Managing Security Operations Detection Response Sans

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Digital Forensics and Incident Response - Gerard Johansen 2020-01-29

Build your organization's cyber defense system by effectively implementing digital forensics

and incident management techniques Key Features Create a solid incident response framework and manage cyber incidents effectively Perform malware analysis for effective incident response Explore real-life scenarios that effectively use threat intelligence and modeling techniques Book Description An understanding of how digital forensics integrates with the overall response to cybersecurity incidents is key to securing your organization's infrastructure from attacks. This updated second edition will help you perform cutting-edge digital forensic activities and incident response. After focusing on the fundamentals of incident response that are critical to any information security team, you'll move on to exploring the incident response framework. From understanding its importance to creating a swift and effective response to security incidents, the book will guide you with the help of useful examples. You'll later get up to speed with digital forensic techniques, from acquiring evidence and examining volatile memory through to hard drive examination and network-based evidence. As you progress, you'll discover the role that threat intelligence plays in the incident response process. You'll also learn how to prepare an incident response report that

documents the findings of your analysis. Finally, in addition to various incident response activities, the book will address malware analysis, and demonstrate how you can proactively use your digital forensic skills in threat hunting. By the end of this book, you'll have learned how to efficiently investigate and report unwanted security breaches and incidents in your organization. What you will learn Create and deploy an incident response capability within your own organization Perform proper evidence acquisition and handling Analyze the evidence collected and determine the root cause of a security incident Become well-versed with memory and log analysis Integrate digital forensic techniques and procedures into the overall incident response process Understand the different techniques for threat hunting Write effective incident reports that document the key findings of your analysis Who this book is for This book is for cybersecurity and information security professionals who want to implement digital forensics and incident response in their organization. You will also find the book helpful if you are new to the concept of digital forensics and are looking to get started with the fundamentals. A basic understanding of

operating systems and some knowledge of networking fundamentals are required to get started with this book.

Transforming Cybersecurity: Using COBIT 5 - ISACA 2013-06-18

The cost and frequency of cybersecurity incidents are on the rise, is your enterprise keeping pace? The numbers of threats, risk scenarios and vulnerabilities have grown exponentially. Cybersecurity has evolved as a new field of interest, gaining political and societal attention. Given this magnitude, the future tasks and responsibilities associated with cybersecurity will be essential to organizational survival and profitability. This publication applies the COBIT 5 framework and its component publications to transforming cybersecurity in a systemic way. First, the impacts of cybercrime and cyberwarfare on business and society are illustrated and put in context. This section shows the rise in cost and frequency of security incidents, including APT attacks and other threats with a critical impact and high intensity. Second, the transformation addresses security governance, security management and security assurance. In accordance with the lens concept within COBIT 5, these sections cover all elements of the systemic

transformation and cybersecurity improvements.

Eleventh Hour CISSP - Eric Conrad 2013-10-16

Eleventh Hour CISSP provides you with a study guide keyed directly to the most current version of the CISSP exam. This book is streamlined to include only core certification information and is presented for ease of last minute studying. Main objectives of the exam are covered concisely with key concepts highlighted. The CISSP certification is the most prestigious, globally recognized, vendor neutral exam for information security professionals. Over 67,000 professionals are certified worldwide with many more joining their ranks. This new Second Edition is aligned to cover all of the material in the most current version of the exam's Common Body of Knowledge. All 10 domains are covered as completely and as concisely as possible, giving you the best possible chance of acing the exam. All-new Second Edition updated for the most current version of the exam's Common Body of Knowledge The only guide you need for last minute studying Answers the toughest questions and highlights core topics No fluff - streamlined for maximum efficiency of study – perfect for professionals who are updating

their certification or taking the test for the first time

CASP+ CompTIA Advanced Security Practitioner Study Guide - Nadean H. Tanner 2022-09-15

Prepare to succeed in your new cybersecurity career with the challenging and sought-after CASP+ credential In the newly updated Fourth Edition of CASP+ CompTIA Advanced Security Practitioner Study Guide Exam CAS-004, risk management and compliance expert Jeff Parker walks you through critical security topics and hands-on labs designed to prepare you for the new CompTIA Advanced Security Professional exam and a career in cybersecurity implementation. Content and chapter structure of this Fourth edition was developed and restructured to represent the CAS-004 Exam Objectives. From operations and architecture concepts, techniques and requirements to risk analysis, mobile and small-form factor device security, secure cloud integration, and cryptography, you'll learn the cybersecurity technical skills you'll need to succeed on the new CAS-004 exam, impress interviewers during your job search, and excel in your new career in cybersecurity implementation. This comprehensive book offers: Efficient preparation for a

challenging and rewarding career in implementing specific solutions within cybersecurity policies and frameworks A robust grounding in the technical skills you'll need to impress during cybersecurity interviews Content delivered through scenarios, a strong focus of the CAS-004 Exam Access to an interactive online test bank and study tools, including bonus practice exam questions, electronic flashcards, and a searchable glossary of key terms Perfect for anyone preparing for the CASP+ (CAS-004) exam and a new career in cybersecurity, CASP+ CompTIA Advanced Security Practitioner Study Guide Exam CAS-004 is also an ideal resource for current IT professionals wanting to promote their cybersecurity skills or prepare for a career transition into enterprise cybersecurity.

