.

Following on the success of his introductory text, Digital Evidence and Computer Crime, Eoghan Casey brings together a few top experts to create the first detailed guide for professionals who are already familiar with digital evidence. The Handbook of Computer Crime Investigation helps readers master the forensic analysis of computer systems with a three-part approach covering tools, technology, and case studies. The Tools section provides the details on leading software programs, with each chapter written by that product's creator. The section ends with an objective comparison of the strengths and limitations of each tool. The main Technology section provides the technical "how to" information for collecting and analyzing digital evidence in common situations, starting with computers, moving on to networks, and culminating with embedded systems. The Case Examples section gives readers a sense of the technical, legal, and practical challenges that arise in real computer investigations. The Tools section provides details of leading hardware and software The main Technology section provides the technical "how to" information for collecting and analysing digital evidence in common situations Case Examples give readers a sense of the technical, legal, and practical challenges that arise in real computer investigations

Gain basic skills in network forensics and learn how to apply them effectively Key FeaturesInvestigate network threats with easePractice forensics tasks such as intrusion detection, network analysis, and scanningLearn forensics investigation at the network levelBook Description Network forensics is a subset of digital forensics that deals with network attacks and their investigation. In the era of network attacks and malware threat, it ' s now more important than ever to have skills to investigate network attacks and vulnerabilities. Hands-On Network Forensics starts with the core concepts within network forensics, including coding, networking, forensics tools, and methodologies for forensic investigations. You ' ll then explore the tools used for network forensics, followed by understanding how to apply those tools to a PCAP file and write the accompanying report. In addition to this, you will understand how statistical flow analysis, network enumeration, tunneling and encryption, and malware detection can be used to investigate your network. Towards the end of this book, you will discover how network correlation works and how to bring all the information from different types of network devices together. By the end of this book, you will have gained hands-on experience of performing forensics analysis tasks. What you will learnDiscover and interpret encrypted trafficLearn about various protocolsUnderstand the malware language over wireGain insights into the most widely used malwareCorrelate data collected from attacksDevelop tools and custom scripts for network forensics automationWho this book is for The book targets incident responders, network engineers, analysts, forensic engineers and network administrators who want to extend their knowledge from the surface to the deep levels of understanding the science behind network protocols, critical indicators in an incident and conducting a forensic search over the wire.

Updated with the latest advances from the field, GUIDE TO COMPUTER FORENSICS AND INVESTIGATIONS, Fifth Edition combines all-encompassing topic coverage and authoritative information from seasoned experts to deliver the most comprehensive forensics resource available. This proven author team's wide ranging areas of expertise mirror the breadth of coverage provided in the book, which focuses on techniques and practices for gathering and analyzing evidence used to solve crimes involving computers. Providing clear instruction on the tools and techniques of the trade, it introduces readers to every step of the computer forensics investigation-from lab set-up to testifying in court. It also details step-by-step guidance on how to use current forensics software.

Appropriate for learners new to the field, it is also an excellent refresher and technology update for professionals in law enforcement, investigations, or computer security. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Sixth IFIP WG 11.9 International Conference on Digital Forensics, Hong Kong, China, January 4-6, 2010, Revised Selected Papers

Learning Network Forensics

The Best Damn Cybercrime and Digital Forensics Book Period

Computer Forensics: Hard Disk and Operating Systems

Digital Forensic Readiness for Wireless Local Area Networks

Hands-On Network Forensics

The Computer Forensic Series by EC-Council provides the knowledge and skills to identify, track, and prosecute the cyber-criminal. The series is comprised of five books covering a broad base of topics in Computer Hacking Forensic Investigation, designed to expose the reader to the process of detecting attacks and collecting evidence in a forensically sound manner with the intent to report crime and prevent future attacks. Learners are introduced to advanced techniques in computer investigation and analysis with interest in generating potential legal evidence. In full, this and the other four books provide preparation to identify evidence in computer related crime and abuse cases as well as track the intrusive hacker's path through a client system. The series and accompanying labs help prepare the security student or professional to profile an intruder's footprint and gather all necessary information and evidence to support prosecution in a court of law. Investigating Wireless Networks and Devices discusses how to investigate wireless attacks, as well as PDA, i-Pod, i-Phone and BlackBerry forensics. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Understanding the latest capabilities in the cyber threat landscape as well as the cyber forensic challenges and approaches is the best way users and organizations can prepare for potential negative events. Adopting an experiential learning approach, this book describes how cyber forensics researchers, educators and practitioners can keep pace with technological advances, and acquire the essential knowledge and skills, ranging from IoT forensics, malware analysis, and CCTV and cloud forensics to network forensics and financial investigations. Given the growing importance of incident response and cyber forensics in our digitalized society, this book will be of interest and relevance to researchers, educators and practitioners in the field, as well as students wanting to learn about cyber forensics.

