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S2J11B - SANTOS OLSON

In this book, I will give you dozens of ways to protect your Internet network and devices. This book covers topics such as email, passwords, and software security. It may seem too general, but all of these tips are excellent at defending against corona-themed scams/exploits/attacks. In fact, whether for COVID-19 or another emergency, these suggestions reinforce good security practices and habits. You can choose to implement any number of these tips or at least understand the reasoning behind them. These suggestions focus on practicality and things you can do right now. This is a general guide meant to capture the essence of what you need. Pursue further research if you must. The responsibility lies on your shoulders. And finally, stay safe out there. Be well and take care.

Seven Deadliest Microsoft Attacks explores some of the deadliest attacks made against Microsoft software and networks and how these attacks can impact the confidentiality, integrity, and availability of the most closely guarded company secrets. If you need to keep up with the latest hacks, attacks, and exploits effecting Microsoft products, this book is for you. It pinpoints the most dangerous hacks and exploits specific to Microsoft applications, laying out the anatomy of these attacks including how to make your system more secure. You will discover the best ways to defend against these vicious hacks with step-by-step instruction and learn techniques to make your computer and network impenetrable. The book consists of seven chapters that cover the seven deadliest attacks against Microsoft software and networks: attacks against Windows passwords; escalation attacks; stored procedure attacks; mail service attacks; client-side ActiveX and macro attacks; Web service attacks; and multi-tier attacks. Each chapter provides an overview of a single Microsoft software product, how it is used, and some of the core functionality behind the software. Furthermore, each chapter explores the anatomy of attacks against the software, the dangers of an attack, and possible defenses to help prevent the attacks described in the scenarios. This book will be a valuable resource for those responsible for oversight of network security for either small or large organizations. It will also benefit those interested in learning the details behind attacks against Microsoft infrastructure, products, and services; and how to defend against them. Network administrators and integrators will find value in learning how attacks can be executed, and transfer knowledge gained from this book into improving existing deployment and integration practices. Windows Operating System-Password Attacks Active Directory-Escalation of Privilege SQL Server-Stored Procedure Attacks Exchange Server-Mail Service Attacks Office-Macros and ActiveX Internet Information Services(IIS)-Web Serive Attacks SharePoint-Multi-tier Attacks

New security risks, continuously evolving regulation and increasing security standards have created new and growing needs for secure internal information transfers, which SSH provides. This book addresses these new trends in depth, offering the most up-to-date information on the integration of SSH into a security environment. It covers the newest features and applications of SSH-2 (which received Proposed Standard status from the IETF in 2006). SSH2 is more secure than previous versions and has many expanded uses on a wider variety of computing platforms. Another particular note driving new SSH2 adoption are the requirements of recent legislation (PCI/HIPAA/SOX/FISMA). SSH 2 has become an even more valuable tool, as it provides communications security compliance with the latest standards. This book offers the most up-to-date information on SSH2 in a practical, hands-on, tutorial-style reference that goes well beyond UNIX implementation. It concentrates on the latest version of SSH 2 with all new information. * Discover why SSH2 offers more robust security than SSH1 and how to incorporate it into your network administration software toolbox.

Cisco Router and Switch ForensicsInvestigating and Analyzing Malicious Network ActivitySyngressCisco 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 at-

tack 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 testimonyCisco Router and Switch ForensicsInvestigating and Analyzing Malicious Network ActivityCisco 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.Cisco CCNA/CCENT Exam 640-802, 640-822, 640-816 Preparation KitSyngressThree exams, two certifications, one complete Cisco training solution for networking professionals! The CCNA exam is an entry-level IT certification from Cisco Systems for professionals installing and maintaining route and switched networks. The current exam material covers networking concepts along with new and updated content on network security fundamentals and the basics of wireless networking. This book can be used as a study guide for either track you choose to receive your CCNA - the single exam, 640-802 or the combined 640-822 and 640-816, and for the CCENT certification which a student will receive upon completion of the 640-822 exam. The author team has arranged the content so that you can easily identify the objectives for each half of the combined exam. * Layout of the guide parallels the CCNA/CCENT exam objectives for ease of study * Details all aspects of the exams including security and wireless networking essentials * Covers everything from introductory to advanced topics—keeping the beginner and intermediate IT professional in mind * Chapter ending questions and answers allow for graduated learning * Two practice exams on the accompanying DVD help eliminate test-day jittersTHE SECRET OF CYBER SECURITYBY - RANJAN RAJARanjan RajaCyber Security refers to the protection of Information system, the data on then and the service they provide, from unauthorized access, harm or misuses. This includes harm caused intentionally by the operator of the system, or accidentally, as a result in falling to follow Security procedures.Cybercrime and Cloud Forensics: Applications for Investigation ProcessesApplications for Investigation ProcessesIGI GlobalWhile cloud computing continues to transform developments in information technology services,

these advancements have contributed to a rise in cyber attacks; producing an urgent need to extend the applications of investigation processes. Cybercrime and Cloud Forensics: Applications for Investigation Processes presents a collection of research and case studies of applications for investigation processes in cloud computing environments. This reference source brings together the perspectives of cloud customers, security architects, and law enforcement agencies in the developing area of cloud forensics.Digital Forensics, Investigation, and ResponseJones & Bartlett LearningDigital 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,Digital ArchaeologyThe Art and Science of Digital ForensicsPearson EducationThe Definitive, Up-to-Date Guide to Digital Forensics The rapid proliferation of cyber crime is increasing the demand for digital forensics experts in both law enforcement and in the private sector. In Digital Archaeology, expert practitioner Michael Graves has written the most thorough, realistic, and up-to-date guide to the principles and techniques of modern digital forensics. Graves begins by providing a solid understanding of the legal underpinnings of and critical laws affecting computer forensics, including key principles of evidence and case law. Next, he explains how to systematically and thoroughly investigate computer systems to unearth crimes or other misbehavior, and back it up with evidence that will stand up in court. Drawing on the analogy of archaeological research, Graves explains each key tool and method investigators use to reliably uncover hidden information in digital systems. His detailed demonstrations often include the actual syntax of command-line utilities. Along the way, he presents exclusive coverage of facilities management, a full chapter on the crucial topic of first response to a digital crime scene, and up-to-the-minute coverage of investigating evidence in the cloud. Graves concludes by presenting coverage of important professional and business issues associated with building a career in digital forensics, including current licensing and certification requirements. Topics Covered Include Acquiring and analyzing data in ways consistent with forensic procedure Recovering and examining e-mail, Web, and networking activity Investigating users' behavior on mobile devices Overcoming anti-forensics measures that seek to prevent data capture and analysis Performing comprehensive electronic discovery in connection with lawsuits Effectively managing cases and documenting the evidence you find Planning and building your career in digital forensics Digital Archaeology is a key resource for anyone preparing for a career as a professional investigator; for IT professionals who are sometimes called upon to assist in investigations; and for those seeking an explanation of the processes involved in preparing an effective defense, including how to avoid the legally indefensible destruction of digital evidence.12 Methods to Help You Quit Smoking for GoodRanjan RajaAs you may know, smoking can cause health challenges including heart disease and cancer. It's easy for someone to say that one should quit, but doing it is a different thing altogether. If you've ever tried to quit smoking before, but couldn't, it may be time to give it another try. Many people who have quit smoking had to try a few times to make it happen.- Exploring Careers in Cybersecurity and Digital ForensicsRowman & LittlefieldExploring Careers in Cybersecurity and Digital Forensics serves as a career guide, providing information about education, certifications, and tools to help those making career decisions within the cybersecurity field.Introduction to Security and Network ForensicsCRC PressKeeping up with the latest developments in cyber security requires ongoing commitment, but without a firm foundation in the principles of computer security and digital forensics, those tasked with safeguarding private information can get lost in a turbulent and shifting sea. Providing such a foundation, Introduction to Security and Network Forensics covers the basic principles of intrusion detection systems, encryption, and authentication, as well as the key academic principles related to digital forensics. Starting with an overview of general security concepts, it addresses hashing, digital certificates, enhanced software security, and network security. The text introduces the concepts of risk, threat analysis, and network forensics, and includes online access to an abundance of ancillary materials, including labs, Cisco chal-