Purple Team Strategies - David Routin 2022-06-24

Leverage cyber threat intelligence and the MITRE framework to enhance your prevention mechanisms, detection capabilities, and learn top adversarial simulation and emulation techniques Key Features • Apply real-world strategies to strengthen the capabilities of your organization's security system • Learn to not only defend your

system but also think from an attacker's perspective • Ensure the ultimate effectiveness of an organization's red and blue teams with practical tips Book Description With small to large companies focusing on hardening their security systems, the term "purple team" has gained a lot of traction over the last couple of years. Purple teams represent a group of individuals responsible for securing an organization's environment using both red team and blue team testing and integration – if you're ready to join or advance their ranks, then this book is for you. Purple Team Strategies will get you up and running with the exact strategies and techniques used by purple teamers to implement and then maintain a robust environment. You'll start with planning and prioritizing adversary emulation, and explore concepts around building a purple team infrastructure as well as simulating and defending against the most trendy ATT&CK tactics. You'll also dive into performing assessments and continuous testing with breach and attack simulations. Once you've covered the fundamentals, you'll also learn tips and tricks to improve the overall maturity of your purple teaming capabilities along with measuring success with KPIs

and reporting. With the help of real-world use cases and examples, by the end of this book, you'll be able to integrate the best of both sides: red team tactics and blue team security measures. What you will learn • Learn and implement the generic purple teaming process • Use cloud environments for assessment and automation • Integrate cyber threat intelligence as a process • Configure traps inside the network to detect attackers • Improve red and blue team collaboration with existing and new tools • Perform assessments of your existing security controls Who this book is for If you're a cybersecurity analyst, SOC engineer, security leader or strategist, or simply interested in learning about cyber attack and defense strategies, then this book is for you. Purple team members and chief information security officers (CISOs) looking at securing their organizations from adversaries will also benefit from this book. You'll need some basic knowledge of Windows and Linux operating systems along with a fair understanding of networking concepts before you can jump in, while ethical hacking and penetration testing know-how will help you get the most out of this book.

Intelligence-Driven Incident

Response - Scott J Roberts 2017-08-21

Using a well-conceived incident response plan in the aftermath of an online security breach enables your team to identify attackers and learn how they operate. But, only when you approach incident response with a cyber threat intelligence mindset will you truly understand the value of that information. With this practical guide, you'll learn the fundamentals of intelligence analysis, as well as the best ways to incorporate these techniques into your incident response process. Each method reinforces the other: threat intelligence supports and augments incident response, while incident response generates useful threat intelligence. This book helps incident managers, malware analysts, reverse engineers, digital forensics specialists, and intelligence analysts understand, implement, and benefit from this relationship. In three parts, this in-depth book includes: The fundamentals: get an introduction to cyber threat intelligence, the intelligence process, the incident-response process, and how they all work together Practical application: walk through the intelligence-driven incident response (IDIR) process using the F3EAD process—Find, Fix Finish,

Exploit, Analyze, and Disseminate The way forward: explore big-picture aspects of IDIR that go beyond individual incident-response investigations, including intelligence team building

Red Team Development and Operations - James Tubberville 2020-01-20

This book is the culmination of years of experience in the information technology and cybersecurity field. Components of this book have existed as rough notes, ideas, informal and formal processes developed and adopted by the authors as they led and executed red team engagements over many years. The concepts described in this book have been used to successfully plan, deliver, and perform professional red team engagements of all sizes and complexities. Some of these concepts were loosely documented and integrated into red team management processes, and much was kept as tribal knowledge. One of the first formal attempts to capture this information was the SANS SEC564 Red Team Operation and Threat Emulation course. This first effort was an attempt to document these ideas in a format usable by others. The authors have moved beyond SANS training and use this book to detail red team operations in a practical guide.

The authors' goal is to provide practical guidance to aid in the management and execution of professional red teams. The term 'Red Team' is often confused in the cybersecurity space. The terms roots are based on military concepts that have slowly made their way into the commercial space. Numerous interpretations directly affect the scope and quality of today's security engagements. This confusion has created unnecessary difficulty as organizations attempt to measure threats from the results of quality security assessments. You quickly understand the complexity of red teaming by performing a quick google search for the definition, or better yet, search through the numerous interpretations and opinions posted by security professionals on Twitter. This book was written to provide a practical solution to address this confusion. The Red Team concept requires a unique approach different from other security tests. It relies heavily on well-defined TTPs critical to the successful simulation of realistic threat and adversary techniques. Proper Red Team results are much more than just a list of flaws identified during other security tests. They provide a deeper understanding of how an organization would

perform against an actual threat and determine where a security operation's strengths and weaknesses exist.Whether you support a defensive or offensive role in security, understanding how Red Teams can be used to improve defenses is extremely valuable. Organizations spend a great deal of time and money on the security of their systems. It is critical to have professionals who understand the threat and can effectively and efficiently operate their tools and techniques safely and professionally. This book will provide you with the real-world guidance needed to manage and operate a professional Red Team, conduct quality engagements, understand the role a Red Team plays in security operations. You will explore Red Team concepts in-depth, gain an understanding of the fundamentals of threat emulation, and understand tools needed you reinforce your organization's security posture.

