

Also, learn how to collect evidence, document the scene, and how deleted data can be recovered. The new Second Edition of this book provides you with completely up-to-date real-world examples and all the key technologies used in digital forensics, as well as new coverage of network intrusion response, how hard drives are organized, and electronic discovery. You'll also learn how to incorporate quality assurance into an investigation, how to prioritize evidence items to examine (triage), case processing, and what goes into making an expert witness. The Second Edition also features expanded resources and references, including online resources that keep you current, sample legal documents, and suggested further reading. Learn what Digital Forensics entails Build a toolkit and prepare an investigative plan Understand the common artifacts to look for in an exam Second Edition features all-new coverage of hard drives, triage, network intrusion response, and electronic discovery; as well as updated case studies, expert interviews, and expanded resources and references

Searching and Seizing Computers and Obtaining Electronic Evidence in Criminal Investigations
Computer Forensics JumpStart
Digital Forensics for Legal Professionals
Forensic Tools and Technology
Malware Forensics Field Guide for Windows Systems
Computer Forensics For Dummies
From Data to Digital Evidence

EnCase Computer Forensics -- The Official EnCase Certified Examiner Study GuideJohn Wiley & Sons

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

Build your organization's cyber defense system by effectively implementing digital forensics and incident management techniques Key Features Create a solid incident response framework and manage cyber incidents effectively Perform malware analysis for effective incident response Explore real-life scenarios that effectively use threat intelligence and modeling techniques Book Description An understanding of how digital forensics integrates with the overall response to cybersecurity incidents is key to securing your organization's infrastructure from attacks. This updated second edition will help you perform cutting-edge digital forensic activities and incident response. After focusing on the fundamentals of incident response that are critical to any information security team, you'll move on to exploring the incident response framework. From understanding its importance to creating a swift and effective response to security incidents, the book will guide you with the help of useful examples. You'll later get up to speed with digital forensic techniques, from acquiring evidence and examining volatile memory through to hard drive examination and network-based evidence. As you progress, you'll discover the role that threat intelligence plays in the incident response process. You'll also learn how to prepare an incident response report that documents the findings of your analysis. Finally, in addition to various incident response activities, the book will address malware analysis, and demonstrate how you can proactively use your digital forensic skills in threat hunting. By the end of this book, you'll have learned how to efficiently investigate and report unwanted security breaches and incidents in your organization. What you will learn Create and deploy an incident response capability within your own organization Perform proper evidence acquisition and handling Analyze the evidence collected and determine the root cause of a security incident Become well-versed with memory and log analysis Integrate digital forensic techniques and procedures into the overall incident response process Understand the different techniques for threat hunting Write effective incident reports that document the key findings of your analysis Who this book is for This book is for cybersecurity and information security professionals who want to implement digital forensics and incident response in their organization. You will also find the book helpful if you are new to the concept of digital forensics and are looking to get started with the fundamentals. A basic understanding of operating systems and some knowledge of networking fundamentals are required to get started with this book.

"Cybercrime and cyber-terrorism represent a serious challenge to society as a whole." - Hans Christian Krüger, Deputy Secretary General of the Council of Europe Crime has been with us as long as laws have existed, and modern technology has given us a new type of criminal activity: cybercrime. Computer and network related crime is a problem that spans the globe, and unites those in two disparate fields: law enforcement and information technology. This book will help both IT pros and law enforcement specialists understand both their own roles and those of the other, and show why that understanding and an organized, cooperative effort is necessary to win the fight against this new type of crime. 62% of US companies reported computer-related security breaches resulting in damages of \$124 million dollars. This data is an indication of the massive need for Cybercrime training within the IT and law enforcement communities. The only book that covers Cybercrime from forensic investigation through prosecution. Cybercrime is one of the battlefields in the war against terror.