allenges, test questions, and web-based videos. The author provides readers with access to a complete set of simulators for routers, switches, wireless access points (Cisco Aironet 1200), PIX/ASA firewalls (Version 6.x, 7.x and 8.x), Wireless LAN Controllers (WLC), Wireless ADUs, ASDMs, SDMs, Juniper, and much more, including: More than 3,700 unique Cisco challenges and 48,000 Cisco Configuration Challenge Elements 60,000 test questions, including for Certified Ethical Hacking and CISSP® 350 router labs, 180 switch labs, 160 PIX/ASA labs, and 80 Wireless labs Rounding out coverage with a look into more advanced topics, including data hiding, obfuscation, web infrastructures, and cloud and grid computing, this book provides the fundamental understanding in computer security and digital forensics required to develop and implement effective safeguards against ever-evolving cyber security threats. Along with this, the text includes a range of online lectures and related material, available at: <http://asecuritybook.com>. Cyber Forensics A Field Manual for Collecting, Examining, and Preserving Evidence of Computer Crimes, Second Edition CRC Press Designed as an introduction and overview to the field, Cyber Forensics: A Field Manual for Collecting, Examining, and Preserving Evidence of Computer Crimes, Second Edition integrates theory and practice to present the policies, procedures, methodologies, and legal ramifications and implications of a cyber forensic investigation. The authors guide you step-by-step through the basics of investigation and introduce the tools and procedures required to legally seize and forensically evaluate a suspect machine. Updating and expanding information on concealment techniques, new technologies, hardware, software, and relevant new legislation, this second edition delineates the scope and goals of cyber forensics to reveal and track legal and illegal activity. Beginning with an introduction and definition of cyber forensics, chapters explain the rules of evidence and chain of custody in maintaining legally valid electronic evidence. They describe how to begin an investigation and employ investigative methodology, as well as establish standard operating procedures for the field and cyber forensic laboratory. The authors provide an in depth examination of the manipulation of technology to conceal illegal activities and the use of cyber forensics to uncover them. They discuss topics and issues such as conducting a cyber forensic investigation within both the local and federal legal framework, and evaluating the current data security and integrity exposure of multifunctional devices. Cyber Forensics includes details and tips on taking control of a suspect computer or PDA and its "operating" environment, mitigating potential exposures and risks to chain of custody, and establishing and following a flowchart for the seizure of electronic evidence. An extensive list of appendices include websites, organizations, pertinent legislation, further readings, best practice recommendations, more information on hardware and software, and a recap of the federal rules of civil procedure. CYBER WAR AND IT'S PROTECTION Ranjan Rajan this book, I will give you dozens of ways to protect your Internet network and devices. This book covers topics such as email, passwords, and software security. It may seem too general, but all of these tips are excellent at defending against corona-themed scams/exploits/attacks. In fact, whether for COVID-19 or another emergency, these suggestions reinforce good security practices and habits. You can choose to implement any number of these tips or at least understand the reasoning behind them. These suggestions focus on practicality and things you can do right now. This is a general guide meant to capture the essence of what you need. Pursue further research if you must. The responsibility lies on your shoulders. And finally, stay safe out there. Be well and take care. Eleventh Hour Linux+ Exam XK0-003 Study Guide Syngress Eleventh Hour Linux+: Exam XK0-003 Study Guide offers a practical guide for those preparing for the Linux+ certification exam. The book begins with a review of important concepts that are needed for successful operating system installation. These include computer hardware, environment settings, partitions, and network settings. The book presents the strategies for creating filesystems; different types of filesystems; the tools used to create filesystems; and the tools used to administer filesystems. It explains the Linux boot process; how to configure system and user profiles as well as the common environment variables; and how to use BASH command line interpreter. The remaining chapters discuss how to install, configure, support, and remove applications; the configuration of Linux as a workstation and as a server; securing the Linux system; and common tools for managing a system. Each chapter includes information on exam objectives, exam warnings, and the top five toughest questions along with their answers. Fast Facts quickly review fundamentals Exam Warnings highlight particularly tough sections of the exam Crunch Time sidebars point out key concepts to remember Did You Know? sidebars cover sometimes forgotten details Top Five Toughest Questions and answers help you to prepare Hacking Exposed Cisco Networks Cisco Security Secrets & Solutions McGraw Hill Professional Here is the first book to focus solely on Cisco network hacking, security auditing, and defense issues. Using the proven Hacking Exposed methodology, this book shows you how to locate and patch system vulner-

abilities by looking at your Cisco network through the eyes of a hacker. The book covers device-specific and network-centered attacks and defenses and offers real-world case studies. CISSP Study Guide Newnes Annotation This study guide is aligned to cover all of the material included in the CISSP certification exam. Each of the 10 domains has its own chapter that includes specially designed pedagogy to aid the test-taker in passing the exam. Hands-On Network Forensics Investigate network attacks and find evidence using common network forensic tools Packt Publishing Ltd Gain basic skills in network forensics and learn how to apply them effectively Key Features Investigate network threats with ease Practice forensics tasks such as intrusion detection, network analysis, and scanning Learn forensics investigation at the network level Book 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 learn Discover and interpret encrypted traffic Learn about various protocols Understand the malware language over wire Gain insights into the most widely used malware Correlate data collected from attacks Develop tools and custom scripts for network forensics automation Who 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. Seven Deadliest Microsoft Attacks Elsevier Seven Deadliest Microsoft Attacks explores some of the deadliest attacks made against Microsoft software and networks and how these attacks can impact the confidentiality, integrity, and availability of the most closely guarded company secrets. If you need to keep up with the latest hacks, attacks, and exploits effecting Microsoft products, this book is for you. It pinpoints the most dangerous hacks and exploits specific to Microsoft applications, laying out the anatomy of these attacks including how to make your system more secure. You will discover the best ways to defend against these vicious hacks with step-by-step instruction and learn techniques to make your computer and network impenetrable. The book consists of seven chapters that cover the seven deadliest attacks against Microsoft software and networks: attacks against Windows passwords; escalation attacks; stored procedure attacks; mail service attacks; client-side ActiveX and macro attacks; Web service attacks; and multi-tier attacks. Each chapter provides an overview of a single Microsoft software product, how it is used, and some of the core functionality behind the software. Furthermore, each chapter explores the anatomy of attacks against the software, the dangers of an attack, and possible defenses to help prevent the attacks described in the scenarios. This book will be a valuable resource for those responsible for oversight of network security for either small or large organizations. It will also benefit those interested in learning the details behind attacks against Microsoft infrastructure, products, and services; and how to defend against them. Network administrators and integrators will find value in learning how attacks can be executed, and transfer knowledge gained from this book into improving existing deployment and integration practices. Windows Operating System-Password Attacks Active Directory-Escalation of Privilege SQL Server-Stored Procedure Attacks Exchange Server-Mail Service Attacks Office-Macros and ActiveX Internet Information Services(IIS)-Web Service Attacks SharePoint-Multi-tier Attacks CompTIA Linux+ Certification Study Guide (2009 Exam) Exam XK0-003 Syngress CompTIA Linux+ Certification Study Guide offers a practical guide for those interested in pursuing a Linux+ certification. It covers the required content as specified in CompTIA's exam objectives and has been shaped according to the respective exam experiences of the authors. Careful attention has been paid to ensure that each exam objective has been covered and that each term in the list at the end of the objectives has been included in a glossary at the end of the book. The book has been designed in such a way that readers will start with installing Linux and end up with a useable and secure Linux workstation and server that is supported and managed. Key topics discussed include booting Linux; how to use the BASH command-line interpreter (CLI) or BASH shell; and how to install applications to transform the Linux system into a productive tool. The remaining chapters

cover the configuration of Linux as a workstation and as a server; security objectives; and the care and feeding of a Linux system. Each chapter ends with 15 exam questions along with a corresponding answer key. Covers everything from test taking techniques to advanced topics - keeping the beginner and intermediate IT professional in mind Layout of the guide parallels the 2009 Linux+ objectives for ease of study More than just a book, this kit includes a self test, tiered questions, and two practice exams Handbook of Research on Network Forensics and Analysis Techniques IGI Global With the rapid advancement in technology, myriad new threats have emerged in online environments. The broad spectrum of these digital risks requires new and innovative methods for protection against cybercrimes. The Handbook of Research on Network Forensics and Analysis Techniques is a current research publication that examines the advancements and growth of forensic research from a relatively obscure tradecraft to an important part of many investigations. Featuring coverage on a broad range of topics including cryptocurrency, hand-based biometrics, and cyberterrorism, this publication is geared toward professionals, computer forensics practitioners, engineers, researchers, and academics seeking relevant research on the development of forensic tools. Computer Forensics: Investigating Network Intrusions and Cybercrime (CHFI) Cengage Learning 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. 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. Fundamentals of Network Forensics A Research Perspective Springer This timely text/reference presents a detailed introduction to the essential aspects of computer network forensics. The book considers not only how to uncover information hidden in email messages, web pages and web servers, but also what this reveals about the functioning of the Internet and its core protocols. This, in turn, enables the identification of shortcomings and highlights where improvements can be made for a more secure network. Topics and features: provides learning objectives in every chapter, and review questions throughout the book to test understanding; introduces the basic concepts of network process models, network forensics frameworks and network forensics tools; discusses various techniques for the acquisition of packets in a network forensics system, network forensics analysis, and attribution in network forensics; examines a range of advanced topics, including botnet, smartphone, and cloud forensics; reviews a number of freely available tools for performing forensic activities. CCNA Cyber Ops SECOPS 210-255 Official Cert Guide Cisco Press This is the eBook version of the print title. Note that the eBook does not provide access to the practice test software that accompanies the print book. Learn, prepare, and practice for CCNA Cyber Ops SECOPS #210-255 exam success with this Official Cert Guide from Pearson IT Certification, a leader in IT Certification learning. Master CCNA Cyber Ops SECOPS #210-255 exam topics Assess your knowledge with chapter-ending quizzes Review key concepts with exam preparation tasks CCNA Cyber Ops SECOPS 210-255 Official Cert Guide is a best-of-breed exam study guide. Best-selling authors and internationally respected cybersecurity experts Omar Santos and Joseph Muniz share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam topics. The book presents you with an organized test preparation routine through the use of proven series elements and techniques. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. Review questions help you assess your knowledge, and a final preparation chapter guides you through tools and resources to help you craft your final study plan. Well-regarded for its level of detail, assessment features, and challenging review questions and exercises, this study guide helps you master the concepts and techniques that will allow you to succeed on the exam the first time. The study guide helps you master all the topics on the SECOPS #210-255 exam, including: Threat analysis Forensics Intrusion analy-