Incident Response in the Age of Cloud - Dr. Erdal Ozkaya 2021-02-26

Learn to identify security incidents and build a series of best practices to stop cyber attacks before they create serious consequences Key FeaturesDiscover Incident Response (IR), from its evolution to implementationUnderstand

cybersecurity essentials and IR best practices through real-world phishing incident scenariosExplore the current challenges in IR through the perspectives of leading expertsBook Description Cybercriminals are always in search of new methods to infiltrate systems. Quickly responding to an incident will help organizations minimize losses, decrease vulnerabilities, and rebuild services and processes. In the wake of the COVID-19 pandemic, with most organizations gravitating towards remote working and cloud computing, this book uses frameworks such as MITRE ATT&CK® and the SANS IR model to assess security risks. The book begins by introducing you to the cybersecurity landscape and explaining why IR matters. You will understand the evolution of IR, current challenges, key metrics, and the composition of an IR team, along with an array of methods and tools used in an effective IR process. You will then learn how to apply these strategies, with discussions on incident alerting, handling, investigation, recovery, and reporting. Further, you will cover governing IR on multiple platforms and sharing cyber threat intelligence and the procedures involved in IR in the cloud. Finally, the book concludes with an “Ask the

Experts" chapter wherein industry experts have provided their perspective on diverse topics in the IR sphere. By the end of this book, you should become proficient at building and applying IR strategies pre-emptively and confidently. What you will learnUnderstand IR and its significanceOrganize an IR teamExplore best practices for managing attack situations with your IR teamForm, organize, and operate a product security team to deal with product vulnerabilities and assess their severityOrganize all the entities involved in product security responseRespond to security vulnerabilities using tools developed by Keepnet Labs and BinalyzeAdapt all the above learnings for the cloudWho this book is for This book is aimed at first-time incident responders, cybersecurity enthusiasts who want to get into IR, and anyone who is responsible for maintaining business security. It will also interest CIOs, CISOs, and members of IR, SOC, and CSIRT teams. However, IR is not just about information technology or security teams, and anyone with a legal, HR, media, or other active business role would benefit from this book. The book assumes you have some admin experience. No prior DFIR experience is required. Some infosec knowledge will be a plus but

isn’t mandatory.

Cybersecurity Arm Wrestling - Rafeeq Rehman 2021-04-05 Practitioners in Cybersecurity community understand that they are an unending war with opponents who have varying interests, but are mostly motivated by financial gains. New vulnerabilities are continuously discovered, new technologies are continuously being developed, and attackers are innovative in exploiting flaws to gain access to information assets for financial gains. It is profitable for attackers to succeed only few times. Security Operations Center (SOC) plays a key role in this perpetual arm wrestling to ensure you win most of the times. And if you fail once in a while, you can get back very quickly without much damage. People, who are part of SOC planning, architecture, design, implementation, operations, and incidents response will find this book useful.Many public and private sector organizations have built Security Operations Centers in-house whereas others have outsourced SOC operations to managed security services providers. Some also choose a hybrid approach by keeping parts of SOC operations in-house and outsourcing the rest of it. However, many of these efforts don't bring the intended results

or realize desired business outcomes.This book is an effort to learn from experiences of many SOC practitioners and researchers to find practices that have been proven to be useful while avoiding common pitfalls in building SOC. I have also explored different ideas to find a "balanced" approach towards building a SOC and making informed choices between functions that can/should be kept in-house and the ones that can be outsourced. Even if you are an experienced SOC professional, you will still find few interesting ideas as I have done significant research and interviewed many SOC professionals to include tips to help avoid pitfalls.

Logging and Log Management - Anton Chuvakin 2012-12-31 Logging and Log Management: The Authoritative Guide to Understanding the Concepts Surrounding Logging and Log Management introduces information technology professionals to the basic concepts of logging and log management. It provides tools and techniques to analyze log data and detect malicious activity. The book consists of 22 chapters that cover the basics of log data; log data sources; log storage technologies; a case study on how syslog-ng is deployed in a real environment for log collection; covert logging;

planning and preparing for the analysis log data; simple analysis techniques; and tools and techniques for reviewing logs for potential problems. The book also discusses statistical analysis; log data mining; visualizing log data; logging laws and logging mistakes; open source and commercial toolsets for log data collection and analysis; log management procedures; and attacks against logging systems. In addition, the book addresses logging for programmers; logging and compliance with regulations and policies; planning for log analysis system deployment; cloud logging; and the future of log standards, logging, and log analysis. This book was written for anyone interested in learning more about logging and log management. These include systems administrators, junior security engineers, application developers, and managers. Comprehensive coverage of log management including analysis, visualization, reporting and more Includes information on different uses for logs -- from system operations to regulatory compliance Features case Studies on syslog-ng and actual real-world situations where logs came in handy in incident response Provides practical guidance in the areas of report, log analysis system selection, planning a log analysis system

and log data normalization and correlation

Cloud Security and Privacy - Tim Mather 2009-09-04

You may regard cloud computing as an ideal way for your company to control IT costs, but do you know how private and secure this service really is? Not many people do. With Cloud Security and Privacy, you'll learn what's at stake when you trust your data to the cloud, and what you can do to keep your virtual infrastructure and web applications secure. Ideal for IT staffers, information security and privacy practitioners, business managers, service providers, and investors alike, this book offers you sound advice from three well-known authorities in the tech security world. You'll learn detailed information on cloud computing security that-until now-has been sorely lacking. Review the current state of data security and storage in the cloud, including confidentiality, integrity, and availability Learn about the identity and access management (IAM) practice for authentication, authorization, and auditing of the users accessing cloud services Discover which security management frameworks and standards are relevant for the cloud Understand the privacy aspects you need to consider in

the cloud, including how they compare with traditional computing models Learn the importance of audit and compliance functions within the cloud, and the various standards and frameworks to consider Examine security delivered as a service-a different facet of cloud security

GCIH GIAC Certified Incident Handler All-in-One Exam Guide - Nick Mitropoulos 2020-08-21