EnCE EnCase Computer Forensics

Hands-On Activities in Digital Forensics

Hacking Exposed Computer Forensics

EnCase Certified Examiner Study Guide

Guide to Computer Forensics and Investigations

Digital Forensics Workbook

Handbook of Electronic Security and Digital Forensics

Investigating the Cyber Breach The Digital Forensics Guide for the Network Engineer · Understand the realities of cybercrime and today's attacks · Build a digital forensics lab to test tools and methods, and gain expertise · Take the right actions as soon as you discover a breach · Determine the full scope of an investigation and the role you'll play · Properly collect, document, and preserve evidence and data · Collect and analyze data from PCs, Macs, IoT devices, and other endpoints · Use packet logs, NetFlow, and scanning to build timelines, understand network activity, and collect evidence · Analyze iOS and Android devices, and understand encryption-related obstacles to investigation · Investigate and trace email, and identify fraud or abuse · Use social media to investigate individuals or online identities · Gather, extract, and analyze breach data with Cisco tools and techniques · Walk through common breaches and responses from start to finish · Choose the right tool for each task, and explore alternatives that might also be helpful The professional's go-to digital forensics resource for countering attacks right now Today, cybersecurity and networking professionals know they can't possibly prevent every breach, but they can substantially reduce risk by quickly identifying and blocking breaches as they occur. Investigating the Cyber Breach: The Digital Forensics Guide for the Network Engineer is the first comprehensive guide to doing just that. Writing for working professionals, senior cybersecurity experts Joseph Muniz and Aamir Lakhani present up-to-the-minute techniques for hunting attackers, following their movements within networks, halting exfiltration of data and intellectual property, and collecting evidence for investigation and prosecution. You'll learn how to make the most of today's best open source and Cisco tools for cloning, data analytics, network and endpoint breach detection, case management, monitoring, analysis, and more. Unlike digital forensics books focused primarily on post-attack evidence gathering, this one offers complete coverage of tracking threats, improving intelligence, rooting out dormant malware, and responding effectively to breaches underway right now. This book is part of the Networking Technology: Security Series from Cisco Press®, which offers networking professionals valuable information for constructing efficient networks, understanding new technologies, and building successful careers.

Guidance Software's EnCase product is the premier computer forensics tool on the market, used in law enforcement labs for digital evidence collection; in commercial settings for incident response and information assurance; and by the FBI and Department of Defense to detect domestic and international threats This guide prepares readers for both the CBT and practical phases of the exam that validates mastery of EnCase Written by two law enforcement professionals who are computer forensics specialists and EnCase trainers Includes the EnCase Legal Journal, essential for forensics investigators who need to be sure they are operating within the law and able to give expert testimony The CD includes tools to help readers prepare for Phase II of the certification, which requires candidates to examine computer evidence, as well as a searchable PDF of the text

Learn the skills you need to take advantage of Kali Linux for digital forensics investigations using this comprehensive guide About This Book Master powerful Kali Linux tools for digital investigation and analysis Perform evidence acquisition, preservation, and analysis using various tools within Kali Linux Implement the concept of cryptographic hashing and imaging using Kali Linux Perform memory forensics with Volatility and internet forensics with Xplico. Discover the capabilities of professional forensic tools such as Autopsy and DFF (Digital Forensic Framework) used by law enforcement and military personnel alike Who This Book Is For This book is targeted at forensics and digital investigators, security analysts, or any stakeholder interested in learning digital forensics using Kali Linux. Basic knowledge of Kali Linux will be an advantage. What You Will Learn Get to grips with the fundamentals of digital forensics and explore best practices Understand the workings of file systems, storage, and data fundamentals Discover incident response procedures and best practices Use DC3DD and Guymager for acquisition and preservation techniques Recover deleted data with Foremost and Scalpel Find evidence of accessed programs and malicious programs using Volatility. Perform network and internet capture analysis with Xplico Carry out professional digital forensics investigations using the DFF and Autopsy automated forensic suites In Detail Kali Linux is a Linux-based distribution used mainly for penetration testing and digital forensics. It has a wide range of tools to help in forensics investigations and incident response mechanisms. You will start by understanding the fundamentals of digital forensics and setting up your Kali Linux environment to perform different investigation practices. The book will delve into the realm of operating systems and the various formats for file storage, including secret hiding places unseen by the end user or even the operating system. The book will also teach you to create forensic images of data and maintain integrity using hashing tools. Next, you will also master some advanced topics such as autopsies and acquiring investigation data from the network, operating system memory, and so on. The book introduces you to powerful tools that will take your forensic abilities and investigations to a professional level, catering for all aspects of full digital forensic investigations from hashing to reporting. By the end of this book, you will have had hands-on experience in implementing all the pillars of digital forensics—acquisition, extraction, analysis, and presentation using Kali Linux tools. Style and approach While covering the best practices of digital forensics investigations, evidence acquisition, preservation, and analysis, this book delivers easy-to-follow practical examples and detailed labs for an easy approach to learning forensics. Following the guidelines within each lab, you can easily practice all readily available forensic tools in Kali Linux, within either a dedicated physical or virtual machine.