sis NetFlow for cybersecurity Incident response and the incident handling process Incident response teams Compliance frameworks Network and host profiling Data and event analysis Intrusion event categories Network Forensics John Wiley & Sons Intensively hands-on training for real-world network forensics Network Forensics provides a uniquely practical guide for IT and law enforcement professionals seeking a deeper understanding of cybersecurity. This book is hands-on all the way—by dissecting packets, you gain fundamental knowledge that only comes from experience. Real packet captures and log files demonstrate network traffic investigation, and the learn-by-doing approach relates the essential skills that traditional forensics investigators may not have. From network packet analysis to host artifacts to log analysis and beyond, this book emphasizes the critical techniques that bring evidence to light. Network forensics is a growing field, and is becoming increasingly central to law enforcement as cybercrime becomes more and more sophisticated. This book provides an unprecedented level of hands-on training to give investigators the skills they need. Investigate packet captures to examine network communications Locate host-based artifacts and analyze network logs Understand intrusion detection systems—and let them do the legwork Have the right architecture and systems in place ahead of an incident Network data is always changing, and is never saved in one place; an investigator must understand how to examine data over time, which involves specialized skills that go above and beyond memory, mobile, or data forensics. Whether you're preparing for a security certification or just seeking deeper training for a law enforcement or IT role, you can only learn so much from concept; to thoroughly understand something, you need to do it. Network Forensics provides intensive hands-on practice with direct translation to real-world application. Next Generation SSH2 Implementation Securing Data in Motion Syngress New security risks, continuously evolving regulation and increasing security standards have created new and growing needs for secure internal information transfers, which SSH provides. This book addresses these new trends in depth, offering the most up-to-date information on the integration of SSH into a security environment. It covers the newest features and applications of SSH-2 (which received Proposed Standard status from the IETF in 2006). SSH2 is more secure than previous versions and has many expanded uses on a wider variety of computing platforms. Another particular note driving new SSH2 adoption are the requirements of recent legislation (PCI/HIPAA/SOX/FISMA). SSH 2 has become an even more valuable tool, as it provides communications security compliance with the latest standards. This book offers the most up-to-date information on SSH2 in a practical, hands-on, tutorial-style reference that goes well beyond UNIX implementation. It concentrates on the latest version of SSH 2 with all new information. * Discover why SSH2 offers more robust security than SSH1 and how to incorporate it into your network administration software toolbox. Incident Response & Computer Forensics, 2nd Ed. McGraw Hill Professional Written by FBI insiders, this updated best-seller offers a look at the legal, procedural, and technical steps of incident response and computer forensics. Including new chapters on forensic analysis and remediation, and real-world case studies, this revealing book shows how to counteract and conquer today's hack attacks. Advances in Digital Forensics VII 7th IFIP WG 11.9 International Conference on Digital Forensics, Orlando, FL, USA, January 31 - February 2, 2011, Revised Selected Papers Springer Science & Business Media Digital forensics deals with the acquisition, preservation, examination, analysis and presentation of electronic evidence. Networked computing, wireless communications and portable electronic devices have expanded the role of digital forensics beyond traditional computer crime investigations. Practically every crime now involves some aspect of digital evidence; digital forensics provides the techniques and tools to articulate this evidence. Digital forensics also has myriad intelligence applications. Furthermore, it has a vital role in information assurance -- investigations of security breaches yield valuable information that can be used to design more secure systems. Advances in Digital Forensics VII 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, Fraud and Malware Investigations, Network Forensics, and Advanced Forensic Techniques. This book is the 7th 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 21 edited papers from the 7th Annual IFIP WG 11.9 International Conference on Digital Forensics, held at the National Center for Forensic Science, Orlando, Florida, USA in the spring of 2011. Advances in Digital Forensics VII is an important resource for researchers, faculty members and graduate students, as well as for practitioners and individuals engaged in research

and development efforts for the law enforcement and intelligence communities. Gilbert Peterson is an Associate Professor of Computer Engineering at the Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, USA. Sujeet Shenoi is the F.P. Walter Professor of Computer Science at the University of Tulsa, Tulsa, Oklahoma, USA. CCNA Security 640-554 Official Cert Guide-Pearson Education Trust the best selling Official Cert Guide series from Cisco Press to help you learn, prepare, and practice for exam success. They are built with the objective of providing assessment, review, and practice to help ensure you are fully prepared for your certification exam. CCNA Security 640-554 Official Cert Guide presents you with an organized test preparation routine through the use of proven series elements and techniques. "Do I Know This Already?" quizzes open each chapter and enable you to decide how much time you need to spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. Master Cisco CCNA Security 640-554 exam topics Assess your knowledge with chapter-opening quizzes Review key concepts with exam preparation tasks Practice with realistic exam questions on the CD-ROM CCNA Security 640-554 Official Cert Guide, focuses specifically on the objectives for the Cisco CCNA Security IINS exam. Expert networking professionals Keith Barker and Scott Morris share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam topics. The companion CD-ROM contains a powerful Pearson IT Certification Practice Test engine that enables you to focus on individual topic areas or take complete, timed exams. The assessment engine also tracks your performance and provides feedback on a module-by-module basis, laying out a complete assessment of your knowledge to help you focus your study where it is needed most. The CD also contains 90 minutes of video training on CCP, NAT, object groups, ACLs, port security on a Layer 2 switch, CP3L, and zone-based firewalls. Well-regarded for its level of detail, assessment features, comprehensive design scenarios, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that will enable you to succeed on the exam the first time. The official study guide helps you master all the topics on the CCNA Security IINS exam, including: Network security concepts Security policies and strategies Network foundation protection (NFP) Cisco Configuration Professional (CCP) Management plane security AAA security Layer 2 security threats IPv6 security Threat mitigation and containment Access Control Lists (ACLs) Network Address Translation (NAT) Cisco IOS zone-based firewalls and ASA firewalls Intrusion prevention and detection systems Public Key Infrastructure (PKI) and cryptography Site-to-site IPsec VPNs and SSL VPNs CCNA Security 640-554 Official Cert Guide is part of a recommended learning path from Cisco that includes simulation and hands-on training from authorized Cisco Learning Partners and self-study products from Cisco Press. To find out more about instructor-led training, e-learning, and hands-on instruction offered by authorized Cisco Learning Partners worldwide, please visit www.cisco.com/go/authorizedtraining. The print edition of the CCNA Security 640-554 Official Cert Guide contains 90 minutes of video instruction, two free, complete practice exams as well as an exclusive offer for 70% off Premium Edition eBook and Practice Test. Pearson IT Certification Practice Test minimum system requirements: Windows XP (SP3), Windows Vista (SP2), or Windows 7; Microsoft .NET Framework 4.0 Client; Pentium class 1GHz processor (or equivalent); 512 MB RAM; 650 MB disc space plus 50 MB for each downloaded practice exam Also available from Cisco Press for Cisco CCNA Security study is the CCNA Security 640-554 Official Cert Guide Premium Edition eBook and Practice Test. This digital-only certification preparation product combines an eBook with enhanced Pearson IT Certification Practice Test. This integrated learning package: Allows you to focus on individual topic areas or take complete, timed exams Includes direct links from each question to detailed tutorials to help you understand the concepts behind the questions Provides unique sets of exam-realistic practice questions Tracks your performance and provides feedback on a module-by-module basis, laying out a complete assessment of your knowledge to help you focus your study where it is needed most Cisco Cyberops Associate Cbrops 200-201 Official Cert Guide Cisco Press Modern organizations rely on Security Operations Center (SOC) teams to vigilantly watch security systems, rapidly detect breaches, and respond quickly and effectively. To succeed, SOCs desperately need more qualified cybersecurity professionals. Cisco's new Cisco Certified CyberOps Associate certification prepares candidates to begin a career working as associate-level cybersecurity analysts within SOCs. It demonstrates their knowledge about creating, operating, and working within computer security incident response teams (CSIRTs) and product security incident response teams (PSIRTs); the incident response lifecycle, and cyber forensics. To earn this valuable certification, candidates must pass the new Understanding