This self-study guide delivers complete coverage of every topic on the GIAC Certified Incident Handler exam Prepare for the challenging GIAC Certified Incident Handler exam using the detailed information contained in this effective exam preparation guide. Written by a recognized cybersecurity expert and seasoned author, GCIH GIAC Certified Incident Handler All-in-One Exam Guide clearly explains all of the advanced security incident handling skills covered on the test. Detailed examples and chapter summaries throughout demonstrate real-world threats and aid in retention. You will get online access to 300 practice questions that match those on the live test in style, format, and tone. Designed to help you prepare for the exam, this resource also serves as an ideal on-the-job reference. Covers all exam topics, including: Intrusion analysis and

incident handling Information gathering Scanning, enumeration, and vulnerability identification Vulnerability exploitation Infrastructure and endpoint attacks Network, DoS, and Web application attacks Maintaining access Evading detection and covering tracks Worms, bots, and botnets Online content includes: 300 practice exam questions Test engine that provides full-length practice exams and customizable quizzes

Hacker Techniques, Tools, and Incident Handling - Sean-Philip Oriyano 2018-09-04

Hacker Techniques, Tools, and Incident Handling, Third Edition begins with an examination of the landscape, key terms, and concepts that a security professional needs to know about hackers and computer criminals who break into networks, steal information, and corrupt data. It goes on to review the technical overview of hacking: how attacks target networks and the methodology they follow. The final section studies those methods that are most effective when dealing with hacking attacks, especially in an age of increased reliance on the Web. Written by subject matter experts, with numerous real-world examples, Hacker Techniques, Tools, and Incident Handling, Third Edition provides readers with a clear,

comprehensive introduction to the many threats on our Internet environment and security and what can be done to combat them.

Computer Security Incident Handling Guide (draft) :. - 2012

Network Forensics - Sherri Davidoff 2012-06-18

“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 (lmgsecurity.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.

Security Operations Center - Joseph Muniz 2015-11-02 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

Cybersecurity Operations Handbook - John Rittinghouse, PhD, CISM 2003-10-02 Cybersecurity Operations Handbook is the first book for daily operations teams who install, operate and maintain a range of security technologies to protect corporate infrastructure. Written by experts in security operations, this book provides extensive guidance on almost all aspects of daily operational security, asset protection, integrity management, availability methodology, incident response

and other issues that operational teams need to know to properly run security products and services in a live environment. Provides a master document on Mandatory FCC Best Practices and complete coverage of all critical operational procedures for meeting Homeland Security requirements. · First book written for daily operations teams · Guidance on almost all aspects of daily operational security, asset protection, integrity management · Critical information for compliance with Homeland Security

Offensive Countermeasures - John Strand 2013-07-08

Tired of playing catchup with hackers? Does it ever seem they have all of the cool tools? Does it seem like defending a network is just not fun? This books introduces new cyber-security defensive tactics to annoy attackers, gain attribution and insight on who and where they are. It discusses how to attack attackers in a way which is legal and incredibly useful.

The Official CompTIA Security+ Self-Paced Study Guide (Exam SY0-601) - CompTIA 2020-11-12

CompTIA Security+ Study Guide (Exam SY0-601)

Microsoft Security Operations Analyst Exam Ref SC-200 Certification Guide - Trevor Stuart 2022-03-16

Remediate active attacks to reduce risk to the organization by investigating, hunting, and responding to threats using Microsoft Sentinel, Microsoft Defender for Cloud, and Microsoft 365 Defender Key FeaturesDetect, protect, investigate, and remediate threats using Microsoft Defender for endpointExplore multiple tools using the M365 Defender Security CenterGet ready to overcome real-world challenges as you prepare to take the SC-200 examBook Description Security in information technology has always been a topic of discussion, one that comes with various backgrounds, tools, responsibilities, education, and change! The SC-200 exam comprises a wide range of topics that introduce Microsoft technologies and general operations for security analysts in enterprises. This book is a comprehensive guide that covers the usefulness and applicability of Microsoft Security Stack in the daily activities of an enterprise security operations analyst. Starting with a quick overview of what it takes to prepare for the exam, you'll understand how to implement the learning in real-world scenarios. You'll learn to use Microsoft's security stack, including Microsoft 365 Defender, and Microsoft

Sentinel, to detect, protect, and respond to adversary threats in your enterprise. This book will take you from legacy on-premises SOC and DFIR tools to leveraging all aspects of the M365 Defender suite as a modern replacement in a more effective and efficient way. By the end of this book, you'll have learned how to plan, deploy, and operationalize Microsoft's security stack in your enterprise and gained the confidence to pass the SC-200 exam. What you will learnDiscover how to secure information technology systems for your organizationManage cross-domain investigations in the Microsoft 365 Defender portalPlan and implement the use of data connectors in Microsoft Defender for CloudGet to grips with designing and configuring a Microsoft Sentinel workspaceConfigure SOAR (security orchestration, automation, and response) in Microsoft SentinelFind out how to use Microsoft Sentinel workbooks to analyze and interpret dataSolve mock tests at the end of the book to test your knowledgeWho this book is for This book is for security professionals, cloud security engineers, and security analysts who want to learn and explore Microsoft Security Stack. Anyone looking to take the

SC-200 exam will also find this guide useful. A basic understanding of Microsoft technologies and security concepts will be beneficial.