The Computer Forensic Series by EC-Council provides the knowledge and skills to identify, track, and prosecute the cyber-criminal. The series is comprised of five books covering a broad base of topics in Computer Hacking Forensic Investigation, designed to expose the reader to the process of detecting attacks and collecting evidence in a forensically sound manner with the intent to report crime and prevent future attacks. Learners are introduced to advanced techniques in computer investigation and analysis with interest in generating potential legal evidence. In full, this and the other four books provide preparation to identify evidence in computer related crime and abuse cases as well as track the intrusive hacker's path through a client system. The series and accompanying labs help prepare the security student or professional to profile an intruder's footprint and gather all necessary information and evidence to support prosecution in a court of law. Hard Disks, File and Operating Systems provides a basic understanding of file systems, hard disks and digital media devices. Boot processes, Windows and Linux Forensics and application of password crackers are all discussed. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

“This book contains some of the most up-to-date information available anywhere on a wide variety of topics related to Techno Security. As you read the book, you will notice that the authors took the approach of identifying some of the risks, threats, and vulnerabilities and then discussing the countermeasures to address them. Some of the topics and thoughts discussed here are as new as tomorrow's headlines, whereas others have been around for decades without being properly addressed. I hope you enjoy this book as much as we have enjoyed working with the various authors and friends during its development. —Donald Withers, CEO and Cofounder of TheTrainingCo. • Jack Wiles, on Social Engineering offers up a potpourri of tips, tricks, vulnerabilities, and lessons learned from 30-plus years of experience in the worlds of both physical and technical security. • Russ Rogers on the Basics of Penetration Testing illustrates the standard methodology for penetration testing: information gathering, network enumeration, vulnerability identification, vulnerability exploitation, privilege escalation, expansion of reach, future access, and information compromise. • Johnny Long on No Tech Hacking shows how to hack without touching a computer using tailgating, lock bumping, shoulder surfing, and dumpster diving. • Phil Drake on Personal, Workforce, and Family Preparedness covers the basics of creating a plan for you and your family, identifying and obtaining the supplies you will need in an emergency. • Kevin O'Shea on Seizure of Digital Information discusses collecting hardware and information from the scene. • Amber Schroader on Cell Phone Forensics writes on new methods and guidelines for digital forensics. • Dennis O'Brien on RFID: An Introduction, Security Issues, and Concerns discusses how this well-intended technology has been eroded and used for fringe implementations. • Ron Green on Open Source Intelligence details how a good Open Source Intelligence program can help you create leverage in negotiations, enable smart decisions regarding the selection of goods and services, and help avoid pitfalls and hazards. • Raymond Blackwood on Wireless Awareness: Increasing the Sophistication of Wireless Users maintains it is the technologist's responsibility to educate, communicate, and support users despite their lack of interest in understanding how it works. • Greg Kipper on What is Steganography? provides a solid understanding of the basics of steganography, what it can and can't do, and arms you with the information you need to set your career path. • Eric Cole on Insider Threat discusses why the insider threat is worse than the external threat and the effects of insider threats on a company.

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Forensic Investigations and Risk Management in Mobile and Wireless Communications

Techno Security's Guide to Managing Risks for IT Managers, Auditors, and Investigators

Computer Crime Scene Investigation

Investigating and Analyzing Malicious Network Activity

Incident Response Essentials

Mobile Computing and Wireless Networks: Concepts, Methodologies, Tools, and Applications