Cisco Cybersecurity Operations Fundamentals (200-201 CBROPS) consolidated exam. Cisco CyberOps Associate CBROPS 200-201 Official Cert Guide is Cisco's official, comprehensive self-study resource for this exam. Designed for all exam candidates, it covers every exam objective concisely and logically, with extensive teaching features that promote retention and understanding. You'll find: Pre-chapter quizzes to assess knowledge upfront and focus your study more efficiently Foundation topics sections that explain concepts and configurations, and link theory to practice Key topics sections calling attention to every figure, table, and list you must know Exam Preparation sections with additional chapter review features Final preparation chapter providing tools and a complete final study plan A customizable practice test library This guide offers comprehensive, up-to-date coverage of all CBROPS #200-201 topics related to: Security concepts Security monitoring Host-based analysis Network intrusion analysis Security policies and procedures Network Forensics-Tracking Hackers through Cyberspace Prentice Hall "This is a must-have work for anybody in information security, digital forensics, or involved with incident handling. As we move away from traditional disk-based analysis into the interconnectivity of the cloud, Sherri and Jonathan have created a framework and roadmap that will act as a seminal work in this developing field." - Dr. Craig S. Wright (GSE), Asia Pacific Director at Global Institute for Cyber Security + Research. "It's like a symphony meeting an encyclopedia meeting a spy novel." -Michael Ford, Corero Network Security On the Internet, every action leaves a mark—in routers, firewalls, web proxies, and within network traffic itself. When a hacker breaks into a bank, or an insider smuggles secrets to a competitor, evidence of the crime is always left behind. Learn to recognize hackers' tracks and uncover network-based evidence in Network Forensics: Tracking Hackers through Cyberspace. Carve suspicious email attachments from packet captures. Use flow records to track an intruder as he pivots through the network. Analyze a real-world wireless encryption-cracking attack (and then crack the key yourself). Reconstruct a suspect's web surfing history—and cached web pages, too—from a web proxy. Uncover DNS-tunneled traffic. Dissect the Operation Aurora exploit, caught on the wire. Throughout the text, step-by-step case studies guide you through the analysis of network-based evidence. You can download the evidence files from the authors' web site (imgsecurity.com), and follow along to gain hands-on experience. Hackers leave footprints all across the Internet. Can you find their tracks and solve the case? Pick up Network Forensics and find out. Windows Registry Forensics Advanced Digital Forensic Analysis of the Windows Registry Elsevier Windows Registry Forensics provides the background of the Windows Registry to help develop an understanding of the binary structure of Registry hive files. Approaches to live response and analysis are included, and tools and techniques for postmortem analysis are discussed at length. Tools and techniques are presented that take the student and analyst beyond the current use of viewers and into real analysis of data contained in the Registry, demonstrating the forensic value of the Registry. Named a 2011 Best Digital Forensics Book by InfoSec Reviews, this book is packed with real-world examples using freely available open source tools. It also includes case studies and a CD containing code and author-created tools discussed in the book. This book will appeal to computer forensic and incident response professionals, including federal government and commercial/private sector contractors, consultants, etc. Named a 2011 Best Digital Forensics Book by InfoSec Reviews Packed with real-world examples using freely available open source tools Deep explanation and understanding of the Windows Registry – the most difficult part of Windows to analyze forensically Includes a CD containing code and author-created tools discussed in the book Handbook of SCADA/Control Systems Security CRC Press The availability and security of many services we rely upon including water treatment, electricity, healthcare, transportation, and financial transactions are routinely put at risk by cyber threats. The Handbook of SCADA/Control Systems Security is a fundamental outline of security concepts, methodologies, and relevant information pertaining to the Malware Forensics Investigating and Analyzing Malicious Code Syngress Malware Forensics: Investigating and Analyzing Malicious Code covers the complete process of responding to a malicious code incident. Written by authors who have investigated and prosecuted federal malware cases, this book deals with the emerging and evolving field of live forensics, where investigators examine a computer system to collect and preserve critical live data that may be lost if the system is shut down. Unlike other forensic texts that discuss live forensics on a particular operating system, or in a generic context, this book emphasizes a live forensics and evidence collection methodology on both Windows and Linux operating systems in the context of identifying and capturing malicious code and evidence of its effect on the compromised system. It is the first book detailing how to perform live forensic techniques on malicious code. The book gives deep coverage on the tools and techniques of conducting runtime behavioral malware analysis (such as file, registry, network and port monitor-

ing) and static code analysis (such as file identification and profiling, strings discovery, armoring/packing detection, disassembling, debugging), and more. It explores over 150 different tools for malware incident response and analysis, including forensic tools for preserving and analyzing computer memory. Readers from all educational and technical backgrounds will benefit from the clear and concise explanations of the applicable legal case law and statutes covered in every chapter. In addition to the technical topics discussed, this book also offers critical legal considerations addressing the legal ramifications and requirements governing the subject matter. This book is intended for system administrators, information security professionals, network personnel, forensic examiners, attorneys, and law enforcement working with the inner-workings of computer memory and malicious code. * Winner of Best Book Bejtlich read in 2008! * <http://taosecurity.blogspot.com/2008/12/best-book-bejtlich-read-in-2008.html> * Authors have investigated and prosecuted federal malware cases, which allows them to provide unparalleled insight to the reader. * First book to detail how to perform "live forensic" techniques on malicious code. * In addition to the technical topics discussed, this book also offers critical legal considerations addressing the legal ramifications and requirements governing the subject matter Practical Information Security A Competency-Based Education Course Springer This textbook presents a practical introduction to information security using the Competency Based Education (CBE) method of teaching. The content and ancillary assessment methods explicitly measure student progress in the three core categories: Knowledge, Skills, and Experience, giving students a balance between background knowledge, context, and skills they can put to work. Students will learn both the foundations and applications of information systems security; safeguarding from malicious attacks, threats, and vulnerabilities; auditing, testing, and monitoring; risk, response, and recovery; networks and telecommunications security; source code security; information security standards; and compliance laws. The book can be used in introductory courses in security (information, cyber, network or computer security), including classes that don't specifically use the CBE method, as instructors can adjust methods and ancillaries based on their own preferences. The book content is also aligned with the Cybersecurity Competency Model, proposed by department of homeland security. The author is an active member of The National Initiative for Cybersecurity Education (NICE), which is led by the National Institute of Standards and Technology (NIST). NICE is a partnership between government, academia, and the private sector focused on cybersecurity education, training, and workforce development. End-to-End Network Security Defense-in-Depth Pearson Education End-to-End Network Security Defense-in-Depth Best practices for assessing and improving network defenses and responding to security incidents Omar Santos Information security practices have evolved from Internet perimeter protection to an in-depth defense model in which multiple countermeasures are layered throughout the infrastructure to address vulnerabilities and attacks. This is necessary due to increased attack frequency, diverse attack sophistication, and the rapid nature of attack velocity—all blurring the boundaries between the network and perimeter. End-to-End Network Security is designed to counter the new generation of complex threats. Adopting this robust security strategy defends against highly sophisticated attacks that can occur at multiple locations in your network. The ultimate goal is to deploy a set of security capabilities that together create an intelligent, self-defending network that identifies attacks as they occur, generates alerts as appropriate, and then automatically responds. End-to-End Network Security provides you with a comprehensive look at the mechanisms to counter threats to each part of your network. The book starts with a review of network security technologies then covers the six-step methodology for incident response and best practices from proactive security frameworks. Later chapters cover wireless network security, IP telephony security, data center security, and IPv6 security. Finally, several case studies representing small, medium, and large enterprises provide detailed example configurations and implementation strategies of best practices learned in earlier chapters. Adopting the techniques and strategies outlined in this book enables you to prevent day-zero attacks, improve your overall security posture, build strong policies, and deploy intelligent, self-defending networks. "Within these pages, you will find many practical tools, both process related and technology related, that you can draw on to improve your risk mitigation strategies." —Bruce Murphy, Vice President, World Wide Security Practices, Cisco Omar Santos is a senior network security engineer at Cisco®. Omar has designed, implemented, and supported numerous secure networks for Fortune 500 companies and the U.S. government. Prior to his current role, he was a technical leader within the World Wide Security Practice and the Cisco Technical Assistance Center (TAC), where he taught, led, and mentored many engineers within both organizations. Guard your network with firewalls, VPNs, and intrusion prevention systems Control network access with AAA Enforce security