CISSP Study Guide - Eric Conrad 2012-09-01

The CISSP certification is the most prestigious, globally-recognized, vendor neutral exam for information security professionals. The newest edition of this acclaimed study guide is aligned to cover all of the material included in the newest version of the exam's Common Body of Knowledge. The ten domains are covered completely and as concisely as possible with an eye to acing the exam. Each of the ten domains has its own chapter that includes specially designed pedagogy to aid the test-taker in passing the exam, including: Clearly stated exam objectives; Unique terms/Definitions; Exam Warnings; Learning by Example; Hands-On Exercises; Chapter ending questions. Furthermore, special features include: Two practice exams; Tiered chapter ending questions that allow for a gradual learning curve; and a self-test appendix Provides the most complete and effective study guide to prepare you for passing the CISSP exam—contains only what you need to pass the test, with no fluff! Eric Conrad has prepared hundreds of professionals for

passing the CISSP exam through SANS, a popular and well-known organization for information security professionals Covers all of the new information in the Common Body of Knowledge updated in January 2012, and also provides two practice exams, tiered end-of-chapter questions for a gradual learning curve, and a complete self-test appendix

Securing DevOps - Julien Vehent 2018-08-20

Summary Securing DevOps explores how the techniques of DevOps and security should be applied together to make cloud services safer. This introductory book reviews the latest practices used in securing web applications and their infrastructure and teaches you techniques to integrate security directly into your product. You'll also learn the core concepts of DevOps, such as continuous integration, continuous delivery, and infrastructure as a service. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology An application running in the cloud can benefit from incredible efficiencies, but they come with unique security threats too. A DevOps team's highest priority is understanding those risks and hardening the system against them. About the

Book Securing DevOps teaches you the essential techniques to secure your cloud services. Using compelling case studies, it shows you how to build security into automated testing, continuous delivery, and other core DevOps processes. This experience-rich book is filled with mission-critical strategies to protect web applications against attacks, deter fraud attempts, and make your services safer when operating at scale. You'll also learn to identify, assess, and secure the unique vulnerabilities posed by cloud deployments and automation tools commonly used in modern infrastructures. What's inside An approach to continuous security Implementing test-driven security in DevOps Security techniques for cloud services Watching for fraud and responding to incidents Security testing and risk assessment About the Reader Readers should be comfortable with Linux and standard DevOps practices like CI, CD, and unit testing. About the Author Julien Vehent is a security architect and DevOps advocate. He leads the Firefox Operations Security team at Mozilla, and is responsible for the security of Firefox's high-traffic cloud services and public websites. Table of Contents Securing DevOps PART 1 - Case study: applying layers of security to a

simple DevOps pipeline Building a barebones DevOps pipeline Security layer 1: protecting web applications Security layer 2: protecting cloud infrastructures Security layer 3: securing communications Security layer 4: securing the delivery pipeline PART 2 - Watching for anomalies and protecting services against attacks Collecting and storing logs Analyzing logs for fraud and attacks Detecting intrusions The Caribbean breach: a case study in incident response PART 3 - Maturing DevOps security Assessing risks Testing security Continuous security

21st European Conference on Cyber Warfare and Security - 2022-06-16

The NICE Cyber Security Framework - Izzat Alsmadi 2019-01-24

This textbook is for courses in cyber security education that follow National Initiative for Cybersecurity Education (NICE) KSAs work roles and framework, that adopt the Competency-Based Education (CBE) method. The book follows the CBT (KSA) general framework, meaning each chapter contains three sections, knowledge and questions, and skills/labs for Skills and Abilities. The author makes an explicit balance between knowledge and skills material in information

security, giving readers immediate applicable skills. The book is divided into seven parts: Securely Provision; Operate and Maintain; Oversee and Govern; Protect and Defend; Analysis; Operate and Collect; Investigate. All classroom materials (in the book an ancillary) adhere to the NICE framework. Mirrors classes set up by the National Initiative for Cybersecurity Education (NICE) Adopts the Competency-Based Education (CBE) method of teaching, used by universities, corporations, and in government training Includes content and ancillaries that provide skill-based instruction on compliance laws, information security standards, risk response and recovery, and more

The Practice of Network Security Monitoring - Richard Bejtlich 2013-07-15

Network security is not simply about building impenetrable walls—determined attackers will eventually overcome traditional defenses. The most effective computer security strategies integrate network security monitoring (NSM): the collection and analysis of data to help you detect and respond to intrusions. In The Practice of Network Security Monitoring, Mandiant CSO Richard Bejtlich shows you how to use NSM to add a robust layer of protection around your networks—no prior

experience required. To help you avoid costly and inflexible solutions, he teaches you how to deploy, build, and run an NSM operation using open source software and vendor-neutral tools. You'll learn how to: –Determine where to deploy NSM platforms, and size them for the monitored networks –Deploy stand-alone or distributed NSM installations –Use command line and graphical packet analysis tools, and NSM consoles –Interpret network evidence from server-side and client-side intrusions –Integrate threat intelligence into NSM software to identify sophisticated adversaries There's no foolproof way to keep attackers out of your network. But when they get in, you'll be prepared. The Practice of Network Security Monitoring will show you how to build a security net to detect, contain, and control them. Attacks are inevitable, but losing sensitive data shouldn't be.

Effective Model-Based Systems Engineering - John M. Borky 2018-09-08

This textbook presents a proven, mature Model-Based Systems Engineering (MBSE) methodology that has delivered success in a wide range of system and enterprise programs. The authors introduce MBSE as the state of the practice in the vital Systems

Engineering discipline that manages complexity and integrates technologies and design approaches to achieve effective, affordable, and balanced system solutions to the needs of a customer organization and its personnel. The book begins with a summary of the background and nature of MBSE. It summarizes the theory behind Object-Oriented Design applied to complex system architectures. It then walks through the phases of the MBSE methodology, using system examples to illustrate key points. Subsequent chapters broaden the application of MBSE in Service-Oriented Architectures (SOA), real-time systems, cybersecurity, networked enterprises, system simulations, and prototyping. The vital subject of system and architecture governance completes the discussion. The book features exercises at the end of each chapter intended to help readers/students focus on key points, as well as extensive appendices that furnish additional detail in particular areas. The self-contained text is ideal for students in a range of courses in systems architecture and MBSE as well as for practitioners seeking a highly practical presentation of MBSE principles and techniques.