Conduct repeatable, defensible investigations with EnCase Forensic v7 Maximize the powerful tools and features of the industry-leading digital investigation software. Computer Forensics and Digital Investigation with EnCase Forensic v7 reveals, step by step, how to detect illicit activity, capture and verify evidence, recover deleted and encrypted artifacts, prepare court-ready documents, and ensure legal and regulatory compliance. The book illustrates each concept using downloadable evidence from the National Institute of Standards and Technology CReDS. Customizable sample procedures are included throughout this practical guide. Install EnCase Forensic v7 and customize the user interface Prepare your investigation and set up a new case Collect and verify evidence from suspect computers and networks Use the EnCase Evidence Processor and Case Analyzer Uncover clues using keyword searches and filter results through GREP Work with bookmarks, timelines, hash sets, and libraries Handle case closure, final disposition, and evidence destruction Carry out field investigations using EnCase Portable Learn to program in EnCase EnScript

The Official EnCase Certified Examiner Study Guide, 3rd Edition

Windows Forensics Cookbook

Cyber Forensics

A beginner's guide to searching, analyzing, and securing digital evidence

Simulation and Analysis of Mathematical Methods in Real-Time Engineering Applications

The Digital Forensics Guide for the Network Engineer

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.

EnCE certification tells the world that you've not only mastered the use of EnCase Forensic Software, but also that you have acquired the in-depth forensics knowledge and techniques you need to conduct complex computer examinations. This official study guide, written by a law enforcement professional who is an expert in EnCE and computer forensics, provides the complete instruction, advanced testing software, and solid techniques you need to prepare for the exam.

This is the official CHFI (Computer Hacking Forensics Investigator) study guide for professionals studying for the forensics exams and for professionals needing the skills to identify an intruder's footprints and properly gather the necessary evidence to prosecute. The EC-Council offers certification for ethical hacking and computer forensics. Their ethical hacker exam has become very popular as an industry gauge and we expect the forensics exam to follow suit. Material is presented in a logical learning sequence: a section builds upon previous sections and a chapter on previous chapters. All concepts, simple and complex, are defined and explained when they appear for the first time. This book includes: Exam objectives covered in a chapter are clearly explained in the beginning of the chapter, Notes and Alerts highlight crucial points, Exam's Eye View emphasizes the important points from the exam's perspective, Key Terms present definitions of key terms used in the chapter, Review Questions contains the questions modeled after real exam questions based on the material covered in the chapter. Answers to the questions are presented with explanations. Also included is a full practice exam modeled after the real exam. The only study guide for CHFI, provides 100% coverage of all exam objectives. CHFI Training runs hundreds of dollars for self tests to thousands of dollars for classroom training.

An explanation of the basic principles of data This book explains the basic principles of data as buildingblocks of electronic evidential matter, which are used in a cyberforensics investigations. The entire text is written with noreference to a particular operation system or environment, thus itis applicable to all work environments, cyber investigationscenarios, and technologies. The text is written in astep-by-step manner, beginning with the elementary buildingblocks of data progressing upwards to the representation andstorage of information. It includes practical examples andillustrations throughout to guide the reader.

EnCase Certified Examiner Study Guide

Computer Forensics InfoSec Pro Guide

Digital Forensics Field Guides

Teaching the Jury through Effective Use of Visuals

Digital Forensics with Kali Linux

Learn Computer Forensics

Incident Response Essentials

The Definitive Guide to File System Analysis: Key Concepts and Hands-on Techniques Most digital evidence is stored within the computer's file system, but understanding how file systems work is one of the most technically challenging concepts for a digital investigator because there exists little documentation. Now, security expert Brian Carrier has written the definitive reference for everyone who wants to understand and be able to testify about how file system analysis is performed. Carrier begins with an overview of investigation and computer foundations and then gives an authoritative, comprehensive, and illustrated overview of contemporary volume and file systems: Crucial information for discovering hidden evidence, recovering deleted data, and validating your tools. Along the way, he describes data structures, analyzes example disk images, provides advanced investigation scenarios, and uses today's most valuable open source file system analysis tools—including tools he personally developed. Coverage includes Preserving the digital crime scene and duplicating hard disks for "dead analysis" Identifying hidden data on a disk's Host Protected Area (HPA) Reading source data: Direct versus BIOS access, dead versus live acquisition, error handling, and more Analyzing DOS, Apple, and GPT partitions; BSD disk labels; and Sun Volume Table of Contents using key concepts, data structures, and specific techniques Analyzing the contents of multiple disk volumes, such as RAID and disk spanning Analyzing FAT, NTFS, Ext2, Ext3, UFS1, and UFS2 file systems using key concepts, data structures, and specific techniques Finding evidence: File metadata, recovery of deleted files, data hiding locations, and more Using The Sleuth Kit (TSK), Autopsy Forensic Browser, and related open source tools When it comes to file system analysis, no other book offers this much detail or expertise. Whether you're a digital forensics specialist, incident response team member, law enforcement officer, corporate security specialist, or auditor, this book will become an indispensable resource for forensic investigations, no matter what analysis tools you use.