policies with Cisco Network Admission Control (NAC) Learn how to perform risk and threat analysis Harden your network infrastructure, security policies, and procedures against security threats Identify and classify security threats Trace back attacks to their source Learn how to best react to security incidents Maintain visibility and control over your network with the SAVE framework Apply Defense-in-Depth principles to wireless networks, IP telephony networks, data centers, and IPv6 networks This security book is part of the Cisco Press® Networking Technology Series. Security titles from Cisco Press help networking professionals secure critical data and resources, prevent and mitigate network attacks, and build end-to-end self-defending networks. Category: Networking: Security Covers: Network security and incident response Computer Forensics For Dummies John Wiley & Sons Uncover a digital trail of e-evidence by using the helpful, easy-to-understand information in Computer Forensics For Dummies! Professional and armchair investigators alike can learn the basics of computer forensics, from digging out electronic evidence to solving the case. You won't need a computer science degree to master e-discovery. Find and filter data in mobile devices, e-mail, and other Web-based technologies. You'll learn all about e-mail and Web-based forensics, mobile forensics, passwords and encryption, and other e-evidence found through VoIP, voicemail, legacy mainframes, and databases. You'll discover how to use the latest forensic software, tools, and equipment to find the answers that you're looking for in record time. When you understand how data is stored, encrypted, and recovered, you'll be able to protect your personal privacy as well. By the time you finish reading this book, you'll know how to: Prepare for and conduct computer forensics investigations Find and filter data Protect personal privacy Transfer evidence without contaminating it Anticipate legal loopholes and opponents' methods Handle passwords and encrypted data Work with the courts and win the case Plus, Computer Forensics for Dummies includes lists of things that everyone interested in computer forensics should know, do, and build. Discover how to get qualified for a career in computer forensics, what to do to be a great investigator and expert witness, and how to build a forensics lab or toolkit. Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file. Security Operations Center Building, Operating, and Maintaining your SOCCisco Press Security Operations Center Building, Operating, and Maintaining Your SOC The complete, practical guide to planning, building, and operating an effective Security Operations Center (SOC) Security Operations Center is the complete guide to building, operating, and managing Security Operations Centers in any environment. Drawing on experience with hundreds of customers ranging from Fortune 500 enterprises to large military organizations, three leading experts thoroughly review each SOC model, including virtual SOCs. You'll learn how to select the right strategic option for your organization, and then plan and execute the strategy you've chosen. Security Operations Center walks you through every phase required to establish and run an effective SOC, including all significant people, process, and technology capabilities. The authors assess SOC technologies, strategy, infrastructure, governance, planning, implementation, and more. They take a holistic approach considering various commercial and open-source tools found in modern SOCs. This best-practice guide is written for anybody interested in learning how to develop, manage, or improve a SOC. A background in network security, management, and operations will be helpful but is not required. It is also an indispensable resource for anyone preparing for the Cisco SCYBER exam. · Review high-level issues, such as vulnerability and risk management, threat intelligence, digital investigation, and data collection/analysis · Understand the technical components of a modern SOC · Assess the current state of your SOC and identify areas of improvement · Plan SOC strategy, mission, functions, and services · Design and build out SOC infrastructure, from facilities and networks to systems, storage, and physical security · Collect and successfully analyze security data · Establish an effective vulnerability management practice · Organize incident response teams and measure their performance · Define an optimal governance and staffing model · Develop a practical SOC handbook that people can actually use · Prepare SOC to go live, with comprehensive transition plans · React quickly and collaboratively to security incidents · Implement best practice security operations, including continuous enhancement and improvement Learning Network Forensics Packt Publishing Ltd 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. Digital Forensics for Network, Internet, and Cloud Computing A Forensic Evidence Guide for Moving Targets and Data Syngress 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. 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. CCNA Cyber Ops SECFND #210-250 Official Cert Guide CCNA Cyber Ops SECFND 210-250 Official Cert Guide from Cisco Press allows you to succeed on the exam the first time and is the only self-study resource approved by Cisco. Cisco enterprise security experts Omar Santos, Joseph Muniz, and Stefano De Crescenzo share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. This complete study package includes A test-preparation routine proven to help you pass the exam Do I Know This Already? quizzes, which allow you to decide how much time you need to spend on each section Chapter-ending exercises, which help you drill on key concepts you must know thoroughly The powerful Pearson Test Prep practice test software, with two full sample exams containing 120 well-reviewed, exam-realistic questions, customization options, and detailed performance reports A final preparation chapter, which guides you through tools and resources to help you craft your review and test-taking strategies Study plan suggestions and templates to help you organize and optimize your study time Well regarded for its level of detail, study plans, assessment features, challenging review questions and exercises, this official study guide helps you master the concepts and techniques that ensure your exam success. The official study guide helps you master topics on the CCNA Cyber Ops SECFND 210-250 exam, including: Network concepts Security concepts Cryptography Host-based analysis Security monitoring Attack methods Ten Strategies of a World-Class Cybersecurity Operations Center Ten Strategies of a World-Class Cyber Security Operations Center conveys MITRE's accumulated expertise on enterprise-grade computer network defense. It covers ten key qualities of leading Cyber Security Operations Centers (CSOCs), ranging from their structure and organization, to processes that best enable smooth operations, to approaches that extract maximum

value from key CSOC technology investments. This book offers perspective and context for key decision points in structuring a CSOC, such as what capabilities to offer, how to architect large-scale data collection and analysis, and how to prepare the CSOC team for agile, threat-based response. If you manage, work in, or are standing up a CSOC, this book is for you. It is also available on MITRE's website, www.mitre.org.

This textbook presents a practical introduction to information security using the Competency Based Education (CBE) method of teaching. The content and ancillary assessment methods explicitly measure student progress in the three core categories: Knowledge, Skills, and Experience, giving students a balance between background knowledge, context, and skills they can put to work. Students will learn both the foundations and applications of information systems security; safeguarding from malicious attacks, threats, and vulnerabilities; auditing, testing, and monitoring; risk, response, and recovery; networks and telecommunications security; source code security; information security standards; and compliance laws. The book can be used in introductory courses in security (information, cyber, network or computer security), including classes that don't specifically use the CBE method, as instructors can adjust methods and ancillaries based on their own preferences. The book content is also aligned with the Cybersecurity Competency Model, proposed by department of homeland security. The author is an active member of The National Initiative for Cybersecurity Education (NICE), which is led by the National Institute of Standards and Technology (NIST). NICE is a partnership between government, academia, and the private sector focused on cybersecurity education, training, and workforce development.

Digital forensics deals with the acquisition, preservation, examination, analysis and presentation of electronic evidence. Networked computing, wireless communications and portable electronic devices have expanded the role of digital forensics beyond traditional computer crime investigations. Practically every crime now involves some aspect of digital evidence; digital forensics provides the techniques and tools to articulate this evidence. Digital forensics also has myriad intelligence applications. Furthermore, it has a vital role in information assurance -- investigations of security breaches yield valuable information that can be used to design more secure systems. Advances in Digital Forensics VII 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, Fraud and Malware Investigations, Network Forensics, and Advanced Forensic Techniques. This book is the 7th 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 21 edited papers from the 7th Annual IFIP WG 11.9 International Conference on Digital Forensics, held at the National Center for Forensic Science, Orlando, Florida, USA in the spring of 2011. Advances in Digital Forensics VII is an important resource for researchers, faculty members and graduate students, as well as for practitioners and individuals engaged in research and development efforts for the law enforcement and intelligence communities. Gilbert Peterson is an Associate Professor of Computer Engineering at the Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, USA. Sujeet Shenoi is the F.P. Walter Professor of Computer Science at the University of Tulsa, Tulsa, Oklahoma, USA.

End-to-End Network Security Defense-in-Depth Best practices for assessing and improving network defenses and responding to security incidents Omar Santos Information security practices have evolved from Internet perimeter protection to an in-depth defense model in which multiple countermeasures are layered throughout the infrastructure to address vulnerabilities and attacks. This is necessary due to increased attack frequency, diverse attack sophistication, and the rapid nature of attack velocity—all blurring the boundaries between the network and perimeter. End-to-End Network Security is designed to counter the new generation of complex threats. Adopting this robust security strategy defends against highly sophisticated attacks that can occur at multiple locations in your network. The ultimate goal is to deploy a set of security capabilities that together create an intelligent, self-defending network that identifies attacks as they occur, generates alerts as appropriate, and then automatically responds. End-to-End Network Security provides you with a comprehensive look at the mechanisms to counter threats to each part of your network. The book starts with a review of network security technologies then covers the six-step methodology for incident response and best practices from proactive security frameworks. Later chapters cover wireless network security, IP telephony security, data center security, and IPv6 security. Finally, several case studies representing small, medium, and large enterprises provide detailed example configurations

and implementation strategies of best practices learned in earlier chapters. Adopting the techniques and strategies outlined in this book enables you to prevent day-zero attacks, improve your overall security posture, build strong policies, and deploy intelligent, self-defending networks. "Within these pages, you will find many practical tools, both process related and technology related, that you can draw on to improve your risk mitigation strategies." —Bruce Murphy, Vice President, World Wide Security Practices, Cisco Omar Santos is a senior network security engineer at Cisco®. Omar has designed, implemented, and supported numerous secure networks for Fortune 500 companies and the U.S. government. Prior to his current role, he was a technical leader within the World Wide Security Practice and the Cisco Technical Assistance Center (TAC), where he taught, led, and mentored many engineers within both organizations. Guard your network with firewalls, VPNs, and intrusion prevention systems Control network access with AAA Enforce security policies with Cisco Network Admission Control (NAC) Learn how to perform risk and threat analysis Harden your network infrastructure, security policies, and procedures against security threats Identify and classify security threats Trace back attacks to their source Learn how to best react to security incidents Maintain visibility and control over your network with the SAVE framework Apply Defense-in-Depth principles to wireless networks, IP telephony networks, data centers, and IPv6 networks This security book is part of the Cisco Press® Networking Technology Series. Security titles from Cisco Press help networking professionals secure critical data and resources, prevent and mitigate network attacks, and build end-to-end self-defending networks. Category: Networking: Security Covers: Network security and incident response

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

Three exams, two certifications, one complete Cisco training solution for networking professionals! The CCNA exam is an entry-level IT certification from Cisco Systems for professionals installing and maintaining route and switched networks. The current exam material covers networking concepts along with new and updated content on network security fundamentals and the basics of wireless networking. This book can be used as a study guide for either track you choose to receive your CCNA – the single exam, 640-802 or the combined 640-822 and 640-816, and for the CCENT certification which a student will receive upon completion of the 640-822 exam. The author team has arranged the content so that you can easily identify the objectives for each half of the combined ex-

am. * Layout of the guide parallels the CCNA/CCENT exam objectives for ease of study * Details all aspects of the exams including security and wireless networking essentials * Covers everything from introductory to advanced topics—keeping the beginner and intermediate IT professional in mind * Chapter ending questions and answers allow for graduated learning * Two practice exams on the accompanying DVD help eliminate test-day jitters

Cyber Security refers to the protection of Information system, the data on then and the service they provide, from unauthorized access, harm or misuses. This includes harm caused intentionally by the operator of the system, or accidentally, as a result in falling to follow Security procedures.