Information Security - Ali Ismail Awad 2018

The book has two parts and contains fifteen chapters. First part discussed the theories and foundations of information security. Second part covers the technologies and application of security.

Official (ISC)2® Guide to the CISSP®-ISSEP® CBK® - Susan Hansche 2005-09-29

The Official (ISC)2 Guide to the CISSP-ISSEP CBK provides an inclusive analysis of all of the topics covered on the newly created CISSP-ISSEP Common Body of Knowledge. The first fully comprehensive guide to the CISSP-ISSEP CBK, this book promotes understanding of the four ISSEP domains: Information Systems Security Engineering (ISSE); Certifica

Information Security Handbook - Darren Death 2017-12-08

Implement information security effectively as per your organization's needs. About This Book Learn to build your own information security framework, the best fit for your organization Build on the concepts of threat modeling, incidence response, and security analysis Practical use cases and best practices for information security Who This Book Is For This book is for security analysts and professionals who deal with security mechanisms in an

organization. If you are looking for an end to end guide on information security and risk analysis with no prior knowledge of this domain, then this book is for you. What You Will Learn Develop your own information security framework Build your incident response mechanism Discover cloud security considerations Get to know the system development life cycle Get your security operation center up and running Know the various security testing types Balance security as per your business needs Implement information security best practices In Detail Having an information security mechanism is one of the most crucial factors for any organization. Important assets of organization demand a proper risk management and threat model for security, and so information security concepts are gaining a lot of traction. This book starts with the concept of information security and shows you why it's important. It then moves on to modules such as threat modeling, risk management, and mitigation. It also covers the concepts of incident response systems, information rights management, and more. Moving on, it guides you to build your own information security framework as the best fit for your organization. Toward

the end, you'll discover some best practices that can be implemented to make your security framework strong. By the end of this book, you will be well-versed with all the factors involved in information security, which will help you build a security framework that is a perfect fit your organization's requirements. Style and approach This book takes a practical approach, walking you through information security fundamentals, along with information security best practices.

Python for Offensive PenTest - Hussam Khrais 2018-04-26 Your one-stop guide to using Python, creating your own hacking tools, and making the most out of resources available for this programming language Key Features Comprehensive information on building a web application penetration testing framework using Python Master web application penetration testing using the multi-paradigm programming language Python Detect vulnerabilities in a system or application by writing your own Python scripts Book Description Python is an easy-to-learn and cross-platform programming language that has unlimited third-party libraries. Plenty of open source hacking tools are written in Python, which can be easily integrated within your script. This book is

packed with step-by-step instructions and working examples to make you a skilled penetration tester. It is divided into clear bite-sized chunks, so you can learn at your own pace and focus on the areas of most interest to you. This book will teach you how to code a reverse shell and build an anonymous shell. You will also learn how to hack passwords and perform a privilege escalation on Windows with practical examples. You will set up your own virtual hacking environment in VirtualBox, which will help you run multiple operating systems for your testing environment. By the end of this book, you will have learned how to code your own scripts and mastered ethical hacking from scratch. What you will learn Code your own reverse shell (TCP and HTTP) Create your own anonymous shell by interacting with Twitter, Google Forms, and SourceForge Replicate Metasploit features and build an advanced shell Hack passwords using multiple techniques (API hooking, keyloggers, and clipboard hijacking) Exfiltrate data from your target Add encryption (AES, RSA, and XOR) to your shell to learn how cryptography is being abused by malware Discover privilege escalation on Windows with practical examples

Countermeasures against most attacks Who this book is for This book is for ethical hackers; penetration testers; students preparing for OSCP, OSCE, GPEN, GXPN, and CEH; information security professionals; cybersecurity consultants; system and network security administrators; and programmers who are keen on learning all about penetration testing.

Ten Strategies of a World-Class Cybersecurity Operations Center - Carson Zimmerman 2014-07-01

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.

Security Information and Event Management (SIEM) Implementation - David Miller 2010-11-05

Implement a robust SIEM system Effectively manage the security information and events produced by your network with help from this authoritative guide. Written by IT security experts, Security Information and Event Management (SIEM) Implementation shows you how to deploy SIEM technologies to monitor, identify, document, and respond to security threats and reduce false-positive alerts. The book explains how to implement SIEM products from different vendors, and discusses the strengths, weaknesses, and advanced tuning of these systems. You'll also learn how to use SIEM capabilities for business intelligence. Real-world case studies are included in this comprehensive resource. Assess your organization's business models, threat models, and regulatory compliance requirements Determine the necessary SIEM components for small- and medium-size businesses Understand SIEM anatomy—source device, log collection, parsing/normalization of logs, rule engine, log storage, and event monitoring Develop an effective incident response

program Use the inherent capabilities of your SIEM system for business intelligence Develop filters and correlated event rules to reduce false-positive alerts Implement AlienVault's Open Source Security Information Management (OSSIM) Deploy the Cisco Monitoring Analysis and Response System (MARS) Configure and use the Q1 Labs QRadar SIEM system Implement ArcSight Enterprise Security Management (ESM) v4.5 Develop your SIEM security analyst skills