Cybercrime and Information Technology: Theory and Practice—The Computer Network Infostructure and Computer Security, Cybersecurity Laws, Internet of Things (IoT), and Mobile Devices is an introductory text addressing current technology, trends, and security issues. While many books on the market cover investigations, forensic recovery, and presentation of evidence, and others explain computer and network security, this book explores both, explaining the essential principles governing computers, wireless and mobile devices, the Internet of Things, cloud systems, and their significant vulnerabilities. Only with this knowledge can students truly appreciate the security challenges and opportunities for cybercrime that cannot be uncovered, investigated, and adjudicated unless they are understood. The legal portion of the book is an overview of the legal system in the United States, including cyberlaw standards, and regulations affecting cybercrime. This section includes cases in progress that are shaping and developing legal precedents. As is often the case, new technologies require new statues and regulations—something the law is often slow to move on given the current speed in which technology advances. Key Features: Provides a strong foundation of cybercrime knowledge along with the core concepts of networking, computer security, Internet of Things (IoTs), and mobile devices. Addresses legal statutes and precedents Fundamental to understanding investigative and forensic issues relative to evidence collection and preservation. Identifies the new security challenges of emerging technologies including mobile devices, cloud computing, Software-as-a-Service (SaaS), VMware, and the Internet of Things. Strengthens student understanding of the fundamentals of computer and network security, concepts that are often glossed over in many textbooks, and includes the study of cybercrime as critical forward-looking cybersecurity challenges. Cybercrime and Information Technology is a welcome addition to the literature, particularly for those professors seeking a more hands-on, forward-looking approach to technology and trends. Coverage is applicable to all forensic science courses in computer science and forensic programs, particularly those housed in criminal justice departments emphasizing digital evidence and investigation processes. The textbook is appropriate for courses in the Computer Forensics and Criminal Justice curriculum, and is relevant to those studying Security Administration, Public Administrations, Police Studies, Business Administration, Computer Science, and Information Systems. An Instructor's Manual with Test Bank and chapter PowerPoint slides is available to qualified professors for use in classroom instruction.

This textbook provides an introduction to digital forensics, a rapidly evolving field for solving crimes. Beginning with the basic concepts of computer forensics, each of the book's 21 chapters focuses on a particular forensic topic composed of two parts: background knowledge and hands-on experience through practice exercises. Each theoretical or background section concludes with a series of review questions, which are prepared to test students' understanding of the materials, while the practice exercises are intended to afford students the opportunity to apply the concepts introduced in the section on background knowledge. This experience-oriented textbook is meant to assist students in gaining a better understanding of digital forensics through hands-on practice in collecting and preserving digital evidence by completing various exercises. With 20 student-directed, inquiry-based practice exercises, students will better understand digital forensic concepts and learn digital forensic investigation techniques. This textbook is intended for upper undergraduate and graduate-level students who are taking digital-forensic related courses or working in digital forensics research. It can also be used by digital forensics practitioners, IT security analysts, and security engineers working in the IT security industry, particular IT professionals responsible for digital investigation and incident handling or researchers working in these related fields as a reference book.

Digital Forensics, Investigation, and Response, Fourth Edition examines the fundamentals of system forensics, addresses the tools, techniques, and methods used to perform computer forensics and investigation, and explores incident and intrusion response,

Over the past decade, wireless mobile communication technology based on the IEEE 802.11 Wireless Local Area Networks (WLANs) has been adopted worldwide on a massive scale. However, as the number of wireless users has soared, so has the possibility of cybercrime. WLAN digital forensics is seen as not only a response to cybercrime in wireless networks, but also a means to stem the increase of cybercrime in WLANs. The main challenge in WLAN digital forensics is to intercept and preserve all the communications generated by the mobile stations and to conduct a proper digital forensic investigation on them. In an attempt to address this issue, the study presents firstly how a WLAN functions by simply studying the association mechanism between mobile stations and the Access Point (AP), and secondly how traffic is transmitted from a source to a destination address and the security attacks associated with such transmission. Furthermore, the dissertation analyses different digital forensic process models because every digital forensic investigation should follow a digital forensic investigation process. The study also looks at various tools for extracting the everincreasing amount of evidential data that passes through the WLAN. These tools are scrutinised to observe if they possess any digital forensic capabilities and a model is proposed to implement digital forensic readiness in WLANs. The proposed model is designed to monitor, log, preserve, analyse and report wireless network traffic for digital forensic investigations. Thus, the information needed by the digital forensic experts is rendered readily available, should it become necessary to conduct a digital forensic investigation. The availability of this digital information maximises the chances of its being used as digital evidence and reduces the cost of conducting the entire digital forensic investigation process. The proposed model is then translated into a prototype to show its viability. The results of the prototype are then analysed through experiments. The experiments were found to increase the usefulness of the forensically captured network traffic. The experiments showed that organisations that use WLANs can greatly benefit by deploying the forensic readiness model and if an incident were to be reported later on and a digital forensic investigation is warranted, the organisation would simple extract the forensically captured and stored data and conduct an analysis rather than conducting the investigation from the beginning. The dissertation also provides a critical analysis of the proposed solution and lastly, the dissertation provides the legal issues with regard to traffic interception in the South African context.

Investigation Procedures and Response Chfi

Emerging Research and Opportunities

Investigating Data and Image Files, Investigating Network Intrusions and Cybercrime, Investigating File and Operating Systems Wireless Networks and St
A Hands-on Practical Approach
A Practical Guide to Computer Forensics Investigations
Computer Forensics