Windows Registry Forensics provides the background of the Windows Registry to help develop an understanding of the binary structure of Registry hive files. Approaches to live response and analysis are included, and tools and techniques for postmortem analysis are discussed at length. Tools and techniques are presented that take the student and analyst beyond the current use of viewers and into real analysis of data contained in the Registry, demonstrating the forensic value of the Registry. Named a 2011 Best Digital Forensics Book by InfoSec Reviews, this book is packed with real-world examples using freely available open source tools. It also includes case studies and a CD containing code and author-created tools discussed in the book. This book will appeal to computer forensic and incident response professionals, including federal government and commercial/private sector contractors, consultants, etc. Named a 2011 Best Digital Forensics Book by InfoSec Reviews Packed with real-world examples using freely available open source tools Deep explanation and understanding of the Windows Registry – the most difficult part of Windows to analyze forensically Includes a CD containing code and author-created tools discussed in the book

Modern organizations rely on Security Operations Center (SOC) teams to vigilantly watch security systems, rapidly detect breaches, and respond quickly and effectively. To succeed, SOCs desperately need more qualified cybersecurity professionals. Cisco's new Cisco Certified CyberOps Associate certification prepares candidates to begin a career working as associate-level cybersecurity analysts within SOCs. It demonstrates their knowledge about creating, operating, and working within computer security incident response teams (CSIRTs) and product security incident response teams (PSIRTs); the incident response lifecycle, and cyber forensics. To earn this valuable certification, candidates must pass the new Understanding Cisco Cybersecurity Operations Fundamentals (200-201 CBROPS) consolidated exam. Cisco CyberOps Associate CBROPS 200-201 Official Cert Guide is Cisco's official, comprehensive self-study resource for this exam. Designed for all exam candidates, it covers every exam objective concisely and logically, with extensive teaching features that promote retention and understanding. You'll find: Pre-chapter quizzes to assess knowledge upfront and focus your study more efficiently Foundation topics sections that explain concepts and configurations, and link theory to practice Key topics sections calling attention to every figure, table, and list you must know Exam Preparation sections with additional chapter review features Final preparation chapter providing tools and a complete final study plan A customizable practice test library This guide offers comprehensive, up-to-date coverage of all CBROPS #200-201 topics related to: Security concepts Security monitoring Host-based analysis Network intrusion analysis Security policies and procedures

Here is the first book to focus solely on Cisco network hacking, security auditing, and defense issues. Using the proven Hacking Exposed methodology, this book shows you how to locate and patch system vulnerabilities by looking at your Cisco network through the eyes of a hacker. The book covers device-specific and network-centered attacks and defenses and offers real-world case studies.

Ten Strategies of a World-Class Cyber Security Operations Center conveys MITRE's accumulated expertise on enterprise-grade computer network defense. It covers ten key qualities of leading Cyber Security Operations Centers (CSOCs), ranging from their structure and organization, to processes that best enable smooth operations, to approaches that extract maximum value from key CSOC technology investments. This book offers perspective and context for key decision points in structuring a CSOC, such as what capabilities to offer, how to architect large-scale data collection and analysis, and how to prepare the CSOC team for agile, threat-based response. If you manage, work in, or are standing up a CSOC, this book is for you. It is also available on MITRE's website, www.mitre.org.

Keeping up with the latest developments in cyber security requires ongoing commitment, but without a firm foundation in the principles of computer security and digital forensics, those tasked with safeguarding private information can get lost in a turbulent and shifting sea. Providing such a foundation, Introduction to Security and Network Forensics covers the basic principles of intrusion de-

tection systems, encryption, and authentication, as well as the key academic principles related to digital forensics. Starting with an overview of general security concepts, it addresses hashing, digital certificates, enhanced software security, and network security. The text introduces the concepts of risk, threat analysis, and network forensics, and includes online access to an abundance of ancillary materials, including labs, Cisco challenges, test questions, and web-based videos. The author provides readers with access to a complete set of simulators for routers, switches, wireless access points (Cisco Aironet 1200), PIX/ASA firewalls (Version 6.x, 7.x and 8.x), Wireless LAN Controllers (WLC), Wireless ADUs, ASDMs, SDMs, Juniper, and much more, including: More than 3,700 unique Cisco challenges and 48,000 Cisco Configuration Challenge Elements 60,000 test questions, including for Certified Ethical Hacking and CISSP® 350 router labs, 180 switch labs, 160 PIX/ASA labs, and 80 Wireless labs Rounding out coverage with a look into more advanced topics, including data hiding, obfuscation, web infrastructures, and cloud and grid computing, this book provides the fundamental understanding in computer security and digital forensics required to develop and implement effective safeguards against ever-evolving cyber security threats. Along with this, the text includes a range of online lectures and related material, available at: <http://asecuritybook.com>.

"This is a must-have work for anybody in information security, digital forensics, or involved with incident handling. As we move away from traditional disk-based analysis into the interconnectivity of the cloud, Sherri and Jonathan have created a framework and roadmap that will act as a seminal work in this developing field." – Dr. Craig S. Wright (GSE), Asia Pacific Director at Global Institute for Cyber Security + Research. "It's like a symphony meeting an encyclopedia meeting a spy novel." –Michael Ford, Corero Network Security On the Internet, every action leaves a mark—in routers, firewalls, web proxies, and within network traffic itself. When a hacker breaks into a bank, or an insider smuggles secrets to a competitor, evidence of the crime is always left behind. Learn to recognize hackers' tracks and uncover network-based evidence in *Network Forensics: Tracking Hackers through Cyberspace*. Carve suspicious email attachments from packet captures. Use flow records to track an intruder as he pivots through the network. Analyze a real-world wireless encryption-cracking attack (and then crack the key yourself). Reconstruct a suspect's web surfing history—and cached web pages, too—from a web proxy. Uncover DNS-tunneled traffic. Dissect the Operation Aurora exploit, caught on the wire. Throughout the text, step-by-step case studies guide you through the analysis of network-based evidence. You can download the evidence files from the authors' web site (imgsecurity.com), and follow along to gain hands-on experience. Hackers leave footprints all across the Internet. Can you find their tracks and solve the case? Pick up *Network Forensics* and find out.

Cisco Router and Switch Forensics Investigating and Analyzing Malicious Network Activity Syngress Gain basic skills in network forensics and learn how to apply them effectively Key Features Investigate network threats with ease Practice forensics tasks such as intrusion detection, network analysis, and scanning Learn forensics investigation at the network level Book 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 learn Discover and interpret encrypted traffic Learn about various protocols Understand the malware language over wire Gain insights into the most widely used malware Correlate data collected from attacks Develop tools and custom scripts for network forensics automation Who 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. *CCNA Cyber Ops SECND 210-250 Official Cert Guide* from Cisco Press allows you to succeed on the exam the first time and is the only self-study resource approved by Cisco. Cisco enterprise security experts Omar Santos, Joseph Muniz, and Stefano De Crescenzo share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowl-

edge and hands-on skills. This complete study package includes A test-preparation routine proven to help you pass the exam Do I Know This Already? quizzes, which allow you to decide how much time you need to spend on each section Chapter-ending exercises, which help you drill on key concepts you must know thoroughly The powerful Pearson Test Prep practice test software, with two full sample exams containing 120 well-reviewed, exam-realistic questions, customization options, and detailed performance reports A final preparation chapter, which guides you through tools and resources to help you craft your review and test-taking strategies Study plan suggestions and templates to help you organize and optimize your study time Well regarded for its level of detail, study plans, assessment features, challenging review questions and exercises, this official study guide helps you master the concepts and techniques that ensure your exam success. The official study guide helps you master topics on the CCNA Cyber Ops SECND 210-250 exam, including: Network concepts Security concepts Cryptography Host-based analysis Security monitoring Attack methods 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.