Research Anthology on Business Aspects of Cybersecurity - Information Resources Management Association 2021-09-13

"This reference book considers all emerging aspects of cybersecurity in the business sector including frameworks, models, best practices, and emerging areas of interest, discussing items such as audits and risk assessments that businesses can conduct to ensure the security of their systems, training and awareness initiatives for staff that promotes a security culture and software and systems that can be used to secure and manage cybersecurity threats"--

Virtualization Security - Dave Shackleford 2012-11-08

Securing virtual environments for VMware, Citrix, and

Microsoft hypervisors Virtualization changes the playing field when it comes to security. There are new attack vectors, new operational patterns and complexity, and changes in IT architecture and deployment life cycles. What's more, the technologies, best practices, and strategies used for securing physical environments do not provide sufficient protection for virtual environments. This book includes step-by-step configurations for the security controls that come with the three leading hypervisor--VMware vSphere and ESXi, Microsoft Hyper-V on Windows Server 2008, and Citrix XenServer. Includes strategy for securely implementing network policies and integrating virtual networks into the existing physical infrastructure Discusses vSphere and Hyper-V native virtual switches as well as the Cisco Nexus 1000v and Open vSwitch switches Offers effective practices for securing virtual machines without creating additional operational overhead for administrators Contains methods for integrating virtualization into existing workflows and creating new policies and processes for change and configuration management so that virtualization can help make these critical operations

processes more effective This must-have resource offers tips and tricks for improving disaster recovery and business continuity, security-specific scripts, and examples of how Virtual Desktop Infrastructure benefits security.

Digital Forensics and Incident Response - Gerard Johansen 2017-07-24

A practical guide to deploying digital forensic techniques in response to cyber security incidents About This Book Learn incident response fundamentals and create an effective incident response framework Master forensics investigation utilizing digital investigative techniques Contains real-life scenarios that effectively use threat intelligence and modeling techniques Who This Book Is For This book is targeted at Information Security professionals, forensics practitioners, and students with knowledge and experience in the use of software applications and basic command-line experience. It will also help professionals who are new to the incident response/digital forensics role within their organization. What You Will Learn Create and deploy incident response capabilities within your organization Build a solid foundation for acquiring and handling suitable evidence

for later analysis Analyze collected evidence and determine the root cause of a security incident Learn to integrate digital forensic techniques and procedures into the overall incident response process Integrate threat intelligence in digital evidence analysis Prepare written documentation for use internally or with external parties such as regulators or law enforcement agencies In Detail Digital Forensics and Incident Response will guide you through the entire spectrum of tasks associated with incident response, starting with preparatory activities associated with creating an incident response plan and creating a digital forensics capability within your own organization. You will then begin a detailed examination of digital forensic techniques including acquiring evidence, examining volatile memory, hard drive assessment, and network-based evidence. You will also explore the role that threat intelligence plays in the incident response process. Finally, a detailed section on preparing reports will help you prepare a written report for use either internally or in a courtroom. By the end of the book, you will have mastered forensic techniques and incident response and you will have a solid foundation on

which to increase your ability to investigate such incidents in your organization. Style and approach The book covers practical scenarios and examples in an enterprise setting to give you an understanding of how digital forensics integrates with the overall response to cyber security incidents. You will also learn the proper use of tools and techniques to investigate common cyber security incidents such as malware infestation, memory analysis, disk analysis, and network analysis.

Security Log Management - Jacob Babbin 2006-01-27

This book teaches IT professionals how to analyze, manage, and automate their security log files to generate useful, repeatable information that can be use to make their networks more efficient and secure using primarily open source tools. The book begins by discussing the "Top 10 security logs that every IT professional should be regularly analyzing. These 10 logs cover everything from the top workstations sending/receiving data through a firewall to the top targets of IDS alerts. The book then goes on to discuss the relevancy of all of this information. Next, the book describes how to script open source reporting tools like

Tcpdstats to automatically correlate log files from the various network devices to the “Top 10 list. By doing so, the IT professional is instantly made aware of any critical vulnerabilities or serious degradation of network performance. All of the scripts presented within the book will be available for download from the Syngress Solutions Web site. Almost every operating system, firewall, router, switch, intrusion detection system, mail server, Web server, and database produces some type of “log file. This is true of both open source tools and commercial software and hardware from every IT manufacturer. Each of these logs is reviewed and analyzed by a system administrator or security professional responsible for that particular piece of hardware or software. As a result, almost everyone involved in the IT industry works with log files in some capacity. * Provides turn-key, inexpensive, open source solutions for system administrators to analyze and evaluate the overall performance and security of their network * Dozens of working scripts and tools presented throughout the book are available for download from Syngress Solutions Web site. * Will save system administrators countless hours

by scripting and automating the most common to the most complex log analysis tasks