Security Smarts for the Self-Guided IT Professional Find out how to excel in the field of computer forensics investigations. Learn what it takes to transition from an IT professional to a computer forensic examiner in the private sector. Written by a Certified Information Systems Security Professional.

Computer Forensics: InfoSec Pro Guide is filled with real-world case studies that demonstrate the concepts covered in the book. You'll learn how to set up a forensics lab, select hardware and software, choose forensic imaging procedures, test your tools, capture evidence from different sources, follow a

sound investigative process, safely store evidence, and verify your findings. Best practices for documenting your results, preparing reports, and presenting evidence in court are also covered in this detailed resource. Computer Forensics: InfoSec Pro Guide features: Lingo—Common security terms defined so that you're in the know on the job IMHO—Frank and relevant opinions based on the author's years of industry experience Budget Note—Tips for getting security technologies and processes into your organization's budget In Actual Practice—Exceptions to the rules of security explained in real-world contexts Your Plan—Customizable checklists you can use on the job now Into Action—Tips on how, why, and when to apply new skills and techniques at work

EnCE certification tells the world that you've not only mastered the use of EnCase Forensic Software, but also that you have acquired the in-depth forensics knowledge and techniques you need to conduct complex computer examinations. This official study guide, written by a law enforcement professional who is an expert in EnCE and computer forensics, provides the complete instruction, advanced testing software, and solid techniques you need to prepare for the exam. Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

Digital Forensics for Legal Professionals provides you with a guide to digital technology forensics in plain English. In the authors' years of experience in working with attorneys as digital forensics experts, common questions arise again and again: "What do I ask for?" "Is the evidence relevant?" "What does this item in the forensic report mean?" "What should I ask the other expert?" "What should I ask you?" "Can you explain that to a jury?" This book answers many of those questions in clear language that is understandable by non-technical people. With many illustrations and diagrams that will be usable in court, they explain technical concepts such as unallocated space, forensic copies, timeline artifacts and metadata in simple terms that make these concepts accessible to both attorneys and juries. The authors also explain how to determine what evidence to ask for, evidence might be that could be discoverable, and the methods for getting to it including relevant subpoena and motion language. Additionally, this book provides an overview of the current state of digital forensics, the right way to select a qualified expert, what to expect from a qualified expert and how to properly use experts before and during trial. Includes a companion Web site with: courtroom illustrations, and examples of discovery motions Provides examples of direct and cross examination questions for digital evidence Contains a reference of definitions of digital forensic terms, relevant case law, and resources for the attorney

Computer Forensics and Digital Investigation with EnCase Forensic

EnCase Computer Forensics, includes DVD

EnCase Computer Forensics: The Official EnCE

EnCase Computer Forensics -- The Official EnCE

EnCase174: Computer Forensics

Annotation A comprehensive and broad introduction to computer and intrusion forensics, covering the areas of law enforcement, national security and corporate fraud, this practical book helps professionals understand case studies from around the world, and treats key emerging areas such as stegoforensics, image identification, authorship categorization, and machine learning.

The widespread use of information and communications technology (ICT) has created a global platform for the exchange of ideas, goods and services, the benefits of which are enormous. However, it has also created boundless opportunities for fraud and deception. Cybercrime is one of the biggest growth industries around the globe, whether it is in the form of violation of company policies, fraud, hate crime, extremism, or terrorism. It is therefore paramount that the security industry raises its game to combat these threats. Today's top priority is to use computer technology to fight computer crime, as our commonwealth is protected by firewalls rather than firepower. This is an issue of global importance as new technologies have provided a world of opportunity for criminals. This book is a compilation of the collaboration between the researchers and practitioners in the security field; and provides a comprehensive literature on current and future e-security needs across applications, implementation, testing or investigative techniques, judicial processes and criminal intelligence. The intended audience includes members in academia, the public and private sectors, students and those who are interested in and will benefit from this handbook.