Written by FBI insiders, this updated best-seller offers a look at the legal, procedural, and technical steps of incident response and computer forensics. Including new chapters on forensic analysis and remediation, and real-world case studies, this revealing book shows how to counteract and conquer today's hack attacks.

The availability and security of many services we rely upon including water treatment, electricity, healthcare, transportation, and financial transactions are routinely put at risk by cyber threats. The *Handbook of SCADA/Control Systems Security* is a fundamental outline of security concepts, methodologies, and relevant information pertaining to the Annotation This study guide is aligned to cover all of the material included in the CISSP certification exam. Each of the 10 domains has its own chapter that includes specially designed pedagogy to aid the test-taker in passing the exam.

This is the eBook version of the print title. Note that the eBook does not provide access to the practice test software that accompanies the print book. Learn, prepare, and practice for CCNA Cyber Ops SECOPS #210-255 exam success with this Official Cert Guide from Pearson IT Certification, a leader in IT Certification learning. Master CCNA Cyber Ops SECOPS #210-255 exam topics Assess your knowledge with chapter-ending quizzes Review key concepts with exam preparation tasks CCNA Cyber Ops SECOPS 210-255 Official Cert Guide is a best-of-breed exam study guide. Best-

selling authors and internationally respected cybersecurity experts Omar Santos and Joseph Muniz share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam topics. The book presents you with an organized test preparation routine through the use of proven series elements and techniques. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. Review questions help you assess your knowledge, and a final preparation chapter guides you through tools and resources to help you craft your final study plan. Well-regarded for its level of detail, assessment features, and challenging review questions and exercises, this study guide helps you master the concepts and techniques that will allow you to succeed on the exam the first time. The study guide helps you master all the topics on the SECOPS #210-255 exam, including: Threat analysis Forensics Intrusion analysis NetFlow for cybersecurity Incident response and the incident handling process Incident response teams Compliance frameworks Network and host profiling Data and event analysis Intrusion event categories Designed as an introduction and overview to the field, *Cyber Forensics: A Field Manual for Collecting, Examining, and Preserving Evidence of Computer Crimes*, Second Edition integrates theory and practice to present the policies, procedures, methodologies, and legal ramifications and implications of a cyber forensic investigation. The authors guide you step-by-step through the basics of investigation and introduce the tools and procedures required to legally seize and forensically evaluate a suspect machine. Updating and expanding information on concealment techniques, new technologies, hardware, software, and relevant new legislation, this second edition delineates the scope and goals of cyber forensics to reveal and track legal and illegal activity. Beginning with an introduction and definition of cyber forensics, chapters explain the rules of evidence and chain of custody in maintaining legally valid electronic evidence. They describe how to begin an investigation and employ investigative methodology, as well as establish standard operating procedures for the field and cyber forensic laboratory. The authors provide an in depth examination of the manipulation of technology to conceal illegal activities and the use of cyber forensics to uncover them. They discuss topics and issues such as conducting a cyber forensic investigation within both the local and federal legal framework, and evaluating the current data security and integrity exposure of multifunctional devices. *Cyber Forensics* includes details and tips on taking control of a suspect computer or PDA and its "operating" environment, mitigating potential exposures and risks to chain of custody, and establishing and following a flowchart for the seizure of electronic evidence. An extensive list of appendices include websites, organizations, pertinent legislation, further readings, best practice recommendations, more information on hardware and software, and a recap of the federal rules of civil procedure.

As you may know, smoking can cause health challenges including heart disease and cancer. It's easy for someone to say that one should quit, but doing it is a different thing altogether. If you've ever tried to quit smoking before, but couldn't, it may be time to give it another try. Many people who have quit smoking had to try a few times to make it happen.

Trust the best selling Official Cert Guide series from Cisco Press to help you learn, prepare, and practice for exam success. They are built with the objective of providing assessment, review, and practice to help ensure you are fully prepared for your certification exam. *CCNA Security 640-554 Official Cert Guide* presents you with an organized test preparation routine through the use of proven series elements and techniques. "Do I Know This Already?" quizzes open each chapter and enable you to decide how much time you need to spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. · Master Cisco CCNA Security 640-554 exam topics · Assess your knowledge with chapter-opening quizzes · Review key concepts with exam preparation tasks · Practice with realistic exam questions on the CD-ROM *CCNA Security 640-554 Official Cert Guide*, focuses specifically on the objectives for the Cisco CCNA Security IINS exam. Expert networking professionals Keith Barker and Scott Morris share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam topics. The companion CD-ROM contains a powerful Pearson IT Certification Practice Test engine that enables you to focus on individual topic areas or take complete, timed exams. The assessment engine also tracks your performance and provides feedback on a module-by-module basis, laying out a complete assessment of your knowledge to help you focus your study where it is needed most. The CD also contains 90 minutes of video training on CCP, NAT, object groups, ACLs, port security on a Lay-

er 2 switch, CP3L, and zone-based firewalls. Well-regarded for its level of detail, assessment features, comprehensive design scenarios, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that will enable you to succeed on the exam the first time. The official study guide helps you master all the topics on the CCNA Security IINS exam, including: Network security concepts Security policies and strategies Network foundation protection (NFP) Cisco Configuration Professional (CCP) Management plane security AAA security Layer 2 security threats IPv6 security Threat mitigation and containment Access Control Lists (ACLs) Network Address Translation (NAT) Cisco IOS zone-based firewalls and ASA firewalls Intrusion prevention and detection systems Public Key Infrastructure (PKI) and cryptography Site-to-site IPsec VPNs and SSL VPNs CCNA Security 640-554 Official Cert Guide is part of a recommended learning path from Cisco that includes simulation and hands-on training from authorized Cisco Learning Partners and self-study products from Cisco Press. To find out more about instructor-led training, e-learning, and hands-on instruction offered by authorized Cisco Learning Partners worldwide, please visit www.cisco.com/go/authorizedtraining. The print edition of the CCNA Security 640-554 Official Cert Guide contains 90 minutes of video instruction, two free, complete practice exams as well as an exclusive offer for 70% off Premium Edition eBook and Practice Test. Pearson IT Certification Practice Test minimum system requirements: Windows XP (SP3), Windows Vista (SP2), or Windows 7; Microsoft .NET Framework 4.0 Client; Pentium class 1GHz processor (or equivalent); 512 MB RAM; 650 MB disc space plus 50 MB for each downloaded practice exam Also available from Cisco Press for Cisco CCNA Security study is the CCNA Security 640-554 Official Cert Guide Premium Edition eBook and Practice Test. This digital-only certification preparation product combines an eBook with enhanced Pearson IT Certification Practice Test. This integrated learning package:

- Allows you to focus on individual topic areas or take complete, timed exams
- Includes direct links from each question to detailed tutorials to help you understand the concepts behind the questions
- Provides unique sets of exam-realistic practice questions
- Tracks your performance and provides feedback on a module-by-module basis, laying out a complete assessment of your knowledge to help you focus your study where it is needed most

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. CompTIA Linux+ Certification Study Guide offers a practical guide for those interested in pursuing a Linux+ certification. It covers the required content as specified in CompTIAs exam objectives and has been shaped according to the respective exam experiences of the authors. Careful attention has been paid to ensure that each exam objective has been covered and that each term in the list at the end of the objectives has been included in a glossary at the end of the book. The book has been designed in such a way that readers will start with installing Linux and end up with a useable and secure Linux workstation and server that is supported and managed. Key topics discussed include booting Linux; how to use the BASH command-line interpreter (CLI) or BASH shell; and how to install applications to transform the Linux system into a productive tool. The remaining chapters cover the configuration of Linux as a workstation and as a server; security objectives; and the care and feeding of a Linux system. Each chapter ends with 15 exam questions along with a corresponding answer key. Covers everything from test taking techniques to advanced topics - keeping the beginner and intermediate IT professional in mind Layout of the guide parallels the 2009 Linux+ objectives for ease of study More than just a book, this kit includes a self test, tiered questions, and two practice exams

Malware Forensics: Investigating and Analyzing Malicious Code covers the complete process of responding to a malicious code incident. Written by authors who have investigated and prosecuted federal malware cases, this book deals with the emerging and evolving field of live forensics, where investigators examine a computer system to collect and preserve critical live data that may be lost if the system is shut down. Unlike other forensic texts that discuss live forensics on a particular operating system, or in a generic context, this book emphasizes a live forensics and evidence collection methodology on both Windows and Linux operating systems in the context of identifying and capturing malicious code and evidence of its effect on the compromised system. It is the first book detailing how to perform live forensic techniques on malicious code. The book gives deep coverage on the tools and techniques of conducting runtime behavioral malware analysis (such as file, registry, network and port monitoring) and static code analysis (such as file identification and profiling, strings discovery, armoring/packing detection, disassembling, debugging), and more. It explores over 150 different tools for malware incident response and analysis, including forensic

tools for preserving and analyzing computer memory. Readers from all educational and technical backgrounds will benefit from the clear and concise explanations of the applicable legal case law and statutes covered in every chapter. In addition to the technical topics discussed, this book also offers critical legal considerations addressing the legal ramifications and requirements governing the subject matter. This book is intended for system administrators, information security professionals, network personnel, forensic examiners, attorneys, and law enforcement working with the inner-workings of computer memory and malicious code. * Winner of Best Book Bejtlich read in 2008! * <http://taosecurity.blogspot.com/2008/12/best-book-bejtlich-read-in-2008.html> * Authors have investigated and prosecuted federal malware cases, which allows them to provide unparalleled insight to the reader. * First book to detail how to perform "live forensic" techniques on malicious code. * In addition to the technical topics discussed, this book also offers critical legal considerations addressing the legal ramifications and requirements governing the subject matter

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. 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.