Rational Cybersecurity for Business - Dan Blum 2020-06-27

Use the guidance in this comprehensive field guide to gain the support of your top executives for aligning a rational cybersecurity plan with your business. You will learn how to improve working relationships with stakeholders in complex digital businesses, IT, and development environments. You will know how to prioritize your security program, and motivate and retain your team. Misalignment between security and your business can start at the top at the C-suite or happen at the line of business, IT, development, or user level. It has a corrosive effect on any security project it touches. But it does not have to be like this. Author Dan Blum presents valuable lessons learned from interviews with over 70 security and business leaders. You will discover how to successfully solve issues related to: risk management, operational security, privacy protection, hybrid cloud management, security culture and user awareness, and communication challenges. This book presents six priority areas to focus on to maximize the effectiveness of your cybersecurity program: risk

management, control baseline, security culture, IT rationalization, access control, and cyber-resilience. Common challenges and good practices are provided for businesses of different types and sizes. And more than 50 specific keys to alignment are included. What You Will Learn Improve your security culture: clarify security-related roles, communicate effectively to businesspeople, and hire, motivate, or retain outstanding security staff by creating a sense of efficacy Develop a consistent accountability model, information risk taxonomy, and risk management framework Adopt a security and risk governance model consistent with your business structure or culture, manage policy, and optimize security budgeting within the larger business unit and CIO organization IT spend Tailor a control baseline to your organization's maturity level, regulatory requirements, scale, circumstances, and critical assets Help CIOs, Chief Digital Officers, and other executives to develop an IT strategy for curating cloud solutions and reducing shadow IT, building up DevSecOps and Disciplined Agile, and more Balance access control and accountability approaches, leverage modern digital identity standards to improve digital relationships,

and provide data governance and privacy-enhancing capabilities Plan for cyber-resilience: work with the SOC, IT, business groups, and external sources to coordinate incident response and to recover from outages and come back stronger Integrate your learnings from this book into a quick-hitting rational cybersecurity success plan Who This Book Is For Chief Information Security Officers (CISOs) and other heads of security, security directors and managers, security architects and project leads, and other team members providing security leadership to your business

CISSP Study Guide - Eric Conrad 2015-12-08

CISSP Study Guide, Third Edition provides readers with information on the CISSP certification, the most prestigious, globally-recognized, vendor-neutral exam for information security professionals. With over 100,000 professionals certified worldwide, and many more joining their ranks, this new third edition presents everything a reader needs to know on the newest version of the exam's Common Body of Knowledge. The eight domains are covered completely and as concisely as possible, allowing users to ace the exam. Each domain has its

own chapter that includes a specially-designed pedagogy to help users pass the exam, including clearly-stated exam objectives, unique terms and definitions, exam warnings, "learning by example" modules, hands-on exercises, and chapter ending questions. Provides the most complete and effective study guide to prepare users for passing the CISSP exam, giving them exactly what they need to pass the test Authored by Eric Conrad who has prepared hundreds of professionals for passing the CISSP exam through SANS, a popular and well-known organization for information security professionals Covers all of the new information in the Common Body of Knowledge updated in January 2015, and also provides two exams, tiered end-of-chapter questions for a gradual learning curve, and a complete self-test appendix

Applied Network Security Monitoring - Chris Sanders 2013-11-26

Applied Network Security Monitoring is the essential guide to becoming an NSM analyst from the ground up. This book takes a fundamental approach to NSM, complete with dozens of real-world examples that teach you the key concepts of NSM. Network security monitoring is based on the principle that prevention

eventually fails. In the current threat landscape, no matter how much you try, motivated attackers will eventually find their way into your network. At that point, it is your ability to detect and respond to that intrusion that can be the difference between a small incident and a major disaster. The book follows the three stages of the NSM cycle: collection, detection, and analysis. As you progress through each section, you will have access to insights from seasoned NSM professionals while being introduced to relevant, practical scenarios complete with sample data. If you've never performed NSM analysis, Applied Network Security Monitoring will give you an adequate grasp on the core concepts needed to become an effective analyst. If you are already a practicing analyst, this book will allow you to grow your analytic technique to make you more effective at your job. Discusses the proper methods for data collection, and teaches you how to become a skilled NSM analyst Provides thorough hands-on coverage of Snort, Suricata, Bro-IDS, SiLK, and Argus Loaded with practical examples containing real PCAP files you can replay, and uses Security Onion for all its lab examples Companion website includes up-to-date blogs from

the authors about the latest developments in NSM

Agile Security Operations - Hinne Hettema 2022-02-17

Get to grips with security operations through incident response, the ATT&CK framework, active defense, and agile threat intelligence Key FeaturesExplore robust and predictable security operations based on measurable service performanceLearn how to improve the security posture and work on security auditsDiscover ways to integrate agile security operations into development and operationsBook Description Agile security operations allow organizations to survive cybersecurity incidents, deliver key insights into the security posture of an organization, and operate security as an integral part of development and operations. It is, deep down, how security has always operated at its best. Agile Security Operations will teach you how to implement and operate an agile security operations model in your organization. The book focuses on the culture, staffing, technology, strategy, and tactical aspects of security operations. You'll learn how to establish and build a team and transform your existing team into one that can execute agile security operations. As you

progress through the chapters, you'll be able to improve your understanding of some of the key concepts of security, align operations with the rest of the business, streamline your operations, learn how to report to senior levels in the organization, and acquire funding. By the end of this Agile book, you'll be ready to start implementing agile security operations, using the book as a handy reference. What you will learnGet acquainted with the changing landscape of security operationsUnderstand how to sense an attacker's motives and capabilitiesGrasp key concepts of the kill chain, the ATT&CK framework, and the Cynefin frameworkGet to grips with designing and developing a defensible security architectureExplore detection and response engineeringOvercome challenges in measuring the security postureDerive and communicate business values through security operationsDiscover ways to implement security as part of development and business operationsWho this book is for This book is for new and established CSOC managers as well as CISO, CDO, and CIO-level decision-makers. If you work as a cybersecurity engineer or analyst, you'll find this book useful. Intermediate-

level knowledge of incident response, cybersecurity, and threat intelligence is necessary to get started with the book.