This timely text/reference presents a detailed introduction to the essential aspects of computer network forensics. The book considers not only how to uncover information hidden in email messages, web pages and web servers, but also what this reveals about the functioning of the Internet and its core protocols. This, in turn, enables the identification of shortcomings and highlights where improvements can be made for a more secure network. Topics and features: provides learning objectives in every chapter, and review questions throughout the book to test understanding; introduces the basic concepts of network process models, network forensics frameworks and network forensics tools; discusses various techniques for the acquisition of packets in a network forensics system, network forensics analysis, and attribution in network forensics; examines a range of advanced topics, including botnet, smartphone, and cloud forensics; reviews a number of freely available tools for performing forensic activities.

Security Operations Center Building, Operating, and Maintaining Your SOC The complete, practical guide to planning, building, and operating an effective Security Operations Center (SOC) Security Operations Center is the complete guide to building, operating, and managing Security Operations Centers in any environment. Drawing on experience with hundreds of customers ranging from Fortune 500 enterprises to large military organizations, three leading experts thoroughly review each SOC model, including virtual SOCs. You'll learn how to select the right strategic option for your organization, and then plan and execute the strategy you've chosen. Security Operations Center walks you through every phase required to establish and run an effective SOC, including all significant people, process, and technology capabilities. The authors assess SOC technologies, strategy, infrastructure, governance, planning, implementation, and more. They take a holistic approach considering various commercial and open-source tools found in modern SOCs. This best-practice guide is written for anybody interested in learning how to develop, manage, or improve a SOC. A background in network security, management, and operations will be helpful but is not required. It is also an indispensable resource for anyone preparing for the Cisco SCYBER exam.

- Review high-level issues, such as vulnerability and risk management, threat intelligence, digital investigation, and data collection/analysis
- Understand the technical components of a modern SOC
- Assess the current state of your SOC and identify areas of improvement
- Plan SOC strategy, mission, functions, and services
- Design and build out SOC infrastructure, from facilities and networks to systems, storage, and physical security
- Collect and successfully analyze security data
- Establish an effective vulnerability management practice
- Organize incident response teams and measure their performance
- Define an optimal governance and staffing model
- Develop a practical SOC handbook that

people can actually use · Prepare SOC to go live, with comprehensive transition plans · React quickly and collaboratively to security incidents · Implement best practice security operations, including continuous enhancement and improvement

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. 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.

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.

Eleventh Hour Linux+: Exam XK0-003 Study Guide offers a practical guide for those preparing for the Linux+ certification exam. The book begins with a review of important concepts that are needed for successful operating system installation. These include computer hardware, environment settings, partitions, and network settings. The book presents the strategies for creating filesystems; different types of filesystems; the tools used to create filesystems; and the tools used to administer filesystems. It explains the Linux boot process; how to configure system and user profiles as well as the common environment variables; and how to use BASH command line interpreter. The remaining chapters discuss how to install, configure, support, and remove applications; the configuration of Linux as a workstation and as a server; securing the Linux system; and common tools for managing a system. Each chapter includes information on exam objectives, exam warnings, and the top five toughest questions along with their answers. Fast Facts quickly review fundamentals Exam Warnings highlight particularly tough sections of the exam Crunch Time sidebars point out key concepts to remember Did You Know? sidebars cover sometimes forgotten details Top Five Toughest Questions and answers help you to prepare

Intensively hands-on training for real-world network forensics Network Forensics provides a uniquely practical guide for IT and law enforcement professionals seeking a deeper understanding of cybersecurity. This book is hands-on all the way—by dissecting packets, you gain fundamental knowledge that only comes from experience. Real packet captures and log files demonstrate network traffic investigation, and the learn-by-doing approach relates the essential skills that traditional forensics investigators may not have. From network packet analysis to host artifacts to log analysis and beyond, this book emphasizes the critical techniques that bring evidence to light. Network forensics is a growing field, and is becoming increasingly central to law enforcement as cybercrime becomes more and more sophisticated. This book provides an unprecedented level of hands-on training to give investigators the skills they need. Investigate packet captures to examine network communications Locate host-based artifacts and analyze network logs Understand intrusion detection systems—and let them do the legwork Have the right architecture and systems in place ahead of an incident Network data is always changing, and is never saved in one place; an investigator must understand how to examine data over time, which involves specialized skills that go above and beyond memory, mobile, or data forensics. Whether you're preparing for a security certification or just seeking deeper training for a law enforcement or IT role, you can only learn so much from concept; to thoroughly understand something, you need to do it. Network Forensics provides intensive hands-on practice with direct translation to real-world application.

With the rapid advancement in technology, myriad new threats have emerged in online environments. The broad spectrum of these digital risks requires new and innovative methods for protection against cybercrimes. The Handbook of Research on Network Forensics and Analysis Techniques is a current research publication that examines the advancements and growth of forensic re-

search from a relatively obscure tradecraft to an important part of many investigations. Featuring coverage on a broad range of topics including cryptocurrency, hand-based biometrics, and cyberterrorism, this publication is geared toward professionals, computer forensics practitioners, engineers, researchers, and academics seeking relevant research on the development of forensic tools. Uncover a digital trail of e-evidence by using the helpful, easy-to-understand information in *Computer Forensics For Dummies!* Professional and armchair investigators alike can learn the basics of computer forensics, from digging out electronic evidence to solving the case. You won't need a computer science degree to master e-discovery. Find and filter data in mobile devices, e-mail, and other Web-based technologies. You'll learn all about e-mail and Web-based forensics, mobile forensics, passwords and encryption, and other e-evidence found through VoIP, voicemail, legacy mainframes, and databases. You'll discover how to use the latest forensic software, tools, and equipment to find the answers that you're looking for in record time. When you understand how data is stored, encrypted, and recovered, you'll be able to protect your personal privacy as well. By the time you finish reading this book, you'll know how to: Prepare for and conduct computer forensics investigations Find and filter data Protect personal privacy Transfer evidence without contaminating it Anticipate legal loopholes and opponents' methods Handle passwords and encrypted data Work with the courts and win the case Plus, *Computer Forensics for Dummies* includes lists of things that everyone interested in computer forensics should know, do, and build. Discover how to

get qualified for a career in computer forensics, what to do to be a great investigator and expert witness, and how to build a forensics lab or toolkit. Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

The Definitive, Up-to-Date Guide to Digital Forensics The rapid proliferation of cyber crime is increasing the demand for digital forensics experts in both law enforcement and in the private sector. In *Digital Archaeology*, expert practitioner Michael Graves has written the most thorough, realistic, and up-to-date guide to the principles and techniques of modern digital forensics. Graves begins by providing a solid understanding of the legal underpinnings of and critical laws affecting computer forensics, including key principles of evidence and case law. Next, he explains how to systematically and thoroughly investigate computer systems to unearth crimes or other misbehavior, and back it up with evidence that will stand up in court. Drawing on the analogy of archaeological research, Graves explains each key tool and method investigators use to reliably uncover hidden information in digital systems. His detailed demonstrations often include the actual syntax of command-line utilities. Along the way, he presents exclusive coverage of facilities management, a full chapter on the crucial topic of first response to a digital crime scene, and up-to-the-minute coverage of investigating evidence in the cloud. Graves concludes by presenting coverage of important professional and business issues associated with building a career in digital forensics, including current licensing and certification requirements. Topics Covered Include Acquiring and analyzing data in ways consistent with forensic procedure Recovering and examining e-mail, Web, and

networking activity Investigating users' behavior on mobile devices Overcoming anti-forensics measures that seek to prevent data capture and analysis Performing comprehensive electronic discovery in connection with lawsuits Effectively managing cases and documenting the evidence you find Planning and building your career in digital forensics *Digital Archaeology* is a key resource for anyone preparing for a career as a professional investigator; for IT professionals who are sometimes called upon to assist in investigations; and for those seeking an explanation of the processes involved in preparing an effective defense, including how to avoid the legally indefensible destruction of digital evidence.

While cloud computing continues to transform developments in information technology services, these advancements have contributed to a rise in cyber attacks; producing an urgent need to extend the applications of investigation processes. *Cybercrime and Cloud Forensics: Applications for Investigation Processes* presents a collection of research and case studies of applications for investigation processes in cloud computing environments. This reference source brings together the perspectives of cloud customers, security architects, and law enforcement agencies in the developing area of cloud forensics.

Exploring Careers in Cybersecurity and Digital Forensics serves as a career guide, providing information about education, certifications, and tools to help those making career decisions within the cybersecurity field.